



NONCONFORMANCE - REPORT LOG & STATUS BOOK

2-2-74 10-1-76
 1-2-76 9-1-76
 9-5-75 11-4-75 12-4-75
 12. 11-5-75 12-75 2-3-75, 3-3-75
 REPORT DATE
 PAGE COMPL. 2-10-75
 Q.C. ENG. SIGN

1. PROJECT NO. 7220

2. NCR NO.	3. ORIG. DATE	4. PREPARED BY	5. NONCONFORMANCE DESCRIPTION/REMARKS	STATUS					
				6. ROUTE	7. DATE XMTD	8. DATE RETD	9. DATE CLOSED	10. CLOSED BY	
244	12-4-74	R.A.Moray	Bulk Items. Bolts not properly marked Varies	Field 12-4-74	No	12-16-74	1-9-75	R.A.Moray	
245	12-	R. Revereza	C-231. Aux Bldg #8 Rebars broken, Walls #27 & #29 1.203	Field 12-9-74	No	12-9-74	3-25-75	A.L.Boulden	
246	12-	M. Hopfenspirger	C-110. Liner Plate surface defects, S6-15-U-2 & S5-13-U-2 1.109	Field 12-9-74	No	1-14-75 2-10-75	4-27-76	A. L. Albert	
247	12-	J.C.Fitzgerald	C-231. Unit #1 Base Slab, crack in Conc Az 300-420 1.105	Field 12-10-74	No	12-13-74	2-7-75	L.R.Albert	
248	12-	R. Revereza	C-231. Aux Bldg blackout for Structural Beams omitted 1.205	Field 12-11-74	No	12-11-74	1-14-75	L. Shively	
249	12-	L. Johnson	C-211. Excessive Structural Backfill lift placed 1.002	Field 12-11-74	No	12-12-74	12-12-74	L. Johnson	
250	12-74	J. Aldridge	C-2. Damaged Semi-Rigid Sheathing 1.107	Field 12-13-74	No	1-29-75	12-10-75	R. A. Moray	
251	12-13-74	E. J. Manning	C-38. Damaged Structural Steel 1.201	Field 12-13-74	No	1-8-75	1-24-75	8-14-75	R.A.Moray
252	12-13-74	F. Etheridge	C-111. Wrong welding procedure used 1.109	Field 12-13-74	No	12-17-74	12-30-74	12-31-74	A.L.Boulden
253	12-17-74	E.J.Manning	C-38. Damaged Structural Steel, shipment C-10 1.201	Field 12-17-74	No	1-8-75	1-24-75	8-14-75	R.A.Moray
254	12-18-74	A. Boos	C-231. Aux Bldg Wall, Rebar coverage 1.203	Field 12-19-74	No	12-19-74	12-20-74	12-20-74	L.R.Albert
255	12-19-74	W.C.O'Neil	C-111. Gouges on edge of Dome Liner Plate RD-9-13 1.109	Field 12-19-74	NO	12-19-74	4-26-76	W. M. Pardee	

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412	4-26-76	T. R. Lieb	C-230. Flyash fineness, User Test	Field	4-29	7-8-76	7-12-76	L. R. Albert B. T. Cheek
			1.105, 1.205	4-27-76	-76	12-23-76		
413	4-26	T. R. Lieb	C-230. Batch Plant Cement Scales broke	Field	4-29	DEX 4-30-76	4-30-76	L. R. Albert
			during calibration 1.105, 1.205	4-27-76	-76	5-24-76	5-24-76	
414	4-29-76	R. A. Moray	M-104A. Documentation and Code Data	Field &	6-11-	7-6-76	8-26-76	P. M. Pitts
			Plate 2ea pipe spools. ASME 4.1353	4-29-76	76			
415	4-29-76	H. Boleen	M-106. Hangers fabricated and shipped w/o	Field	5-28-	7-8-76		
			sketches being approved ASME 4.102, 4.112	4-29-76	76			
416	4-30-76	A. L. Boulden	ASME Section III. Field Weld, Unit #2 Sump.	Field	6-1-76	7-8-76	7-13-76	W. M. Parde
			X-ray requirements violated ASME 4.134	4-30-76				
417	5-4-76	A. L. Boulden	C-III. Unit #1 Sump, weld in need of repair	Field	No	6-11-		H. Boleen
			after pressure test 4.128	3-4-76	-76			
418	5-4-76	R. A. Moray	M-104A. Documentation and Code Data	Field	5-20-76	6-3-	10-20-76	R. A. Moray
			Plate on pipe spools ASME 4.164, 4.174, 4.192	& MS		-76		
419	5-4-76	H. Boleen	C-233A. Anchor Bolts dimensioned short	MS	No	5-24-76	7-22-76	H. Boleen
			1.102	5-5-76				
420	5-5-76	H. Boleen	M-120. Valve tagging varies from document	MS 6-1-76	Field No	6-11-76	6-15-76	H. Boleen
			marking on MO Valves ASME Varies	5-11-76				
421	5-5-76	C. H. Nelson	C-210. Ramp north of Aux Bldg, moisture	Field	5-21-76	6-22-76	6-23-76	L. R. Alberts
			content high. 1.004	5-12-76				
422	5-10-76	P. W. Ratter	M-106. Linear Indications on Hanger Welds	Field	No	6-11-76	7-15-76	P. W. Ratter
			4.102	5-19-76				
423	5-10-76	P. M. Pitts	M-104. Pipe Spools Air Quenched, not	Field	5-28	6-16-76	6-17-76	P. M. Pitts
			Water Quenched. 4.144 ASME	5-28-76	-76			



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448	6-21-76	P. M. Pitts	M-104A. Documentation for 1HBC-133-S616-7-6 misidentified ASME 4.164	Field 6-22-76	No	7-22-76	12-21-76	M. P. Dooling
449	6-22-76	R. S. Morrow	M-106. Incorrect ^{Dwg.} Rev. sent with Hanger 12-1GCB-25-H14 ASME 4.102	Field 6-23-76	No	7-30-76	8-26-76	R. S. Morrow
450	6-22-76	R. S. Morrow	M-106. Incorrect ^{Dwg.} Rev. and Bechtel Approval level 4 sent w/ Hangers ASME 4.102, 4.112, 4.162	Field 6-23-76	8-5-76	9-16-76		
451	6-23-76	H. Boleen	M-104A. Venturi lacking from spool 2HBC-123-S617-8-4 ASME 4.174	Field 6-24-76	7-26-76	10-1-76	10-12-76	H. D. Foster
452	6-23-76	R. S. Morrow	M-106AC. Pipe Hanger 18-1HBC-133-16 fabricated to a Bechtel level 4 sketch ASME 4.162	Field 6-28-76	8-5-76	8-23-76	11-30-76	P. M. Pitts
453	6-23-76	R. S. Morrow	M-106AC. Incorrect Dwg. Rev. sent with pipe hanger assemblies ASME 4.172; 4.191; 4.341	Field 6-28-76	No	8-5-76	9-29-76	
454	6-24-76	J. R. Behres	M-204. Incorrect stamping of 26" yard piping.. ASME 4.192	Field 6-24-76	No	7-2-76	7-7-76	J. R. Behres
455	6-24-76	W.M.Pardee	C-111. Heat Number discrepancy on Dome Liner Plate assemblies 1.109	Field 6-24-76	No	8-27-76	9-24-76	W.M.Pardee
456	6-28-76	W. M. Pardee	C-111. Shop Assembly Untraceable to Documentation Hit#21302 Slab#10 1.109	Field 6-28-76	No	8-31-76	9-16-76	W. M. Pardee
457	6-28-76	W.M.Pardee	M-120. Linear indications found on 16" Valve S/N 3N-641 ASME 4.164	Field 6-28-76	8-5-76	9-20-76	11-15-76	
458	7-1-76	R. S. Morrow	M-106AC. Wrong Dwg. Revs. on Hangers fab. to level 4 dwgs. ASME 4.102, 4.112, 4.172, 4.191	Field 7-1-76	8-5-76	9-16-76		
459	7-2-76	H. Boleen	M-104A. G-321-D not submitted. Sweepolet not capped. ASME 4.192	Field 7-6-76	No	8-5-76	8-19-76	H. Boleen



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2 NCR NO.	3 DATE	4 NONCONFORMANCE DESCRIPTION / REMARKS	5 DISPO.	6 DATE NCR CLOSED	7 CLOSED BY
497	8-23-76	M-106AC. Pipe clamps configurations not in agreement with Bechtel Eng. NDE documentation not included.	Use as is.	11-22-76	P. M. Pitts
498	8-24-76	C-230. Concrete placed in Pour CC(662.92)b ¹ had a temperature of 76°	Use as is	Telex 8-26-76 9-8-76	B. T. Cheek E. Dutton
499	8-24-76	C-230. Entrained Air in concrete lower than the required 3 percent for Pour Y (603)a	Use as is	10-14-76	D. L. Osborn
500	8-24-76	M-1.35. 3 gauges do not correspond with the packing list.	Non Q No Dispo	11-4-76	R. A. Moray
501	8-25-76	C-231. 4 Dowels not embedded in 'D' line. 3'9" East of 6.6 Line, at El. 614'0", Aux. Bldg.	Repair	12-2-76	D. E. Plowman
502	8-26-76	E-42. PVC Conduit IBC007 damaged during repair of IBC008.	Repair	11-4-76	D. T. Davis
503	8-26-76	C-233. Channel and Plate Embeds not piece marked upon receipt.	Use as is	10-4-76	H. Boleen
504	8-26-76	M-204. Yard Piping, welding began upon a rejected fit-up.	Rework	9-3-76	A. L. Boulden
505	8-26-76	C-III. As-built location out of tolerance. Unit #2 AZ 207 ⁰ Elev. 668'6"	Use as is	Telex. 11-19-76 11-29-76	D. L. Osborn D. L. Osborn
506	8-27-76	C-305. Two rebar cut at Hanger 18-2HBC-133-H6 without prior Project Engineering approval.	Use as is	11-2-76	B. T. Cheek
507	8-30-76	C-230. Mortar sand has greater water demand ratio than allowed by ASTM C-144-70.	Reject Use as is	11-11-76	B. T. Cheek
508	8-31-76	C-230. Flyash content of concrete placed in CC(619.5) a higher than allowable limit.			
509	8-31-76	C-231. Curing of pour A(633.2) a, surface appeared dry.	Use as is	10-26-76	B. T. Cheek
510	9-2-76	C-208. 43 Density tests on Incoming Structural Sand Gradations failed to meet minimum volume.	Use as is	11-23-76	B. T. Cheek
511	9-2-76	C-231. 1-#5 dowel broken at temp. const. opening. Aux. Bldg. 614'0"	Std. Repair	12-2-76	D. E. Plowman
512	9-3-76	M-106. Hangers received, dwgs. not approved, and parts not identified.	Rework Doc.		
513	9-3-76	M-106. Hangers received, parts not identified properly.	Rework Use as is, Doc.		
514	9-7-76	C/233A. Channel and Plates received without piece markings. F-14439.	Use as is	10-4-76	H. Boleen
515	9-7-76	E-20. Weld Neck Flanges received without coatings, nicked, scratches.			



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2 NCR NO.	3 DATE	4 NONCONFORMANCE DESCRIPTION / REMARKS	5 DISPO.	6 DATE NCR CLOSED	7 CLOSED BY
516	9-7-76	M-106. Hangers received, not traceable markings, different revision on Packing List than Dwg. rec'd.	Documentation	10-21-76	R. S. Morrow
517	9-9-76	M-1.18. Support feet of Heat Exchangers do not agree with details on drawing.	Rework	12-6-76	M. F. Dooling
518	9-10-76	M-106. Packing List does not agree w/dwgs. sent. Dwg. calls for 'I' Beam whereas a "B' Beam was sent.	Doc. & Use as is		
519	9-13-76	Dwg. C-288. Aux. Bldg. slabs 624'6". Clear cover for Top Dowels vary between 2 and 3-1/2 inches.	Use as is	11-16-76	M. E. Foote
520	9-10-76	C-208. Cylinders were not stripped within 24 hours after casting. Cylinder sets #998 and #999.	Use as is	10-29-76	B. T. Cheek
521	9-10-76	M-106AC. Hangers and related sketches for two hangers have same mark number.	Use as is		
522	9-13-76	M-106. Figure 211 Pipe clamps do not conform to the applicable sketches bill of material.	Use as is	11-22-76	R. S. Morrow
523	9-13-76	M-120. Internal surface of valve had a light film of rust.	Use as is		
524	9-13-76	M-1.35. NNI does not have a Material of Conformance.	Non Q No Dispo	11-4-76	R. A. Moray
525	9-13-76	M-1.35. Thermocouple Assemblies not traceable to the Certificate of Conformance.	Non Q No Dispo	11-15-76	J. P. Connolly
526	9-13-76	M-1.35. Pressure Switches, documentation packages not received.	Non Q No Dispo	11-15-76	J. P. Connolly
527	9-17-76	C-230. Entrained air in concrete exceeded spec. requirements. Aux. Bldg. Pour A(629.5)a	Use as is	11-2-76	B. T. Cheek
528	9-17-76	M-204. Rust on spool pieces @FW 37, M-610 Sht. 5.	Repair	12-17-76	M. F. Dooling
529	9-17-76	M-106 AC. Sway Strut 'W' Dimension. Size of piece does not agree with size on sketch.	No Nonconformance	9-23-76	P. M. Pitts
530	9-21-76	M-51. Heat Exchanger 2E-73A has rust and scale on shell side.	Rework	10-8-76	C. Groat
531	9-22-76	C-233A. Plate dimensioned two different thicknesses on same drawing.	ReworkDoc	12-15-76	R. S. Morrow
532	9-23-76	M-104A. G-321-D not sent for 12" 150# Flange.	No Nonconformance	9-24-76	H. Boleen
533	9-23-76	M-106AC. Random Hanger Support hanger rod was not threaded as required.	No Nonconformance	10-7-76	R. S. Morrow
534	9-23-76	Dwg. C-256. Clear cover for rebar out of tolerance. Aux. Bldg. West Transfer. Tube Slab	Use as is.	Telex. 9-28-76	M. E. Foote



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535	9-23-76	C-230. Flyash content in concrete placed in Pour Y(623.0)a below minimum allowable weight.	No Nonconformance	11-8-76	B. T. Cheek
536	9-24-76	M-104A. 18" LR 90° Ell contains cracks, on Spool 2HBC-131-S617-9-7.	Reject		
537	9-24-76	M-106AC. Pipe Clamp does not conform to the sketches Bill of Material. Hanger MK 2-1/2-1CCB-10-H4	Use as is.	11-22-76	R. S. Morrow
538	9-24-76	M-104A. Shop Traveler Form, does not agree with the Code Data Plate or Code Data Form. 1-HBC-87-S619-7-2	Documentation	12-21-76	M. P. Dooling
539	9-27-76	C-233A. F-14430. Two ea. G4, J4, & K4 Beams. Reentrant corners not filleted to a 1/2" radius.	Use as is	11-18-76	H. Boleen
540	9-28-76	C-39. Reinforcing Steel Received does not correspond with fabrication on Inland Ryerson Dwg.	Rework and Reject	11-5-76	J. R. Slifer
541	9-28-76	C-208. Concrete Cylinders had a higher curing temperature than allowable maximum.	Use as is	11-23-76	B. T. Cheek
542	9-27-76	Dwg. C-276. Aux. Bldg. El. 528'6". #11 dowels omitted. 7.8 line for the north 2'6" of the slab.	Repair		
543	9-29-76	M-93. Nuts and bolts not secured, guard not provided on limit switch of crane.			
544	9-29-76	M-104A. Gaskets, wrong type of spiral wound gaskets marking, documentation.			
545	9-29-76	C-50A. Four Polar Crane Girder Support Brackets Damaged.	Std. repair		
546	9-30-76	C-39. Discrepancies in Vendor Dwg. as to Rebar Fabricated and Rebar Received.	Rework	10-1-76	R. A. Moray
547	9-30-76	M-104A. MTR's lack Stress-Rupture and Cone Stripping Tests for studs and nuts.			
548	10-1-76	C-233A. P14 Pipe Restraint Embeds fillet welds have some incorrect dimensions.	Use as is	11-5-76	J. R. Slifer
549	10-4-76	C-38. Reactor Bldg Structural Steel, cutting past point of tangency.	Std. Repair		
550	10-4-76	M-104A. Gaskets, wrong type of spiral wound gaskets marking, documentation.			
551	10-4-76	C-230. Low air content on one ticket, pour#C(593.5)a	Use as is	11-23-76	B.T. Cheek
552	10-5-76	Spec. C-305. Expansion anchors used for Class II Piping over 8" in diameter.	Repair		
553	10-5-76	C-231. Two sister splices taken from 90 Production instead of four splices.			



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554	10-6-76	Dwg. C-202. 1-#6 dowel missing at El. 624'0", 12' west of 6,2 on 'A' line wall. Aux. Bldg.	Repair	11-19-76	M. E. Foote
555	10-6-76	C-231. 2-#6 rebar damaged by concrete drilling. El. 624'0" @ 'B' line wall. Aux. Bldg.	Use as is	11-16-76	M. E. Foote
556	10-6-76	M-104A. Studs do not include the results of the stress-rupture test on the Certified MTR	Use as is	12-6-76	R. S. Morrow
557	10-6-76	C-38. Dwg. -C-38-638. Plate bent at an angle of 3° due to a cracked weld.	Std. Repair		
558	10-7-76	C-305. Expansion anchors used to fasten hanger 10-1FCB-19-H7 to wall. (over 8" in diameter)	Reject		
559	10-6-76	M-120. Two valves have a film of rust on the internal surfaces. Item #5.3 & 5.4	Use as is		
560	10-8-76	M-1.17. Quality Documentation Package has not been received at the jobsite.			
561	10-11-76	M-93. Aux. Bldg. Crane components exposed to the weather.	Rework		
562	10-13-76	Dwg. M-616 Sht. 7. Weld completed without the Authorized Inspector's Hold Point on WR-19 Form	Use as is	12-6-76	P. W. Ratter
563	10-14-76	M-104A. ASME III Class 2 & 3 Studs and Nuts, marking & Documentation	Documentation & Reject		
564	10-13-76	Dwg. C-259. 3 Vertical rebar located outside of horizontal rebar rather than inside. Aux. Bldg.	Use As Is	TELEX 11-5-76 11-8-76	B. T. CHEEK B. T. Cheek
565	10-15-76	Dwg. C-274. As-built conditions do not conform to sect. E of dwg. Aux. Bldg. 614'0" @ 5.3 & 7.8	Use as is Repair		
566	10-15-76	Dwgs. C-214, 202, & C-276. 10-#5 rebar omitted at El. 634'6" and 1-#5 rebar omitted at El. 534'6" Aux.			
567	10-15-76	Dwgs. C-210, C-219, C-140, & C-282. Rebar omitted. Aux. Bldg. Elev. 568'0"			
568	10-15-76	Dwgs C-213, C-140, C-282, C-284. Rebar omitted. Aux Bldg, 614'0", G, J, Hk, K line walls.			
569	10-15-76	Dwgs C-213, C-140, C-282, C-284. Rebar omitted. Aux Bldg, Elev. 614'0". 5.6 line, wall 32.			
570	10-19-76	Dwg. C-429. South wall of Cont. 2 feedwater chamber has 5" to 5 3/4" clear cover.	Use as is	11-19-76	D. L. Osborn
571	10-19-76	Dwg. -C-658 & 415. Type 48 embed notched by mistake and E-2 embeds notched too deep.	Rework	12-3-76	R. Valentine
572	10-19-76	C-208. Fineness of Flyash too low. Specific surface varied from average more than 15%			



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573	10-19-76	NDE Procedure PT-SR-1, 2. Liquid penetrant Cert. Records are not up to Rev. 1 requirements	Use as is.	Telex. 10-27-76 11-9-76	A. L. Boulden A. L. Boulden
574	10-20-76	M-106AC. Hanger rod delivered to jobsite not threaded. No G-321-D for Shop Order E-ME-242.	Doc. Use as is.		
575	10-20-76	M-104A. Pipe spool SN 106722-601A-276 delivered to the jobsite without G-321-D and Quality Verif. Doc.	Documentation		
576	10-22-76	C-208. Concrete User Tests #31 & #32, ice not tested.	Use As Is	12-23-76	B. T. Cheek
577	10-22-76	C-231. Unit #2 Exterior Wall, Rebar omitted.	Use as is	11-19-76	D. L. Osborn
578	10-26-76	C-211. Structural Backfill material not tested on delivery date.			
579	10-26-76	M-204. Spray Header pipe spools 2GCB-001-S613-1 & 2GCB-008-S613-1 came in contact with sheathing.	Rework Use as is	11/16/76	F. Mahala
580	10-28-76	C-231. Curing temperature dropped below 50° for 3 hours on Pour A(614)h-2 on 10-22-76	Use as is	12-13-76	A. M. Torres
581	10-29-76	C-231. Curing temperature dropped below 50° for an indeterminate amount of time on Pour A(614)h-3	Use as is	12-13-76	A. M. Torres
582	10-29-76	C-231. Curing temperature dropped below 50° for an indeterminate amount of time on Pour A(629.5)b'	Use as is	12-13-76	A. M. Torres
583	10-29-76	E-21. Cable received without required test results	Doc.		
584	11-2-76	C-231. Curing temperature for grout fell below manufacturer's recommendation	No nonconformance	11-8-76	B. T. Cheek
585	11-2-76	M-51. Gouge in nozzles #3 & #4, 2E-73B			
586	11-4-76	M-204. Arc strikes on 2-GCB-006-7 RB Spray Piping	Std. Repair	12-6-76	C. Groat
587	11-4-76	C-233A. Welding and documentation, F-13637 embeds	Doc. Reject	12-2-76	R. A. Moray
588	11-4-76	M-125C. Broken handle to the manual operator, item 17.6, 18HCB-GT-2MO-1310A-RL	Rework		
589	11-4-76	C-231. Curing temperature of grout, Aux. Bldg, Elev. 584'0", C, D, & F lines	No nonconformance	11-8-76	B. T. Cheek
590	11-8-76	C-208. Intervals between cylinder sets taken exceeded 100 yards. CC(683.25)a'			
591	11-8-76	C-230. Slump and temperature tests exceeded 35 yard interval. CC(602.3)a'			



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592	11-8-76	C-230. Air content for Pour C(619.5)a too high.			
593	11-9-76	C-38. G-321-D and accompanying documentation not traceable to each other or the shear studs.	Doc.		
594	11-9-76	Dwg. C-195. Over 10% of the rebar were cut U.N.O. when drilling anchor bolt holes at the CCW pump pads			
595	11-10-76	Dwg. 617 Sh. 8. Cover pass of Fw 14C1 exceeded specified tolerance. Weld varied 1 1/8" to 1 3/8"	Use as is	12-29-76	P. W. Ratter
596	11-10-76	M-106A. Details of bolt and nut materials sizes and clamp bolt hole sizes are not provided w/hangers	No Nonconformance	12-6-76	C. Groat
597	11-11-76	M-120. 10" HBB-GT-2MO-1760-RVE valve radiographs torn, bent, holes worn through.			
598	11-11-76	M510 sht. 7. FW #10. 10" FCB Class pipe welded with incorrect electrode	Use as is	12-29-76	P. W. Ratter
599	11-12-76	C-231. Aux Bldg Elevator shaft out of dimensions per Dwg 7220-C-202 Rev. 6.			
600	11-12-76	M-92. Hole for mounting bolt drilled and reamed off from perpendicular. Unit #2.	Rework	11-29-76	R. J. Mesey
601	11-12-76	M-92. Three bolts failed during installation, appear to be under-cut at transition. Unit #2.	Reject		
602	11-15-76	C-230. Temp. of concrete at placement too high. Pour A(646)a'	Use as is	12-13-76	S. Gelnett
603	11-16-76	M-104A. NDE not performed on weld "D", spool OHCC-153-S506-2-1.	Rework	11-18-76	P. M. Pitts
604	11-16-76	M-326. Hanger 4-2HCB-21-H1 installed omitting 1/4" fillet weld. Aux. Bldg. El. 580'0"			
605	11-16-76	Dwg. C-219. Revision 8 of dwg. C-219 omits 4-#8 bars and 6-#5 caps. Aux. Bldg. El. 584' @ 'G' & 6.6			
606	11-18-76	Dwg. C-202. 24" spacing for #5 Rebar rather than 12" called out by Dwg. Aux. Bldg. El. 624'0"	Repair	11-24-76	R. K. Siple
607	11-22-76	M-106AC. 3/16" made completely around the flanges and web of the item 8 to item 9 joint. 2-617-6-1			
608	11-22-76	C-38. G-321-D not included in documentation for items on Ingalls Steel Packing List V2182.	Doc.		
609	11-24-76	Dwg. C-279. Dwg. called for installation of 6 #11 Bars. 5 #11 Bars were installed. Aux. Bldg. El. 634'-6"	Use As Is	Telex 11-30-76	M. E. Foote
610	11-29-76	C-233A. F-16574 Rail Clamps, phosphorus content does not meet ASTM A-36.	No Nonconformance	12-20-76	H. Boleen



LOG OF NONCONFORMANCE REPORTS

12-1-76

PROJECT NAME ¹ Midland

JOB NO. ¹ 7220

PAGE ⁸ 50

2 NCR NO.	3 DATE	4 NONCONFORMANCE DESCRIPTION / REMARKS	5 DISPO.	6 DATE NCR CLOSED	7 CLOSED BY
611	12-1-76	M-115A. No cold springing instructions or Project Engineering authorization provided for 2-GCB-004-S-6B-1	No Nonconformance	12-7-76	F. Mahala
612	12-1-76	M-120AC. Defects discovered on valve weld prep and 1 3/8" below land of inside bevel 16" HBCCKZ 3N68			
613	12-2-76	C-208. Concrete cylinders' initial curing temperature lower than allowed by ASTM C-31 & C-39.			
614	12-2-76	C-230. CC(693.42)a' Concrete temperature, air content, and slump.			
615	12-3-76	C-208. Cylinders removed from moldsfell below minimum temperature requirement of 73.4+ 3F			
616	12-3-76	Dwg. C-248. North and South embeds are 1-5/8" and 3/8" from correct locations. Fuel Tilt Pit El. 633'3"	Use as is		
617	12-3-76	M-104A. Spool IHCB-16-S612-3-3 delivered with an unapproved submittal			
618	12-1-76	E-20. Documentation not received with weld neck flanges.	Doc.		
619	12-6-76	C-230. CC(640)a', Concrete temperature and slump out of limits for three batches.			
620	12-7-76	C-231. Curing temperature dropped below 50° for 22 hours. A(634.5)b			
621	12-7-76	C-304. Shear connectors fabricated contrary to the requirements of of AWS D11-72, Sec. 3.	Rework	12-15-76	R. Valentine
622	12-7-76	C-233. West end of WF 24x94 #1311N has a crack in the web @ re-entrant corner. Aux. Bldg. El. 584'	Std. Repair		
623	12-7-76	C-230. Concrete slump of 9" for one yd. Pour# C(593.5)c and C(607)b			
624	12-9-76	M-104A. Unclear Documentation received for gaskets. WR gaskets rec. instead of R3, R4, or CG gaskets.			
625	12-8-76	M-104A. Unclear Documentation received for gaskets.			
626	12-9-76	Spiraltallic style 913 gaskets rec. instead of R3,R4,CG. C-230. Flyash content of 8 c.y. of concrete has higher than allowable limit. Pour # Y(590)a			
627	12-9-76	Beams have copes that are cut past the point of tangency. C-38AC	Std. Repair		
628	12-9-76	C-38. Re-entrant corners cut past the point of tangency.			
629	12-15-76	Dwg. C-326. 1-#10 rebar installed instead of a #11 left side of Equip. Hatch.Cont.#1 El. 642'7"	Use As Is	Telex 12-2-76	A. Lamach



LOG OF NONCONFORMANCE REPORTS

PROJECT NAME ¹ Midland JOB NO. ¹ 7220 PAGE ⁸ 51

2 NCR NO.	3 DATE	4 NONCONFORMANCE DESCRIPTION / REMARKS	5 DISPO.	6 DATE NCR CLOSED	7 CLOSED BY
630	12-15-76	C-231. Curing of concrete exposed to outside environment on Pour A(634.5)c			
631	12-15-76	C-233A. PO-14441 Quality verification documentation not received for 17 embeds.	Doc.		
632	12-15-76	C-233A. PO-14061 Quality verification documentation not received for 4 embeds.	Doc.		
633	12-15-76	M-104A. Lamons WR Gaskets sent instead of R3, R4, and CG Gaskets. Indeterminate doc. requirements			
634	12-16-76	M-1.4. Packaging and Crating inadequate; damaged CDRM Subassemblies.			
635	12-16-76	C-233A. Pedestal welds on two . . . embeds have insufficient 5/8" fillets. PO-13657			
636	12-17-76	M-104A. Linear indications on Spool Piece 1-HCB-2-610-3-2. Spool also out of round by 9/16".			
637	12-17-76	C-39. Rebar received was not fabricated to correct Drawing. C-39-Y4-4	No Nonconformance	12-29-76	J. R. Slifer
638	12-20-76	M-104A-AC. Pipe Spools delivered to the jobsite with no desiccant bags inside the spools			
639	12-20-76	C-38. G-321-D's rec'd for studs and steel rails not traceable to accompanying doc. or material.			
640	12-21-76	C-208. Concrete cylinders' curing temperature out of required ranges.			
641	12-23-76	M-104A. Spool 2EBB-14-S634-1-7 received without desiccant, and with contaminates.			
642	12-23-76	C-208. Slump test exceeded 35cy interval, Pour # CC(673.1)b'			
643	12-23-76	M-106. Pipe clamp holes drilled off center.			
644	12-23-76	C-306. Two rebar cut upon installation of hanger 10-1FCB-34-H2			
645	12-27-76	C-230. Flyash content low for one Batch Ticket, Pour SWI(609)a'			
646	12-27-76	C-231. Curing temperature of South portions of walls dropped to 33° for 4 hours. Aux. Bldg. walls 19E & 19W			
647	12-27-76	C-231. Curing temperature of Leibheer Crane Hole dropped below 50°			
648	12-29-76	M-106AC. Hanger fabricated to Level 9 sketch - Carbonsteel plate fabricated to incorrect dimen.			

BECHTEL

NONCONFORMANCE REPORT

2. DRAWING/PART NO. FPG-3	REV. 2	7. PROJECT NO. 7220	12. REPORTED BY <i>John C. Williams</i>	DATE 12/12/74
3. ITEM DESCRIPTION Semi-Rigid Sheathing	8. ITEM LOCATION B-Laydown Area	9. STARTUP SYSTEM NO. N/A	13. VALIDATED BY <i>A. Sen</i>	DATE 12/13/74
4. SERIAL NUMBER N/A	10. QC FIELD INSPECTION PLAN NO. N/A	15. REPLACEMENT PART NO. N/A	16. REPLACEMENT SERIAL NO. N/A	17. SOURCE Construction
5. PURCHASE ORDER NO. N/A	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	18. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR		

1. PAGE 1 OF 1	14. NCR NO. 250			
25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	USE AS IS	DOC.
PROJECT FIELD ENGINEER <i>J. C. Williams</i>			DATE 1-13-75	
PROJECT ENGINEER <i>A. Sen</i>			DATE 1-29-75	
PROJECT FIELD QC ENGINEER			DATE	
AUTHORIZED INSPECTOR			DATE	

19. NONCONFORMING CONDITION: Procedure FPG-3, Rev. 2, Paragraph 8.3.2(4) states in part, "Level D items may be stored, outdoors in an area marked, and designated for storage, which is well drained, preferably gravel covered or paved, and located a reasonable distance from the actual construction area and traffic so that possibility of damage from construction equipment is minimized". Contrary to the above, ~~one~~ ^{two} bundles of semi-rigid sheathing has been damaged by construction equipment. Nonconformance noted during field inspection. "Q" No. is 1.107. *2 kits applied 12-10-75*

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Reject the nonconforming sections of the sheathing mentioned above which ~~was~~ ^{were} damaged on the end. The damaged ends will be cut off prior to installation and discarded. Implementation to be accomplished prior to installation. *sent 1/11/75*

21. FIELD DISPOSITION RESULTS:
BEBC-1294 states tender sheathing 12-7007-Q. 2 part of removed. 12-10-76

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. ACCEPTANCE *12-10-76*

QC ENGINEER _____ DATE _____

AUTHORIZED INSPECTOR _____ DATE _____

RE-TEL

in telegram

RYDEX

NONCONFORMANCE REPORT

1. PAGE 1 OF 3	14. NCR NO. 412
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	USE AS IS
DOC.	
PROJECT FIELD ENGINEER: <i>[Signature]</i> DATE: 7-1-76 PROJECT ENGINEER: <i>[Signature]</i> DATE: 7-1-76 PROJECT QC ENGINEER: <i>[Signature]</i> DATE: 7-12-76 QUANTITY INSPECTOR: <i>[Signature]</i> DATE: 12-2-76	

2. DRAWING/PART NO. 7220-C-230	Spec.	REV. 6	7. PROJECT NO. 7220	12. REPORTED BY <i>[Signature]</i>	DATE 4-26-76
3. ITEM DESCRIPTION Flyash	8. ITEM LOCATION Batch Plant	13. VALIDATED BY <i>[Signature]</i>	DATE 4-26-76	15. REPLACEMENT PART NO. N/A	REV.
4. SERIAL NUMBER N/A	9. STARTUP SYSTEM NO. N/A	16. REPLACEMENT SERIAL NO. N/A	17. SOURCE Subcontractor		
5. PURCHASE ORDER NO. N/A	10. QC FIELD INSPECTION PLAN NO. N/A	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
6. CONTRACTOR/LOCATION Champion Inc., Midland, Michigan					

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

19. NONCONFORMING CONDITION: Section 7.4.1 of Specification 7220-C-230, Rev. 6 states that pozzolans shall conform to ASTM C-618-72 in table 2 requires that the ^{FINENESS} ~~fineness~~ value be not less than 6500 cm²/cm³. Contrary to the above, ^{FINENESS} ~~fineness~~ of flyash sampled on 4-15-76 was reported as 5654 cm²/cm³. Nonconformance noted during routine users testing of materials. "Q" list numbers are 1.205 and 1.205. No hold tags applied.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Use as is; for the time period 4/15/76 to 4/21/76 a total of 1237 c.y. of concrete was batched and of this total 313 c.y. was "0" listed. Seven day cylinder tests indicate no abnormal strength or strength development, and no unusual air content problems were encountered during this period. The flyash remaining in the batch plant silo has been rejected and removed from site. The supplier, Michigan Ash Sales, has

22. ENGINEERING DISPOSITION
- 1) Concrete placement C(635)c' will not be dispositioned in this NCR, because it is not 0-listed, see Drawing C-428.
 - 2) Concrete placements A(646.75)a' and CC(593.5)F have not been detrimentally affected by the subject pozzolan, and may be "used as is," based on the following:

(continued on attached sheet)

24. IS DESIGN CHANGE REQUIRED <input checked="" 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>[Signature]</i> DATE: 7/12/76
DRAWING _____ REV. _____ DCN _____	REMARKS _____	QC ENGINEER _____ DATE _____
SPEC _____ REV. _____ ADD _____		AUTHORIZED INSPECTOR _____ DATE _____

NONCONFORMANCE REPORT (CONT'D)

Block 22:

- a) Concrete containing pozzolan with a minimum fineness of 5654 cm²/cm³ will have less total fineness (cement plus pozzolan) than concrete containing pozzolan with a minimum fineness of 6500 cm²/cm³, and consequently, will tend to gain early strength slower. However, a review of the 7 and 28 day concrete cylinder breaks show that they have fallen within acceptable limits.
- b) A decrease in pozzolan fineness will also increase the amount of free water in the concrete, thereby affecting the amount of drying shrinkage. However, the amount of free water is checked by the slump tests, which were all acceptable. Because the slump values are acceptable, drying shrinkage will not be adversely affected.

The following is provided for information:

Placement	Test Results	Slump at	
		28 day	Slump at
A(646.75)a'	4505, 4310, 4425	4", 4", 5-1/2"	Pump Discharge 3-1/4", --, --
CC(593.5)F	4920	3-1/4"	--

Robert L. Hayden 6-30-76
ME 6/30/76
J. R. Hayden - 6-30-76

SECRET

NONCONFORMANCE REPORT (CONT'D)

Block 20:

been notified of the failure and a new load of flyash received on site 4/28/76. Samples were obtained from the shipment and acceptable test results will be received by the field prior to use. Listed below are the O-list placements, cylinder test results and batch plant flyash inventory for the period 4/14/76 thru 4/28/76.

Date	Placement	Quantity	Mix	Test Result(7 cyl)*
4/16/76	G(635)c'	17 c.y.	E-2	3660
4/16/76	A(646.75)a'	292 c.y.	D-1	3510; 3030; 3185
4/20/76	CC(593.5)F	4 c.y.	D-1	3860

* Average of 2 cyl.

Date	Tons on Site	Tons Received
4/14/76	52.99	0
4/15/76	101.29	48.30
4/16/76	86.69	0
4/20/76	54.97	0
4/21/76	54.33	0

Sampled; notified of failure 4/23/76

Removed from site 4/28/76

J. L. ... 4-23-76

White Copy - Originator
 Canary Copy - Field Engineer
 Pink Copy - PGAE
 Goldenrod Copy - QC

TELETYPE

BEMC-1361

Bechtel Associates Professional Corp.

Inter-office Memorandum

To: J. F. Newgen
Subject: Midland Plant Units 1 & 2
Job 7220
Nonconformance Report
No. 412
Copies to: File: 0274, 0545, C-0405

Date: December 21, 1976

From: R. L. Conley
Of: Engineering

At: Ann Arbor

RECEIVED
DEC 21 1976
BECHTEL POWER CO
JOB 7220

- References: 1) BCBE-1075 dated 12-6-76
2) J. Corley letter to J. F. Newgen dated 11-17-76 (169FQA76)

In response to Reference 1 and after review of Reference 2, Project Engineering's Disposition in Block 23 of NCR No. 412 is hereby revised to read:

Concrete placements A(646.75)a', CC(593.5)P and C(635)c' have not been detrimentally affected by the subject pozzolan, and may be "used as is" based on the following:

- a) Concrete containing pozzolan with a minimum fineness of $5654 \text{ cm}^2/\text{cm}^3$ will have less total fineness (cement plus pozzolan) than concrete containing pozzolan with a minimum fineness of $6500 \text{ cm}^2/\text{cm}^3$, and consequently, will tend to gain early strength slower. However, a review of the 7, 28 and 90 day concrete cylinder breaks show that they have fallen within acceptable limits. In addition to the foregoing, for pour C(635)c', the Field chose to use an E-2, 6000 psi mix in lieu of the required C-2, 4000 psi mix and therefore the strength of the in-place concrete exceeds design strength requirements.
- b) A decrease in pozzolan fineness will also increase the amount of free water in the concrete, thereby affecting the amount of drying shrinkage. However, the amount of free water is checked by the slump tests which were all acceptable. Because the slump values are acceptable, drying shrinkage will not be adversely affected.

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Bechtel Associates Professional Corporation

ICM to J. F. Newgen
BERC-13613
Page 2

The following is provided for information:

<u>Placement No.</u>	<u>90 day test results</u>	<u>Slump at batch plant</u>	<u>Slump at pump discharge</u>
A(646.75)a'	6210 psi 5930 " 6510 "	4" 4" 3 1/2"	3 1/4" — —
CC(593.5)F	6615 psi	3 1/4"	—
C(635)c'	5860 psi	4"	2 1/4"

RJM/eg

J. E. Heide
R. I. Castleberry





NONCONFORMANCE REPORT

2. DRAWING/PART NO. (As Built) 7220-M-616 sh-7		REV. 2	7. PROJECT NO. 7220	12. REPORTED BY P. M. Pulte	DATE 8-21-76	1. PAGE 1 OF 2	14. NCR NO. 448			
3. ITEM DESCRIPTION Shop Fabricated Carbon Steel Pipe Spool		8. ITEM LOCATION See Block 19	9. STARTUP SYSTEM NO. N/A	13. VALIDATED BY J. M. Conroy	DATE 8-21-76	25. DISPOSITION CONCURRENCE				
4. SERIAL NUMBER 1HBC-133-S616-7-6		10. QC FIELD INSPECTION PLAN NO. N/A	11. ASME CODE ITEM <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	15. REPLACEMENT PART NO. N/A	REV.	REWORK	REJECT	REPAIR	USE AS IS	DOC.
5. PURCHASE ORDER NO. 7220-M-104AC		16. REPLACEMENT SERIAL NO. N/A	17. SOURCE Supplier			PROJECT FIELD ENGINEER J. M. Conroy		DATE 7-18-76		
6. CONTRACTOR/LOCATION JTT Grinnell, Kernersville, NC						PROJECT ENGINEER J. M. Conroy		DATE 7-19-76		
18. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR						PROJECT FIELD QC ENGINEER J. M. Conroy		DATE 7/21/76		
						AUTHORIZE INSPECTOR		DATE		

19. NONCONFORMING CONDITION: Specification 7220-M-201, referenced by PO 7220-M-104AC, states in part (Paragraph 9.1) "The seller shall establish and maintain a system for the control of quality during fabrication and shipping which will assure that all materials including purchased and subcontracted items, conform to these specifications. This system shall be organized in such a manner that it will be possible to relate every component of the finished spool to its fabrication history."

Cont. pg 2

20. <input checked="" type="checkbox"/> FIELD DISPOSITION <input type="checkbox"/> FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING	21. FIELD DISPOSITION RESULTS:
Material Supervisor to obtain materials record from vendor identifying spool 1HBC-133-S616-7-6.	MATERIALS RECORD RECEIVED AS PER FIELD DISPOSITION.
<i>Q. Edwards 7-15-76</i> <i>J. M. Pulte 7-15-76</i>	<i>M. H. Conroy 12/21/76</i>

22. ENGINEERING DISPOSITION	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 _____	<i>J. M. Conroy 12/21/76</i>
SPEC _____ REV. _____ ADD _____		<i>J. M. Conroy 12/21/76</i>

10098-1

- White Copy - Originator
- Canary Copy - Field Engineer
- Pink Copy - PQAE
- Goldenrod Copy - QC

QC-G3-2

BECHTEL

NONCONFORMANCE REPORT (CONT'D)

PAGE 2 OF 2

14. NCR NO. 448

Cont. Block 19

Contrary to the above, the data furnished with pipe spool 1HBC-133-S616-7-6 (PO 7220-M-104AC, MR-69-50, Load Sheet #69) included a Materials Record listing Base and Filler Materials which was incorrectly identified with spool number 1-HBC-133-161-7-6.

Nonconformance noted during Documentation Review. Q List No. 4.164. One Hold tag applied.

Location: ~~LOCKED STORAGE AREA~~ QC Hold AREA locked PM Pitts 8-4-76
PM Pitts 6-22-76

- White Copy - Originator
- Canary Copy - Field Engineer
- Pink Copy - PQAE
- Goldenrod Copy - QC



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 501	20. Page 1 of 1	
2. Unit(s) Common	3. Drawing/Part No. C-202	Rev 5	4. Item Description Reinforcing Steel	5. Item Location Aux. Bldg. Elev. 614		
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/A REV	SER NO. N/A 9. Source Construction	10. Contractor/Supplier N/A		
11. Inspection Criteria <input checked="" type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. N/A NO. C-202	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: Section E on Drawing C-220 shows 4 #5 Bars in the Beam between The Hatch Opening and Stairwell. The 4 Dowels for these bars are not embedded in D Line, 3'-9" East of 6.6 Line, at Elev. 614 ^{1.0"} , and it is not possible to determine the need for these Dowels. 'Q' number is 1.203. <i>2001/1 MF</i> Hold tags applied.				24. Disposition/Concurrence REWORK <input type="checkbox"/> REJECT <input type="checkbox"/> REPAIR <input checked="" type="checkbox"/> USE AS IS <input type="checkbox"/> <i>J. Williams</i> 10-28-76 PROJECT FIELD ENGINEER DATE <i>J. Williams</i> 10-14-76 PROJECT ENGINEER DATE <i>J. Williams</i> 10-29-76 PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		
17. Reported By <i>J.M. Hamilton</i>		Date 8-23-76	18. Validated By <i>H.R. Foster</i>		Date 8-25-76	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)		25. Disposition Results REPAIR COMPLETED PER BLOCK # 23 <i>DE Plummer</i> 12-2-76		
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Route to Project Engineering for disposition. <i>Jo Lynn</i> 9/15/76				
23. Project Engineering Disposition Field to provide 4-#5 drilled dowels into D line wall for the beam bars. Embedment lengths & lap splices of bars shall be per note 3 of Dwg. C-211(Q), Rev.4. Manufacturer's instructions on grouting shall be followed. No safety implications are involved. <i>J. Plummer</i> 9/30/76		26. QC Acceptance <i>J. Plummer</i> 12-2-76 QC ENGINEER DATE AUTHORIZED INSPECTOR DATE				



Corrected Copy

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 511	20. Page 1 of 1	
2. Unit(s) Common	3. Drawing/Rev 7220-C-202 5	4. Item Description Reinforcing Steel		5. Item Location Aux. Bldg. 614'0" @ Const. Opening		
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/A REV	9. Source Construction	10. Contractor/Supplier N/A		
11. Inspection Criteria <input checked="" type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. N/A NO. 7220-C-202	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: Note #5 on drawing 7220-C-202, Rev. 5 states: "Slab dowel to match slab reinforcing unless noted otherwise." Contrary to the above, 1-#5 dowel at Elev. 614'0", 12'0" east of 6.2 line and 11'0" south of 'B' line, at the temporary construction opening is broken. 'Q' List No. 1.203. One Hold tag applied.				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS <input checked="" type="checkbox"/> STD J. P. [Signature] 9-20-76 PROJECT FIELD ENGINEER DATE C. R. [Signature] 9-30-76 PROJECT ENGINEER DATE [Signature] PROJECT CONSTR QC ENGINEER DATE [Signature] AUTHORIZED INSPECTOR DATE		
17. Reported By [Signature]	Date 9-1-76	18. Validated By [Signature]	Date 9-2-76	25. Disposition Results REPAIR COMPLETED PER BLOCK # 22 [Signature] 12-2-76		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)		22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Drill 1 1-5/8" (min.) diameter hole to a depth so that a splice length (2'7") can be maintained with existing broken dowel. Fill hole with non-shrink grout (embeco 636) and set #5 dowel. [Signature] 9-9-76 [Signature] 9/9/76				
23. Project Engineering Disposition						
26. QC Acceptance [Signature] 12-2-76 QC ENGINEER AUTHORIZED INSPECTOR						



NONCONFORMANCE REPORT

1774

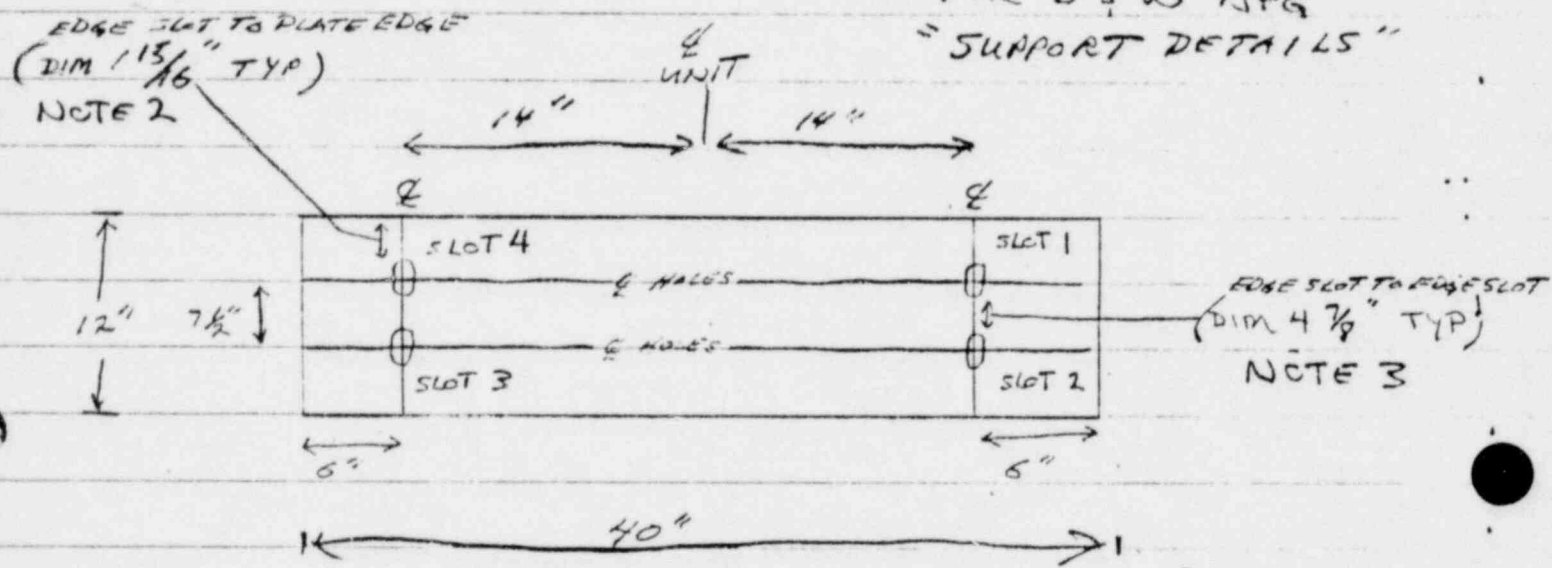
1. Project Name Midland Units 1 & 2		Job No. 7220		19. No. 517	20. Page 1 of 18	
2. Unit(s) 1 & 2	3. Drawing/Part No. M-2 1E-60 A, B & 2E-60 A, B	Rev 6	4. Item Description Decay Heat Removal Heat Exchangers	5. Item Location Elev. 584 Aux. Bldg.		
6. P.O. Or Spec No. ML.18	7. Serial No. 1E60A 1E60B 2E60A 2E60B	8. Replacement Part P/N REV N/A	9. Source Supplier	10. Contractor/Supplier B & W NPG (Atlas Ind. Mfg Co.)		
11. Inspection Criteria IR NO. GM-1-ML.18 <input checked="" type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER NO. Rev. 0		12. ASME AUTHORIZED INSPECTION REQUIRED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 4-5-76	13. SKETCH ATTACHED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC'G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input checked="" type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD	
16. Nonconforming Condition: Slotted Support Feet of Decay Heat Removal Heat Exchangers as furnished do not agree in configuration or dimensions with details shown on Vendor Drawing ML.18-1-4 (Atlas Mfg. D-3287-6 Rev. 6) resulting in mismatch with slotted Flourogold Slide Bearing Assemblies. See attached sketches for dimensional discrepancies with Dwg. ML.18-1-4, Reference Dwg. C-195 Rev. 3 for details of Flourogold Assemblies. Four QC Hold Tags applied.			24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS <input checked="" type="checkbox"/> REWORK			
17. Reported By P.M. Little JRS			Date 9-9-76	18. Validated By JRS H.W. Felt		
21. Routing <input type="checkbox"/> TO FIELD ENGINEERING <input checked="" type="checkbox"/> TO OTHERS (SPECIFY) B & W			25. Disposition Results REWORK ON THE SLOTS OF THE SUPPORTS FOR THE DECAY HEAT REMOVAL HEAT EXCHANGERS HAS BEEN COMPLETED SATISFACTORILY AND MEET THE REQUIREMENTS OF B&W DRAWING #02-520ND-06.			
22. <input type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING "The slots of the supports for the Decay Heat Coolers are to be reworked as necessary to meet the requirements of B&W drawing #02-520ND-06 (Atlas drawing #D3287-6, Rev. 6). The foundation slot holes are required to be in accordance with the drawing because of the expansion and contraction of the Cooler during heat-up and cool-down." (Ref: J. W. Marshall (B&W) to J. F. Newgen letter dated 11/30/76 attached.)			23. Project Engineering Disposition J.W. Marshall July 2, 12-2-76 M.H. Pooling 12/6/76			
			26. QC Acceptance Michael T. Pooling QC ENGINEER 12-6-76 DATE 12/6/76 AUTHORIZED INSPECTOR			

MEMORANDUM

TO: _____ LOCATION: NCR 517
 FROM: _____ DATE: 2 of 78

SUBJECT DELAY HEAT REMOVAL HEAT EXCHANGERS TYPICAL SLIDING PAD

VENDOR DWG D 3287-6
 JOB NO (7220-MI-18-1-4)
 FILE ATLAS IND MFG CO.
 FOR B & W WPG
 "SUPPORT DETAILS"



NOTE 1 TYPICAL SLOT HOLE 2 5/8" LONG X 1 5/16" WIDE WITH 13/32" RADIUS AT SLOT ENDS (SLOTS APPEAR TO BE TORCH CUT RATHER THAN REAMED.)

ACTUAL DIMENTIONS

EQPT. NO.	1E-60A	1E-60B	2E-60A	2E-60B
SLOT 1	NOTE 1 VS. 1 3/8 x 2 5/8	NOTE 1 VS. 1 3/16 x 2 3/4	NOTE 1 VS. 1 3/8 x 2 7/16	NOTE 1 VS. 1 3/8 x 2 3/8
SLOT 2	NOTE 1 VS. 1 3/8 x 2 1/2	NOTE 1 VS. 1 1/8 x 2 3/4	NOTE 1 VS. 1 3/8 x 2 1/2	NOTE 1 VS. 1 3/8 x 2 1/4
SLOT 3	NOTE 1 VS. 1 1/4 x 2 1/2	NOTE 1 VS. 1 1/4 x 2 3/4	NOTE 1 VS. 1 3/8 x 2 1/2	NOTE 1 VS. 1 3/8 x 2 1/4
SLOT 4	NOTE 1 VS. 1 5/16 x 2 1/2	NOTE 1 VS. 1 1/4 x 2 3/4	NOTE 1 VS. 1 3/8 x 2 5/8	NOTE 1 VS. 1 3/8 x 2 1/8



MEMORANDUM

TO _____ LOCATION _____ NCR 517
 FROM _____ DATE _____ 3 of 18
 SUBJECT _____ JOURNAL _____
 FILE _____

12/1/10

NOTE 2 1 15/16" DIM DESIGN

ACTUAL DIMENTIONS

EQPT NO.	1E-60A	1E-60B	2E-60A	2E-60B
SLOT 1	13/16"	1"	1 1/16"	7/8"
SLOT 2	1 1/8"	1"	1"	1 3/4"
SLOT 3	15/16"	7/8"	7/8"	1"
SLOT 4	1 1/8"	1"	1 1/16"	1 1/4"

NOTE 3 4 7/8 DIM DESIGN

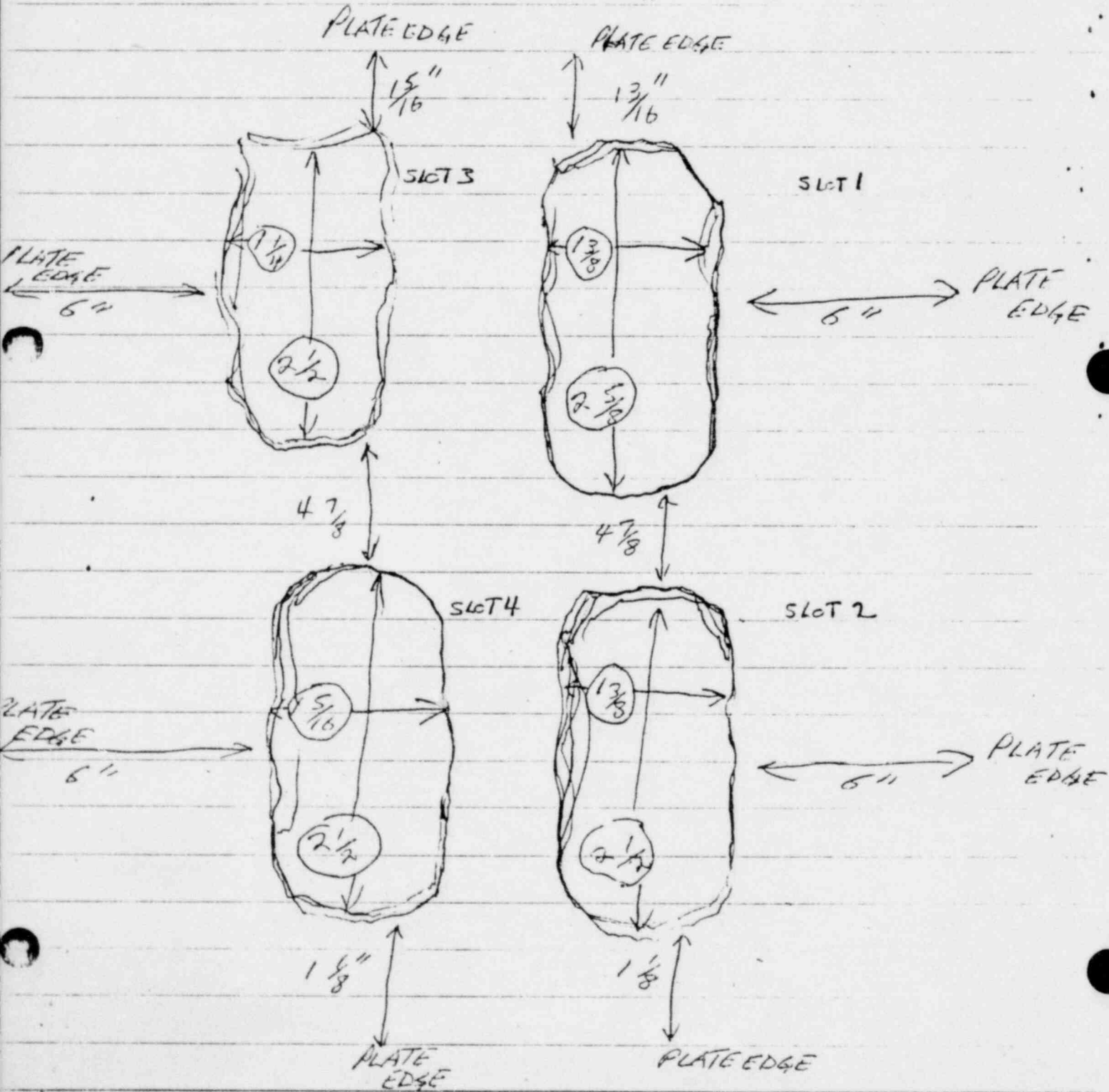
ACTUAL DIMENTIONS

EQPT NO.	1E-60B	2E-60B
SLOT 1	4 3/4"	5 1/8"
SLOT 2		
SLOT 3	4 3/4"	5 3/8"
SLOT 4		

MEMORANDUM

NCR 517
4 of 78 ^{RDS} 12/1/56

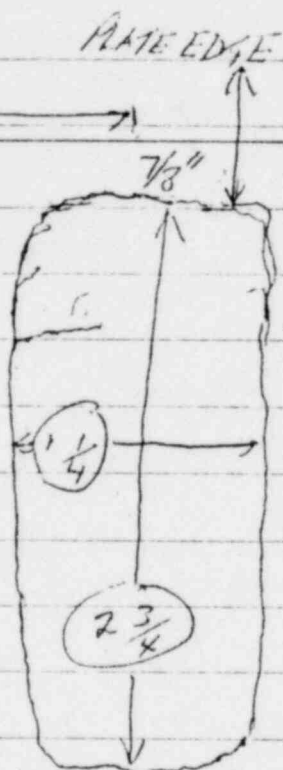
1E-60A ID TRACING



MEMORANDUM

TO _____ LOCATION NCR 517
FROM PLATE EDGE 6" DATE _____ 5 of 78
SUBJECT 1E-50 B JOB NO. _____

TD TRACKINGS



SLOT 3



SLOT 1



SLOT 4



SLOT 2



BECHTEL

N ↑

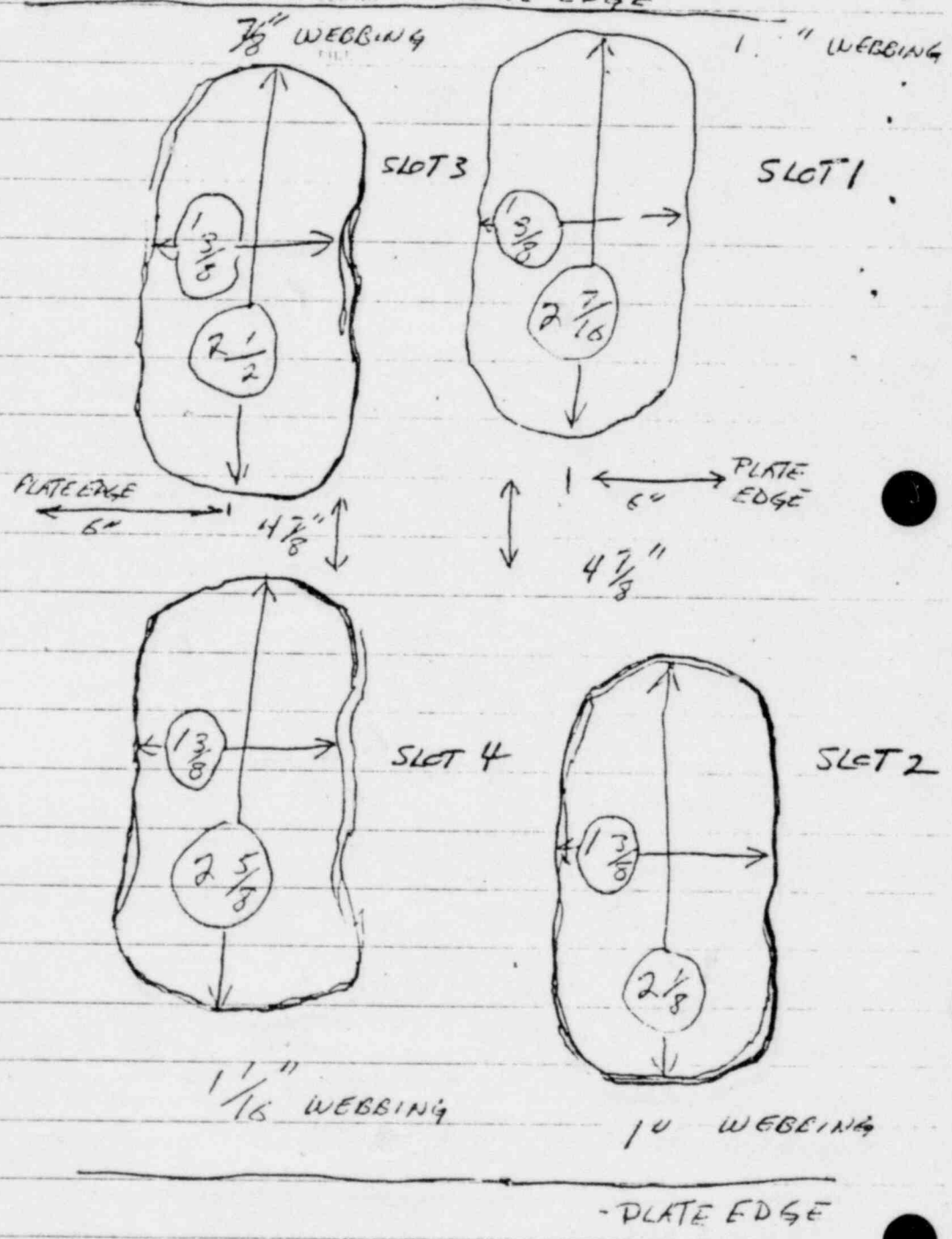
1E60A 1E60B 2E60B 2E 60A

MEMORANDUM

TO _____ LOCATION _____ NCR 517
FROM _____ DATE _____ 6 of 78 ^{EPS} 1/1/78

SUBJECT 2E-60A FOR NO. N PLATE EDGE

ID TRACINGS



MEMORANDUM

NCR 517

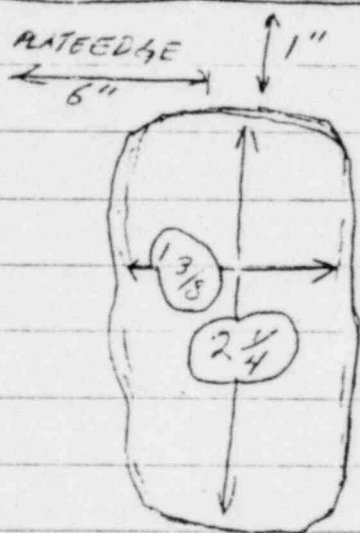
7 of 78

12/14/74

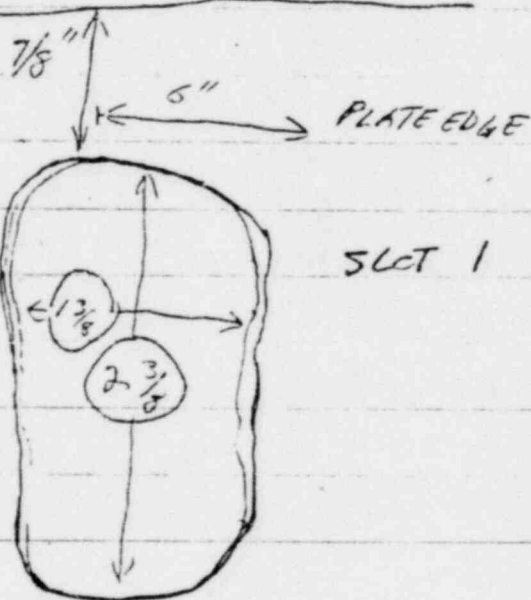
TO: _____ LOCATION: _____
FROM: _____ DATE: _____
SUBJECT: 2 E-60 B

ID TRACINGS

N



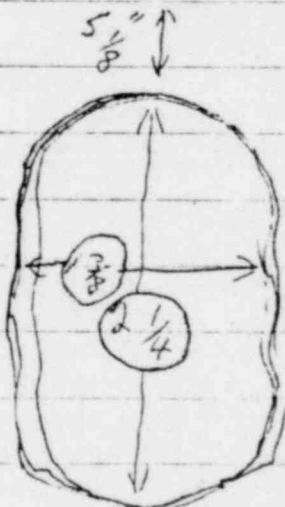
SLOT 3



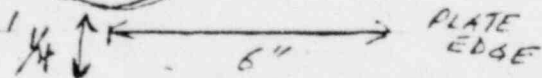
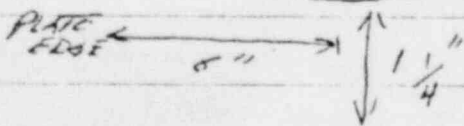
SLOT 1



SLOT 4



SLOT 2



Babcock & Wilcox

B&W Construction Company

Copley, Ohio 44321

Telephone: (216) 666-834

Bechtel Power Corporation
P. O. Box 2167
Midland, Michigan 48640

November 30, 1976

Attention Mr. J.F. Newgen

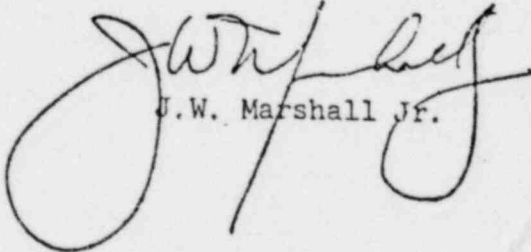
Re: Midland Project # 7220
Non-conformance Report # 517
Decay Heat Removal Heat
Exchangers

Dear Mr. Newgen:

The following resolution is recommended for disposition of Non-conformance Report # 517 covering the Decay Heat Removal Heat Exchangers:

"The slots of the supports for the Decay Heat Coolers are to be repaired as necessary to meet the requirements of B & W drawing # 02-5204ND-06 (Atlas drawing " D3287-6, Rev 6). The foundation slot holes are required to be in accordance with the drawing because of the expansion and contraction of the Cooler during heat-up and cool-down"

We will remain available for assistance throughout performance of this work.



J.W. Marshall Jr.

JM/jm

cc:

T.C. Cooke
A.W. DePatie
C.E. Mahaney
E. Carlson



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 528	20. Page 1 of 1								
2. Unit(s) 1	3. Drawing/Part No. 7220-M-610 sheet 5	Rev 4/F3	4. Item Description Spool Piece ^{9/20/76} 1GCB-25-S610-5-6 and 1GCB-25-S610-5-7		5. Item Location Aux. Bldg. Elev. 578								
6. P.O. Spec No. 7220-M-204	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A	SER NO. N/A	9. Source Construction	10. Contractor/Supplier N/A								
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. 7220-M-204 Rev. 4	12. ASME AUTHORIZED INSPECTION REQ'D <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD							
16. Nonconforming Condition: Specification 7220-M-204 Para. 6.5 states in part: "Wire brushing shall be done only with stainless steel brushes. Such brushes shall not have been previously used on other material." Contrary to the above, spool piece 1GCB-25-S610-5-6 and 1GCB-25-S610-5-7 at field weld 37 has evidence of rust on both spool pieces indicating improper equipment was used during final cleaning of the completed weld area.			24. Disposition Concurrence										
QC Hold Tags applied. 1			<table border="1"> <tr> <th>REWORK</th> <th>REJECT</th> <th>REPAIR</th> <th>USE AS IS</th> </tr> <tr> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> </tr> </table>			REWORK	REJECT	REPAIR	USE AS IS			<input checked="" type="checkbox"/>	
REWORK	REJECT	REPAIR	USE AS IS										
		<input checked="" type="checkbox"/>											
17. Reported By <i>James L. Baker</i> 9-17-76	Date	18. Validated By <i>M. Ronnelly</i> 9-17-76	Date	25. Disposition Results SURFACE RUST HAS BEEN SATISFACTORILY REMOVED FROM FW #37. WORK COMPLETE AS PER DISPOSITION. <i>M. F. Pooling</i> 12/17/76									
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)		22. <input type="checkbox"/> Field Engineering Disposition <input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING											
Specification 7220-M-204 does not contain instruction for removal of rust in the above case. Field Engineering recommends using a silicon carbide or aluminum oxide buffing wheel to remove surface rust from FW# 37.			<i>Q. Dougherty</i> 9-21-76 <i>W. Pulito</i> 9-21-76										
23. Project Engineering Disposition Surface rust resulting from improper cleaning does not affect the weld integrity. Engineering concurs with field disposition and recommends use of a Dressco aluminum oxide buffing wheel for rust removal.			<i>S. Vanich</i> 11-4-76										
<i>S. Vanich</i> 11/19/76			26. QC Acceptance <i>Michael J. Pooling</i> 12/17/76 QC ENGINEER <i>James L. Baker</i> 11/17/76 AUTHORIZED INSPECTOR DATE										

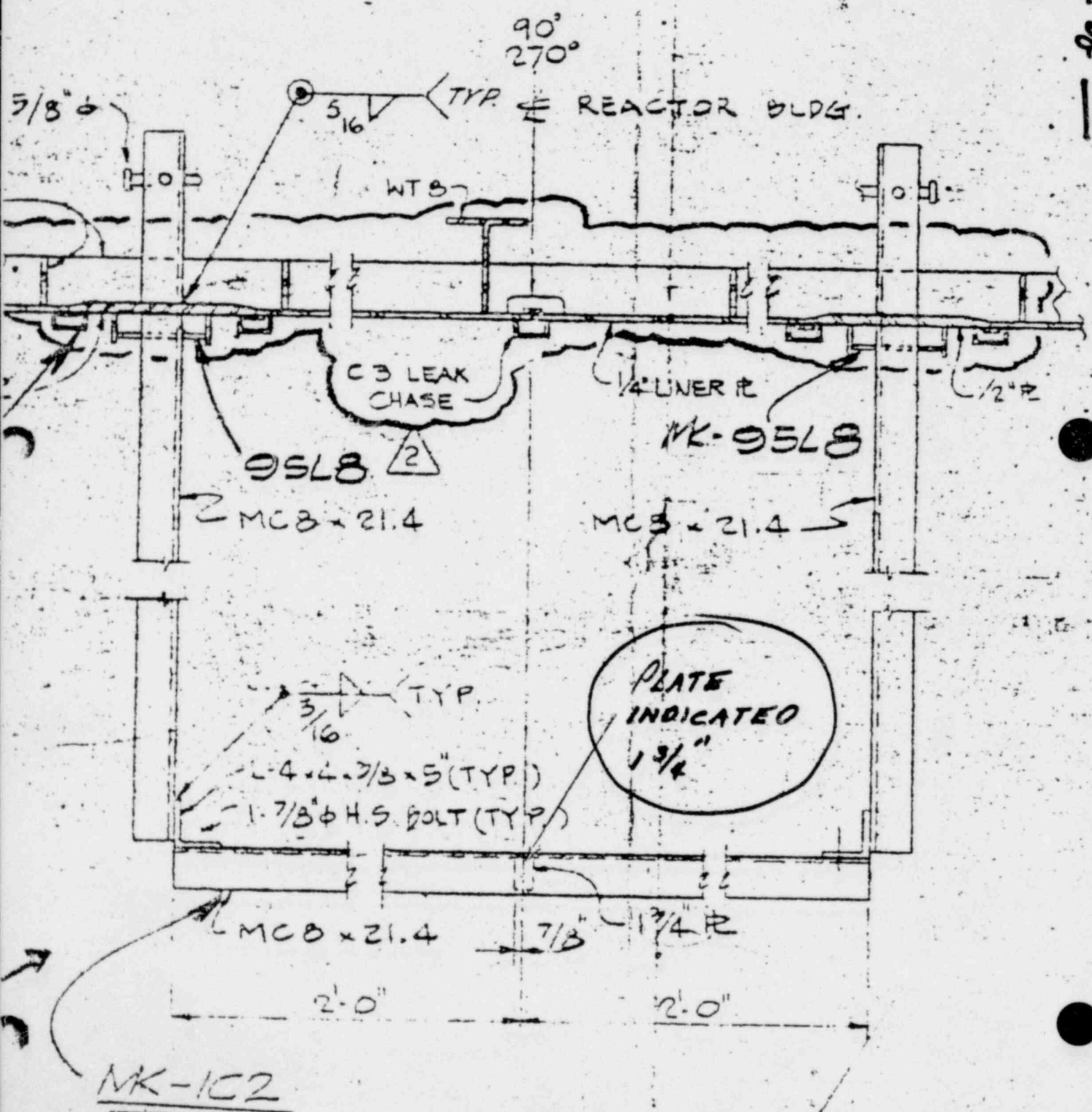


NONCONFORMANCE REPORT

PSM 9/22/76

1. Project Name Midland		Job No. 7220		19. No. 531	20. Page 1 of 43	
2. Unit(s) Unit 2	3. Drawing/Part No. F7220-C233A-IR-E18-5	Rev 5	4. Item Description 2" x 3" x 4" Plate	5. Item Location QC Hold Area ^{PSM} 11/2/76		
6. P.O. or Spec No. C-233A	7. Serial No. N/A	8. Replacement Part P/N _____ REV _____	9. Source Engineering	10. Contractor/Supplier Inland Ryerson UNIT 2 DOME HVA DUCK PSM 11-23/76		
11. Inspection Criteria <input checked="" type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. R-1.00-299 NO. See block 3	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO KIA 9/22/76	14. Discovered During <input checked="" type="checkbox"/> REC'G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD
16. Nonconforming Condition: Bechtel approved Vendor dwg. F7220-C233A-IR-E18-5 indicates two different dimensions for the same part. Section E indicates one plate 2" x 3" x 4" attached to part 1C2 while Section D indicates the plate to be 1 3/4". This plate was delivered to the jobsite 2" x 3" x 4". Due to the dwg. discrepancy the status of this plate is indeterminate. See Attachment A & B. Nonconformance noted during receipt inspection. "Q" number is 1.10. Hold pending final disposition. / hold tag(s) applied.				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS <i>M. Dalen</i> 10-12-76 PROJECT FIELD ENGINEER DATE <i>M. Dalen</i> 10-13-76 PROJECT ENGINEER DATE <i>M. Dalen</i> 10-13-76 PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		
17. Reported By <i>Robert S Monnow</i>	Date 9/21/76	18. Validated By <i>Will Foster</i>	Date 9-22-76	25. Disposition Results DCN # 6 TO DRAWING C-621 HAS BEEN RECEIVED WHICH SHOWS THE CORRECT INFORMATION. <i>Asst</i> 12/12/76 concur that the plate conforms with the corrected drawing. <i>Robert S Monnow</i> 12/15/76		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)		22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Material has been shipped and is acceptable. A DCN will be requested to delete the incorrect dimension. <i>C.F. Clark</i> 10-1-76 <i>John</i> 10/11/76 <i>John</i> 10/11/76				
23. Project Engineering Disposition Revision on page 4.		26. QC Acceptance <i>Robert S. Monnow</i> 12/15/76 QC ENGINEER DATE AUTHORIZED INSPECTOR DATE				

SECTION C AS NOTED
SCALE: 1" = 1'-0"
SECTION D AS NOTED



ELEVATION

REF. DWG C-1020-RE

531 - Pg 3 of 4
ATTACHMENT B

1/2 FT
MK# 2LC1

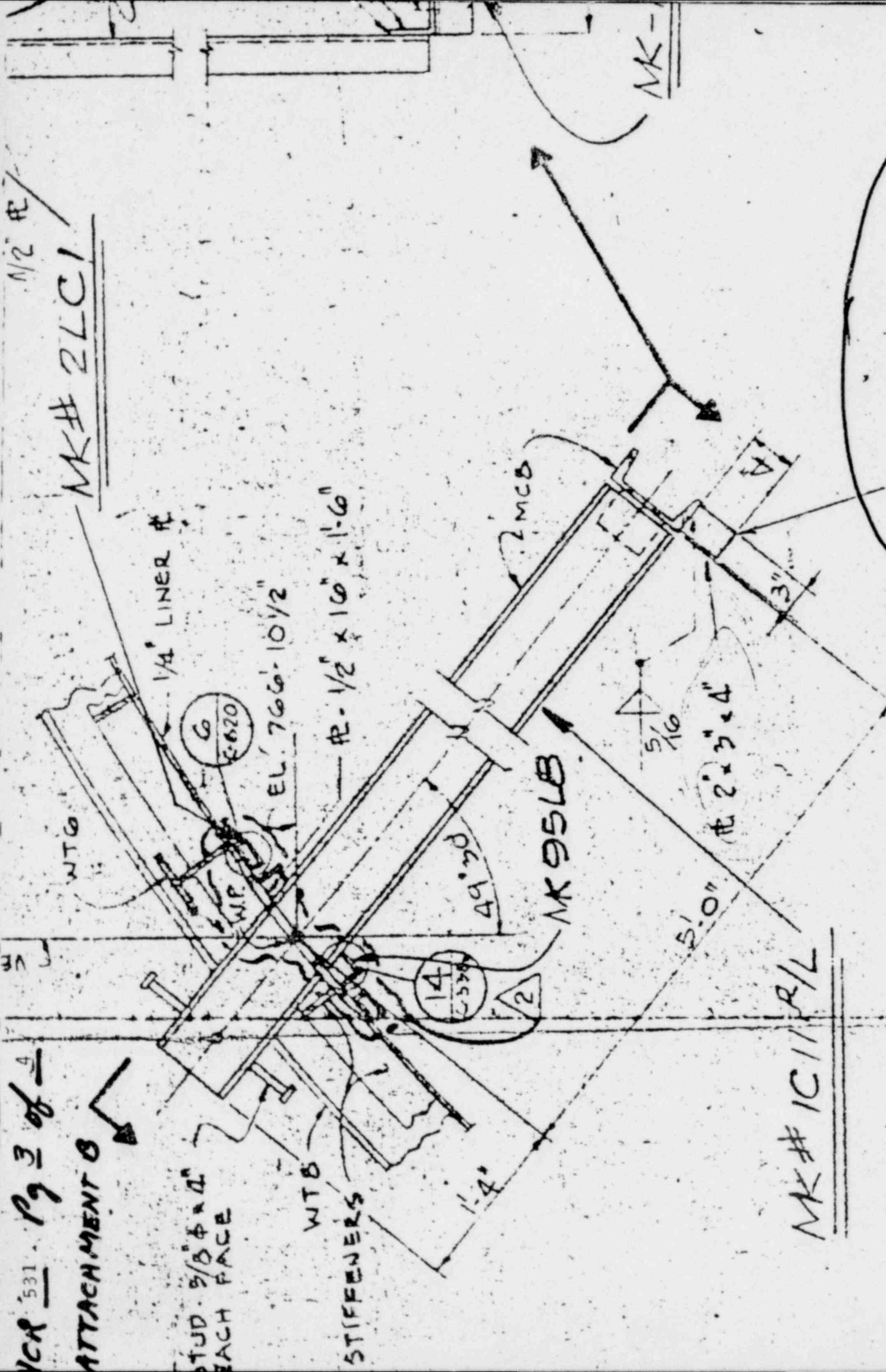


PLATE INDICATED
2" x 3" x 4"

SECTION E
SCALE: 1" = 1'-0"



NONCONFORMANCE REPORT (CONT'D)

Block 22 revised:

The above described conflict on a vendor drawing reflects a conflict on the Bechtel Design Drawing #C-621. The material was purchased and received to the more conservative of two conflicting requirements, and is therefore acceptable. The design drawing will be revised to show the correct information.

Approved D.F. Cloud 10/12/76
10/11/76
Julius Payne 10/12/76

Block 16 continued.

A conditional release is authorized to continue installation. Drawing to be revised and NCR cleared prior to dome erection.

PFE *[Signature]* 11.13.76
PFCCE *[Signature]* 11-23-76
LCAE *[Signature]* 11/23/76



NONCONFORMANCE REPORT

1. Project Name Midland Units 1 and 2		Job No. 7220		19. No. 538	20. Page 1 of 4	
2. Unit(s) 1	3. Drawing/Part No. 1-HBC-87-S619-7-2	M619 sh 7 Rev 7/5	4. Item Description Nuclear Class 3 Carbon Steel Pipe Fabrication		5. Item Location SASSE RD. B-7	
6. P.O. Or Spec No. 7220-M104-A-C	7. Serial No. N/A	8. Replacement Part P/N N/A REV	SER NO.	9. Source Supplier	10. Contractor/Supplier ITT Grinnell Kernersville, N.C.	
11. Inspection Criteria <input checked="" type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input checked="" type="checkbox"/> OTHER		IR NO. Procedure SS-KV19-8	12. ASME AUTHORIZED INSPECTION REQ'D <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC'G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: Specification 7220 M-201-Rev 7, para 9.1 states in part "The seller shall establish and maintain a system for the control of Quality during fabrication and shipping which will assure that all materials, including purchased and subcontracted items, conform to these specifications. This system shall be organized in such a manner that it will be possible to relate every component of the finished spool to its fabrication history." In compliance with the above requirements, ITT Grinnell specification SS-KV-19-8 section X, para. 72.B.h requires a weld/fitting				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS DOC		
17. Reported By PMP Pitts				Date 9-24-76	18. Validated By J.B. Kennedy	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)				25. Disposition Results REVISED SHOP TRAVELER RECEIVED AS PER FIELD ENGINEERING DISPOSITION.		
22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Route to Procurement Supervisor to obtain a revised shop traveler showing the correct spool mark number. George G. Butler 98. Pulito 10-1-76 10-1-76				M.H. 10/1/76		
23. Project Engineering Disposition						
26. QC Acceptance				12/21/76		
AUTHORIZED INSPECTOR				DATE		

NONCONFORMANCE REPORT (CONT'D)

matrix "Traveler N.4.1B" to be provided to the buyer for each pipe assembly.

Contrary to the above, the shop traveler form furnished N4.1B15 not identified with the correct spool number and does not agree with the Code Data Report or the spool Code Data Plate.

The spool number per the code data report is 1-HBC-87-S619-7-2

The spool number specified on the Shop Traveler is 1-HBC-82-S619-7-2

Q Number 4,111

1 Q C-Hod. Tag applied.

field.
Ref. to 74476

White Copy	-	Originator
Canary Copy	-	Field Engineer
Pink Copy	-	POAE
Goldenrod Copy	-	QC

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TRAVELER

JOB CONSIDERS POWER CONT. NO. 7021 REG. NO. MP- 51-24
 SYSTEM SEWER WATER CLASS N-3 SK. NO. MP- 51-24
 REG. NO. 1-112 SPEC. N-3-101M SS-KV-19

WELDING DATA

WELD IDENT.	END.	A	B	C	D	E	F	G
PROCEDURE NO.	QC	1-04-2-8	1-04-2-8	1-04-2-8	1-04-2-8	1-04-2-8	1-04-2-8	1-04-2-8
SPEC. SUPPLEMENT	QC	KV-14-8	KV-14-8	KV-14-8	KV-14-8	KV-14-8	KV-14-8	KV-14-8
INSPECT FOR	QC	4-21-76	4-21-76	6-16-76	4-26-76	4-21-76	4-21-76	6-4-76
MACH. & FIT UP	QC	-	-	-	-	-	-	-
PREHEAT	QC	-	-	-	-	-	-	-
WELDER IDENT.	TACK	S 5-225	S 5-225	S 5133	S 5-90	S 5-225	S 5225	S 5235
	ROOT	S C 227	S C 227	S C 409	S C 264	S C 464	-	S C 284
	INT	S C 454	S C 464	"	"	"	-	"
	DAL	S C 111	S C 111	S C 139	S C 141	S C 141	-	S C 141
WELD PROCESS	TACK	S TIG	S TIG	S TIG	S TIG	S TIG	S TIG	S TIG
	ROOT	S TIG	S TIG	S TIG	S TIG	S TIG	S TIG	S TIG
	INT	S MA	S MA	S MA	S MA	S MA	-	S MA
	DAL	S SA	S SA	S SA	S SA	S SA	-	S SA
WELD MATERIAL IDENT.	TACK	S Ww 57	S Ww 57	S Ww 65	S Ww 57	S Ww 57	S Ww 57	S Ww 65
	ROOT	S Ww 48	S Ww 49	S Ww 64	S Ww 48	S Ww 48	-	S Ww 64
	INT	S Ww 49	S Ww 49	S Ww 49	S Ww 49	S Ww 49	-	S Ww 67
	FINAL	S -	S -	S -	S -	S -	-	S -
INSERT/O-RING HEAT MAT'L NO.	QC	BK	BK	R.L.	R.L.	BK	BK	R.L.
Q.C. RIFICATION	QC	-	-	-	-	-	-	-
RADIO-GRAPHY	GRINNELL APP.	QC	-	-	-	-	-	-
	AUTH. INSR.	QC	-	-	-	-	-	-
	CUSTOMER APP.	-	-	-	-	-	-	-
LP. OR MAP TEST	ROOT	QC	-	-	-	-	-	-
	FINAL	QC	-	6-16-76	6-16-76	6-16-76	-	6-16-76

MATERIAL DATA

SK IDENTITY	REG. INDR	HEAT NO.	INTR	WTP	WELD MAT'L	DIA.	HEAT/LOT NO.
1 20" STD SA106 Gr B	3239	120500	P120	57	E705-2	1/8	065105
2 -DO-	3239	120500	P120	48	E7018 1 AM	3/32	31546/RS112100
3 -DO-	3239	120500	P120	49	E70EM12	1/8	402006/0652
4 20" STD 90% RICE	421	NRZC	P120	50	E705-2	3/32	065034
5 -DO-	421	MLTG	P120	15	E705-2	1/8	41259501
6 20" 150" R/FW Fly	421	F05U	15	14	E7018 1 AM	3/32	15411/262 WMC

STRESS CHART NO. N/A CLEAN 260 PAINTING 148 READY FOR SHIPMENT 6/3/76 CHANGES

FINAL APPROVAL FT DATE 6/30/76 CUSTOMER APPROVAL _____ DATE _____

* APPLICABLE REVISION NUMBER SHALL BE SHOWN.

FORM NPP-1 DATA REPORT FOR FABRICATED NUCLEAR PIPING* Sheet 1 of 4
(As Required by the Provisions of the ASME Code Rules)

1. Fabricated by ITT Grinnell Industrial Piping, Inc. Order No. 7021
(Name and Address of Fabricator) Kernersville, N. C.

2. Fabricated for Bechtel Corporation, Ann Arbor, Michigan Order No. 7220-M-104A-NC
(Name and Address)

3. Owner Consumers Power Co. 4. Location of Plant Midland, Michigan

5. Piping System Identification SERVICE WATER
(Brief description of intended use, main coolant etc.)

(a) Drawing No. MP-21-34 Prepared by ITT Grinnell Industrial Piping, Inc.
(b) National Board No. N/A

6. Design Conditions of Piping N/A psi N/A °F
(Pressure) (Temp.)

7. The material, design, construction, and workmanship complies with ASME Code Section III, Class N-3
Edition 1971, Addenda Date Summer 1973, Case No. N/A

Remarks: Manufacturers' Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of this report: N/A
(Name of Part - Item number, Manufacturer's name, and identifying stamp)

Supplemental Sheets --- 344 ---Drawing ---
---Bill (s) of Material ---

8. Shop Hydrostatic Test Field psi. 600
CT 11/1/76

9. Description of piping inspected Piece Mark No. 1 HBC-87-5619-7-2
(include - mark no. - material spec. - nom. pipe size - schedule or thickness - length
See Attached Sheets
- fittings - flanges, etc.)

CERTIFICATION OF DESIGN (WHEN APPLICABLE)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A (1) Prof. Eng. State N/A Reg. No. N/A

Stress analysis report certified by N/A (1) Prof. Eng. State N/A Reg. No. N/A

(1) signature not required, list name only.

We certify that the statements made in this report are correct and that this fabrication conforms to the rules of construction of the ASME Code Section III. ITT Grinnell Industrial Piping, Inc.

Date 6-30-76 Signed James G. [Signature] By Fabricator

Certificate of Authorization Expires 8-16-76 Certificate of Authorization No. N-625

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of N.C. and employed by N.C. of Hartford, CT. have inspected the piping described in this Data Report on 7-1-76 and state that in the best of my knowledge and belief, the Manufacturer has constructed this piping in accordance with the applicable Subsections of ASME Code, Section III. The Hartford Steam Boiler Inspection and Insurance Company By signing this certificate, neither the Inspector nor his employer make any warranty, expressed or implied, concerning the piping in this Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

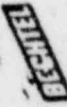
By Benny K. Bello, 1976 Commission N.C. - NO. 878
(Inspector)



mech. cast

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 556	20. Page 1 of 2	
2. Unit(s) Units 1 & 2	3. Drawing/Part No. See Block 16	Rev	4. Item Description ASME III, Class II, Bolts	5. Item Location Whse Hold Area		
6. P.O. Or Spec No. M-104A	7. Serial No. See Block 16	8. Replacement Part P/N _____ REV _____	9. Source Vendor	10. Contractor/Supplier ITT Grinnell / Texas Bolt Company		
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO R-1.00-327 NO M-201 Rev 7	12. ASME AUTHORIZED INSPECTION REQ'D <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC'G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: ASME Code, Section II, 1971 Edition thru Summer 1973 Addenda, Spec SA-453, Para 7.2.1 states: "Requirements - The material shall conform to the stress-rupture requirements in Table 4 for design temperature above 800°F." SA-453 Para 13.1 states: "The producers certification that the material was manufactured and tested in accordance with this specification together with a report of the test results shall be furnished at the time of shipment."				24. Disposition Concurrence REWORK <input type="checkbox"/> REJECT <input type="checkbox"/> REPAIR <input type="checkbox"/> USE AS IS <input checked="" type="checkbox"/>		
17. Reported By Robert S Morrow 10/5/76				18. Validated By JA [Signature] 10-76		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)				25. Disposition Results Concur with Engineering disposition Robert S Morrow 12/6/76		
22. <input type="checkbox"/> Field Engineering Disposition <input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Route to Project Engineering to verify that the maximum design pressure of Piping Class FCB or any other Piping Class does not exceed 800°F. If so, stress-rupture testing in accordance with para. 7.2.1 of SA-453, ASME Section II, 1971 edition with Addenda through summer 1973 is not required.						
23. Project Engineering Disposition Design conditions for each piping line are given in Piping Class Summary Sheets, Drawing 7220-M-480(Q) not Piping Class Sheets 7220-M-481. No line of any pipe class has a design temperature in excess of 800F.						
Mr. Pulito 10-15-76 J.R. Barber 10-14-76 G. Butler 10-15-76 See you [Signature] 10/21/76				26. QC Acceptance Robert S. Morrow 12/6/76		
				QC ENGINEER [Signature] 12/6/76		
				AUTHORIZED INSPECTOR [Signature] 12/6/76		



NONCONFORMANCE REPORT (CONT'D)

Block 16 continued

Contrary to the above, the Certified Material Test Report on the following studs do not include the results of the Stress-Rupture Test. Design temperature of piping class is above 800°F per Piping Class Sheet - Drawing 7220-M-481, Rev 9.

Texas Bt Order No	Item No	Part No	Qty	Type	Specification	Piping Class
103281	61413	MR-7017-2	34	1-1/8X7 ¹ / ₂ stud	SA 453 Gr 660	FCB
103472-A	61408	MR-7016-5	16	1 ¹ / ₄ X8 ¹ / ₄ stud	SA 453 Gr 660	FCB
104040-A	61362	MP-7009-6	16	1 ¹ / ₄ X8 ¹ / ₄ stud	SA 453 Gr 660	FCB
104040-A	61363	MP-7009-7	32	1-1/8X7 ¹ / ₄ stud	SA 453 Gr 660	FCB
104040-A	61364	MP-7009-8	12	1-1/8X11-1/8 stud	SA 453 Gr 660	FCB

Nonconformance noted during receipt inspection. "Q" number is indeterminate. Hold pending final disposition. / hold tag(s) applied.

- White Copy - Originator
- Canary Copy - Field Engineer
- Pink Copy - POAE
- Goldenrod Copy - QC



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. <i>5/14/76</i> NO 562	20. Page 1 of 2	
2. Unit(s) 1	3. Drawing/Part No. M-616 sht. 7	Rev 4/FI	4. Item Description Field Weld 8, Cooling Water Return	5. Item Location Aux. Bldg.		
6. P.O. Or Spec No. NA	7. Serial No. Field Weld 8	8. Replacement Part P/N NA REV NA	9. Source Construction	10. Contractor/Supplier NA		
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input checked="" type="checkbox"/> OTHER NO. <u>NA-WR-5</u> <u>FIW-4</u>		12. ASME AUTHORIZED INSPECTION REQ'D <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD	
16. Nonconforming Condition: FIW-4 Rev. 0 (Field Instructions for A.I. Hold Points) Procedure B.2 states that Authorized Inspector Hold Points designated on WR-19 Form will be transferred to the WR-5 Form (Field Welding Checklist). Contrary to the above, the designated hold points were not entered on the WR-5 Form, and the word "none" was entered later in the field, and resulted in the complete weld being made without obtaining the Authorized Inspector Hold Point designated on WR-19 Form. The inspection point that had been selected by the			24. Disposition Concurrence			
			REWORK	REJECT	REPAIR	
					X	
			<i>5/15/76</i> <i>11/29/76</i> PROJECT FIELD ENGINEER DATE <i>11-19-76</i> PROJECT ENGINEER DATE <i>11-24-76</i> PROJECT CONST QC ENGINEER DATE AUTHORIZED INSPECTOR DATE <i>12-3-76</i>			
17. Reported By <i>A. LeBouder</i>	Date <i>10/12/76</i>	18. Validated By <i>A. Monnelly</i>	Date <i>10-13-76</i>	25. Disposition Results Concurrence obtained from the A.I. to revise hold points as recommended. WR-5 revised accordingly and A.I. inspection completed. Field Welding and A.C. Welding Engineers Training completed as recommended (A.I. RCFM # 2652 and BT # 85). <i>Paul W. Kutter 12/6/76</i>		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)				
22. <input type="checkbox"/> Field Engineering Disposition <input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING						
1. Change hold point required on WR-19, from 14A to ^{16A DM 3-76} 18A. A/I will conduct final visual inspection to hold point ^{16A DM 3-76} 18A, record on WR-5 form and use as is.						
2. Instruct welding engineers and QC welding Engineers on A/I requirement to WD.1 and FIW-4 Rev. 0. <i>J. Williams 10-14-76</i> <i>Nancy M. Matheson 12-3-76</i>						
23. Project Engineering Disposition Recommend that this type of NCR be dispositioned by the Field. Ann Arbor Engineering does not have a copy of FIW-4. Field Engineering recommended disposition is acceptable to Project Engineering. This disposition assumes that the Field has already obtained approval from the A/I to change the HOLD point. <i>T. Jones 11/10/76</i>						
				26. QC Acceptance <i>Paul W. Kutter</i> QC ENGINEER <i>Paul W. Kutter</i> AUTHORIZED INSPECTOR	DATE <i>12/6/76</i> DATE <i>11/17/76</i> DATE	

SECRET

NONCONFORMANCE REPORT (CONT'D)

14 NCR NO

562

PAGE 2 OF 2

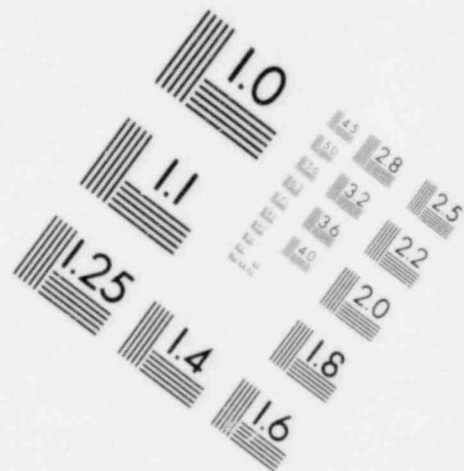
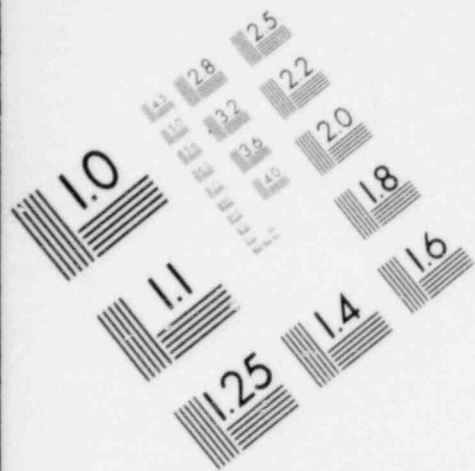
Block 16 Continued:

Authorized Inspector was at fit-up (Item 14A on the WR-5).

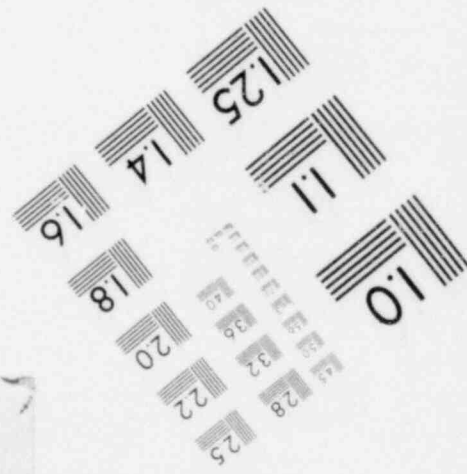
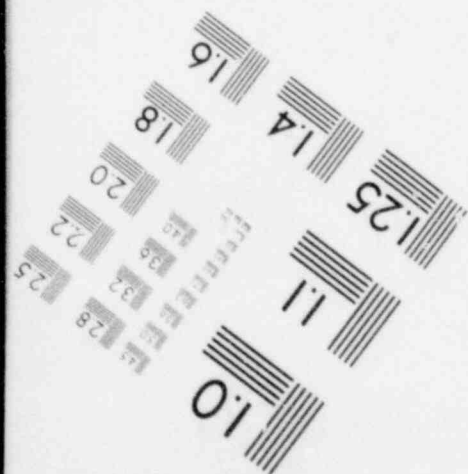
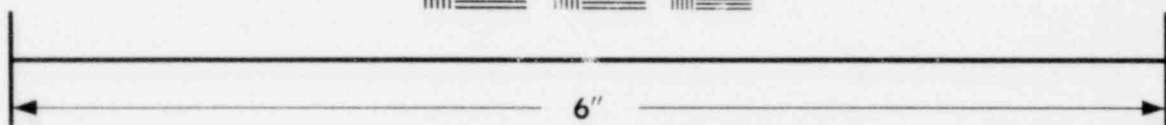
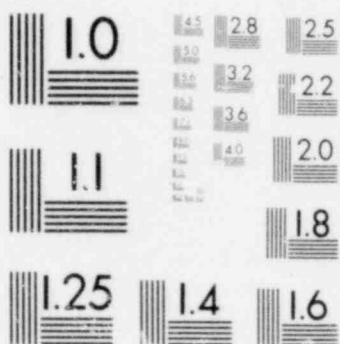
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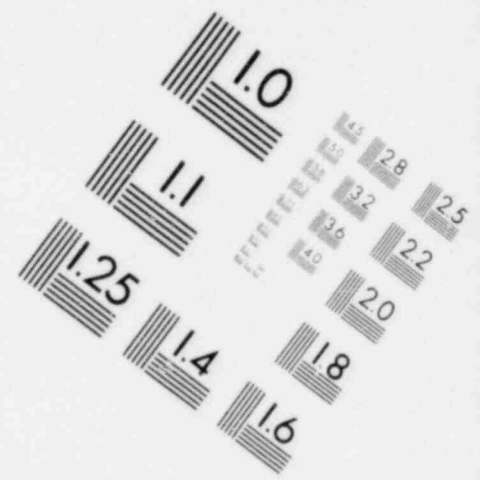
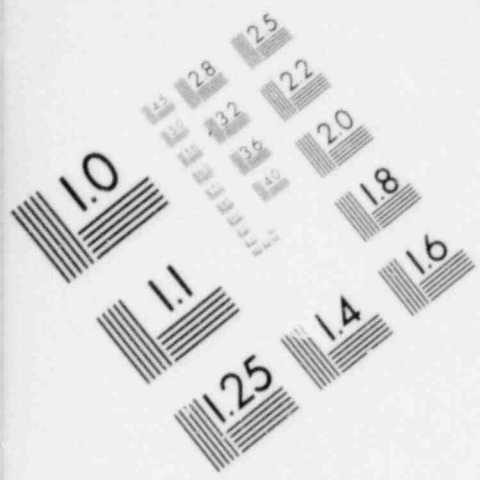
No hold tags applied

White Copy - Originator
Canary Copy - Field Engineer
Pink Copy - PQAE
Goldendrod Copy - QC

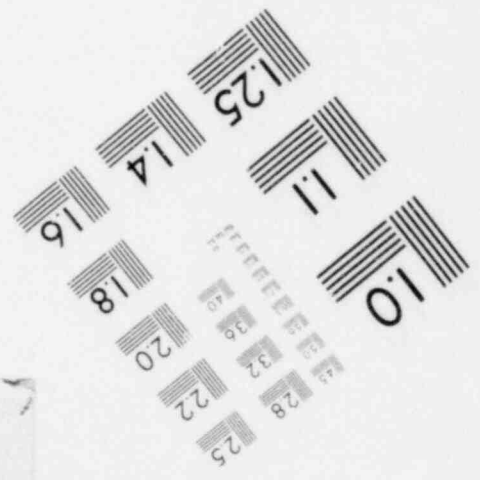
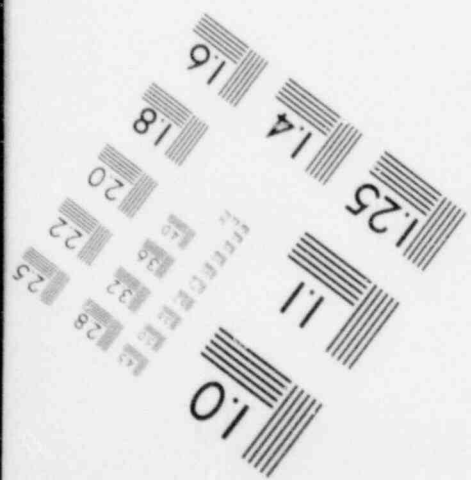
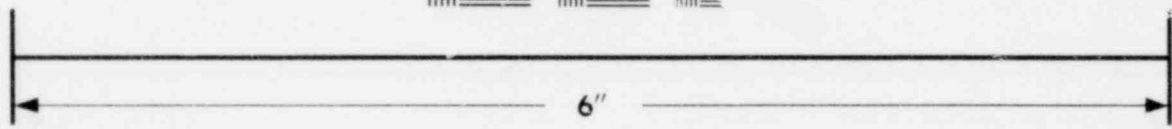
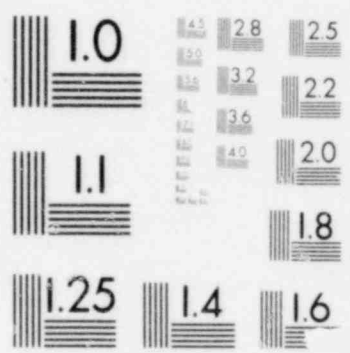


**IMAGE EVALUATION
TEST TARGET (MT-3)**





**IMAGE EVALUATION
TEST TARGET (MT-3)**





NONCONFORMANCE REPORT

Corrected Copy

1. Project Name Midland		Job No. 7220		19. No. 571	20. Page 1 of 2
2. Unit(s) #2	3. Drawing/Part No. 7220-C-658 & 415	Rev 4 & 1	4. Item Description Structural Steel & Pipe Restr. Embeds		5. Item Location Combination Shop
6. P.O. Or Spec No. C-233, App. A	7. Serial No. E-2 & PRE 48	8. Replacement Part P/N N/A REV _____	SER NO. _____	9. Source Construction	10. Contractor/Supplier N/A
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input checked="" type="checkbox"/> OTHER NO. FCR C-516		12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST			15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD		
16. Nonconforming Condition FCR C-516 gave approval to notch the vertical shear tabs on the back of 4 structural steel embeds (type E2) for interference with horiz. reinf. in the let down cooler walls at El. 605'6" in Cont. #2. There were to be 3 notches in each embed that were 1" deep x 1 1/2" wide. Contrary to this, one pipe restraint embed type 48 was notched by mistake and the size of the notches in the E-2 embeds were 1" deep x 2" to 6 1/2" wide. This condition was noted during installation of the embeds. The Q number is 1.102. Work may proceed up			24. Disposition Concurrence REWORK <input checked="" type="checkbox"/> REJECT <input type="checkbox"/> REPAIR <input type="checkbox"/> USE AS IS <input type="checkbox"/> J.C. [Signature] 10-27-76 PROJECT FIELD ENGINEER DATE [Signature] 10-28-76 PROJECT ENGINEER DATE [Signature] 10-28-76 PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		
17. Reported By J. Betts	Date 10-16-76	18. Validated By [Signature]		Date 10-20-76	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)		25. Disposition Results Work completed and documented on IR # C-2.20-34.			
22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING			The vertical shear tabs on the 5 embeds mentioned in Item #1 will be cut off and reworked in accordance with GWS-Structural Section 5.5 of Spec. G-27, Bechtel's Project Engineering approved General Welding Standards. The embeds will be reworked to conform with the design as shown on the applicable Bechtel drawings 7220-C-658 & C-415. J. Betts 10/26/76 Mont 10/26/76 [Signature] 10/27/76		
23. Project Engineering Disposition			26. QC Acceptance [Signature] 12/3/76 QC ENGINEER DATE AUTHORIZED INSPECTOR		

BECHTEL

BLOCK #16 CONTINUED:

NONCONFORMANCE REPORT (CONT'D)

1 PAGE 2 OF 2

14 NCR NO.

57

~~to concrete-embedment.~~ *Hold for 14/20/76*
5/10/21/76

Hold For Engineer Disposition 10/20/76

10098-2

QC-GJ-3

White Copy	-	Originator
Canary Copy	-	Field Engineer
Pink Copy	-	QA/E
Goldanrod Copy	-	QC



NONCONFORMANCE REPORT

1. Project Name Midland Nuclear Power Plant		Job No. 7220		19. No. 576	20. Page 1 of 13	
2. Unit(s) N/A	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Users Tests for Ice	5. Item Location N/A		
6. P.O. or Spec No. C-208, Rev. 7	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A	SER NO. N/A	9. Source Subcontractor	10. Contractor/Supplier U. S. Testing Company	
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. N/A NO. C-208	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By N/A <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: Per para. 6.3, C-208, R-7 a Users Test will be run on water & ice used in concrete every 2500 c.y. "Hot Weather Concreting" began on 4/19/76. Users Test #30 was run on 4/19/76 for both water and ice. However, Users Tests #31 (4/30/76) and #32 (6/25/76) did not include ice samples. Users Test #33 (8/9/76), #34 (8/20/76), and #35 (9/9/76) included both water and ice. No QC Hold Tags were applied.				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS <input checked="" type="checkbox"/>		
17. Reported By <i>John L...</i>		Date 10/22/76	18. Validated By <i>J. M. Reilly</i>	Date 10-22-76	25. Disposition Results	
21. Routing <input type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)						
22. <input type="checkbox"/> Field Engineering Disposition <input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING		One load of ice was received on April 19, 1976, but it was not used. The first load of ice used in concrete was received on June 8, 1976 with subsequent loads received on 6/8/76, 6/11/76, 6/14/76 and 6/15/76. The next shipment was on July 1, 1976. Results of user's tests for water and ice are attached for evaluation. Use as is.				
23. Project Engineering Disposition		Project Engineering concurs with the Field Engineering recommended disposition to "use as is" based on the following: 1) Users tests # 30, 33, 34 and 35 were run on ice and met all Specification requirements. 2) All ice delivered in 1976 prior to June 8th was not used in concrete. 3) Within the last year, all users tests run on ice have met specification requirements.				
		26. QC Acceptance QC ENGINEER <i>B. T. Clark</i>		Date 12/23/76	AUTHORIZED INSPECTOR DATE	

Approved 12-16-76 *[Signature]*

United States Testing Company, Inc.

CLIENT:

Bechtel Power Corporation
Midland, Michigan 48640

Number
7220

Report No. 101
June 4, 1976
Amended to include
ASTM-C-150-7
Chemical and
Physical Result
June 24, 197

II. Chemical Analysis and Physical Testing of Batch Plant Water in accordance with AASHO-T26-70 and project specification 7220-C-208.

A. Chemical Analysis
AASHO-T26-70

	<u>Specimen Results</u>	<u>Specification Requirements</u>
PH	8.0	5.5 - 8.5
Cl	12 ppm	250 ppm Max.
SO ₄	27 ppm	1000 ppm Max.
Fe	0.10 ppm	1.0 ppm Max.
Organic Matter	57 ppm	--

B. Physical Testing
Seven Day
Compressive Strength
ASTM-C-109-70T

Distilled Water	2683 psi
Batch Plant Sample	2567 psi

	<u>Batch Plant</u>	<u>Spec. Req.</u>
Change in Strength	-4.51%	-10% Max.

• Time of Setting Hydraulic
Cement Vicat Needle
ASTM-C-191-7i

	Time of setting in Minutes		% Change		<u>Spec. Req.</u>
	<u>Initial</u>	<u>Final</u>	<u>Initial</u>	<u>Final</u>	
Distilled Water	160 Min.	330 Min.			
Batch Plant Sample	170 Min.	330 Min.	9.4%	0%	25.0% Max.

USERS TEST # 29
SAMPLES COLLECTED APRIL 1, 1976

(KLP)

*John Lutz
6/29/76*

Page 3 of 17

CLIENT:

Bechtel Power Corporation
Midland, Michigan 48640

Number
44208

Report No. 98
May 25, 1976

Amended to include
Chemical Analysis.

II. Chemical Analysis and Physical Testing of Batch Plant Water in July 20, 1976
accordance with AASHO-T26-70 and Project Specification 7220-C-208.

A. Chemical Analysis
AASHO-T-26-70

	Specimen Results		Specification Requirements
	Ice Water	Batch Water	
pH	7.8	7.8	5.5 - 8.5
Cl	10 ppm	27 ppm	250 ppm Max.
SO ₄	10 ppm	45 ppm	1000 ppm Max.
Fe	0.01 ppm	0.01 ppm	1.0 ppm Max.
Organic Matter	10 ppm	58 ppm	-

B. Physical Testing
Seven Day
Compressive Strength
ASTM-C109-70T

Distilled Water	1740 psi
Ice Water	1760 psi
Distilled Water	1740 psi
Batch Plant Sample	1780 psi

	Batch Plant	Spec. Req.
Change in Strength Ice Water	+ 1.1%	- 10% Max.
Change in Strength Batch Water	+ 2.2%	

USER'S TEST # 30

SAMPLES COLLECTED 4/19/76

(Handwritten signature: KLR)

(Handwritten: S.H.A. 7/23/76)

(Handwritten: Tom J... 7-23-76)

(Vertical handwritten: 4-27-76)

CLIENT: Bechtel Power Corporation
Midland, Michigan 48640

44208
Report No. 98
May 25, 1976
Amended to include Chemical
Analysis.

Time of Setting Hydraulic
Cement Vicat Needle
ASTM-C191-71

July 20, 1976

	Time of Setting in Minutes		% Change		Spec. Req.
	Initial	Final	Initial	Final	
Distilled Water	120	225			
Batch Plant Sample	130	220	+7.7%	-2.2%	25.0% Max.
Distilled Water	120	225			
Ice Water	115	225	-4.3%	0.0%	25.0% Max.

III. Chemical Analysis and Physical Testing of the Aggregate in accordance with the project specifications.

A. Chemical Analysis

Potential Reactivity of the Aggregate (Chemical Method)
ASTM-C289-71

Fine Aggregate	Rc = 68.0	millimoles/liter	considered innocuous
	Sc = 17.0	millimoles/liter	
3/4" Aggregate	Rc = 272.0	millimoles/liter	considered innocuous
	Sc = 2.3	millimoles/liter	
1 1/2" Aggregate	Rc = 265.2	millimoles/liter	considered innocuous
	Sc = 2.0	millimoles/liter	

B. Physical Testing

Resistance to Abrasion of Small Size Coarse Aggregate by use of the Los Angeles Machine - 500 revolutions

	Specimen Results	Spec. Req.
3/4" - 1 1/2" Crushed Stone - A Grading	27.8%	40% Max.

Handwritten:
H. J. Smith
7/23/76
ENA
7/23/76

Vertical handwritten:
6:07 16

United States Testing Company, Inc.

HOBOKEN, N. J. 07030
TELEPHONE: 201-792-2400



REPORT

Client: Bechtel Power Corporation
Post Office Box 2167
Midland, Michigan 48640

NUMBER
44228
(Refer to this number)
Report No. 105.
August 4, 1976

Subject: Chemical Analysis and Physical Testing of the
32nd Users Samples representing 77,501 thru
80,000 Cubic Yards produced. Sampled at
77,888 Cubic Yards.

USERS TEST #32
KLD

Project: Job 7220 Midland Project
Subcontract 7220-C-208

Sampling Data:

Sample Identity: Sand - Hubscher & Sons - Mt. Pleasant, Michigan
3/4" and 1 1/2" Limestone - Drummond Dolomite
Batching Mixing Water - Jobsite Sample
Date Sampled: June 28, 1976 *25 Jan Feb 8/16/76*
Sampled By: United States Testing Company Personnel
Dates Tested: July 7, 1976 thru August 3, 1976 at the
Hoboken New Jersey Laboratories

United States Testing Company Shipment No. 36

I. Chemical Analysis and Physical Testing of Batch Plant Water in
accordance with AASHO-T26-70 and Project specification 7220-C-208.

A. Chemical Analysis
AASHO-T26-70

	<u>Specimen Results</u>	<u>Spec. Req.</u>
pH	6.8	5.5 - 8.5
Cl	17 ppm	250 ppm Max.
SO ₄	< 10 ppm	1000 ppm Max.
Fe	< 0.01 ppm	1.0 ppm Max.
Organic Mater	24 ppm	-

Jan Feb 8/16/76

United States Testing Company, Inc.
by *Fred D. Rose*
Fred D. Rose
Project Engineer

OUR LETTERS AND REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED, AND THEIR COMMUNICATION TO ANY OTHERS OR THE USE OF THE NAME OF UNITED STATES TESTING COMPANY, INC., MUST RECEIVE OUR PRIOR WRITTEN APPROVAL. OUR LETTERS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. SAMPLES NOT DESTROYED IN TESTING ARE RETAINED A MAXIMUM OF THIRTY DAYS. THE REPORTS AND LETTERS AND THE NAME OF THE UNITED STATES TESTING COMPANY, INC., OR ITS SEALS OR INSIGNIA, ARE NOT TO BE USED UNDER ANY CIRCUMSTANCES IN ADVERTISING TO THE GENERAL PUBLIC.

United States Testing Company, Inc.

CLIENT:

Bechtel Power Corporation
Midland, Michigan 48640

Number

44190

Report No. 103

June 22, 1976

Amended to include
Chemical Analysis
August 9, 1976

II. Chemical Analysis and Physical Testing of Batch Plant Water in accordance with AASHO-T-26-70 and project specification 7220-C-208.

A. Chemical Analysis
AASHO-T-26-70

	<u>Specimen Results</u>	<u>Specification Requirements</u>
PH	8.0	5.5 - 8.5
Cl	14 ppm	250 ppm Max.
SO ₄	10 ppm	1000 ppm Max.
Fe	0.01 ppm	1.0 ppm Max.
Organic Matter	32 ppm	---

B. Physical Testing
Seven Day
Compressive Strength
ASTM-C-109-70T

Distilled Water 2225 psi
Batch Plant Sample 2283 psi

	<u>Batch Plant</u>	<u>Specification Requirements</u>
Change in Strength	+2.5%	-5% Max.

Time of Setting Hydraulic
Cement Vicat Needle
ASTM-C-191-71

	Time of Setting in Minutes		% Change		<u>Spec. Req.</u>
	<u>Initial</u>	<u>Final</u>	<u>Initial</u>	<u>Final</u>	
Distilled Water	205	275			
Batch Plant Sample	200	275	-2.5%	0.00%	25.0% Max.

NOTE: USERS TEST 31
SAMPLES COLLECTED 4/30/76

KAD

*B. Chai
8/20/76
M. Sam Lub 8/19/76*

0110

United States Testing Company, Inc.

CLIENT:

Bechtel Power Corporation
Midland, Michigan 48640

Number
44228
Report No. 105
August 4, 1976

B. Physical Testing
Seven Day
Compressive Strength
ASTM-C-109-70T

Distilled Water 2375 psi
Batch Plant Sample 2383 psi

	<u>Batch Plant</u>	<u>Spec. Req.</u>
Change in Strength	+0.3%	-5% Max. Reduction of more than 10% Jon Jul 8/16/76 Bechtel 8/17/76
Time of Setting Hydraulic Cement Vicat Needle ASTM-C-191-71		

	Time of Setting in Minutes		% Change		<u>Spec. Req.</u>
	<u>Initial</u>	<u>Final</u>	<u>Initial</u>	<u>Final</u>	
Distilled Water	105	180			
Batch Plant Sample	105	185	0.0%	+2.7%	25.0% Max.

II. Chemical Analysis and Physical Testing of the Aggregate in accordance with the project specifications

A. Chemical Analysis

Potential Reactivity of the Aggregate (Chemical Method)
ASTM-C-289-71

Fine Aggregate	Rc = 31.5 millimoles/liter considered innocuous
	Sc = 22.3 millimoles/liter
3/4" Aggregate	Rc = 173.3 millimoles/liter considered innocuous
	Sc = 2.3 millimoles/liter
1 1/2" Aggregate	Rc = 257.3 millimoles/liter considered innocuous
	Sc = 3.3 millimoles/liter

Jon Jul
8/16/76

5
L-2-2-2-1

CLIENT:

Bechtel Power Corporation
Midland, Michigan 48640

44228

Report No. 113
August 31, 1976

Amended to include
Chemical Analysis.
September 10, 1976

II. Chemical Analysis and Physical Testing of Batch Plant Water in accordance with AASHTO-T-26-70 and project specification 7220-C-208.

A. Chemical Analysis
AASHTO-T-26-70

	<u>Specimen Results</u>	<u>Spec. Req.</u>
pH	7.7	5.5 - 8.5
Cl	15 ppm	250 ppm Max.
SO ₄	17 ppm	1000 ppm Max.
Fe	0.05 ppm	1.0 ppm Max.
Organic Matter	34 ppm	-

B. Physical Testing Seven Day
Compressive Strength
ASTM-C-109-70T

Distilled Water	2617 psi
Batch Plant Sample	2458 psi

	<u>Batch Plant</u>	<u>Spec. Req.</u>
Change in Strength	-6.5%	-10% Max.

Time of Setting Hydraulic
Cement Vicat Needle
ASTM-C-191-71

	<u>Time of Setting in Minutes</u>		<u>% Change</u>		<u>Spec. Req.</u>
	<u>Initial</u>	<u>Final</u>	<u>Initial</u>	<u>Final</u>	
Distilled Water	135	220			
Batch Plant Sample	130	215	-3.8%	-2.3%	25.0% Max.

NOTE: USER'S TEST # 33
SAMPLES COLLECTED AUG. 9, 1976

KLR

Y. Q. G. DEVALDO
9/24/76

CLIENT:

Bechtel Power Corporation
Midland, Michigan 48640

Number

44228

Report No. 113
August 31, 1976

Amended to include
Chemical Analysis.
September 10, 1976

III. Chemical Analysis and Physical Testing of Batch Plant Ice Water in accordance with AASHO-T-26-70 and project specification 7220-C-208.

A. Chemical Analysis
AASHO-T-26-70

	<u>Specimen Results</u>	<u>Spec. Req.</u>
pH	7.4	5.5 - 8.5
Cl	<10 ppm	250 ppm, Max.
SO ₄	<10 ppm	1000 ppm, Max.
Fe	<0.01 ppm	1.0 ppm, Max.
Organic Matter	37 ppm	-

B. Physical Testing
Seven Day Compressive Strength
ASTM-C-109-70T

Distilled Water 2617 psi
Batch Plant Ice Sample 2425 psi

	<u>Batch Plant</u>	<u>Spec. Req.</u>
Change in Strength	-7.9%	-10% Max.

Time of Setting Hydraulic
Cement Vicat Needle
ASTM-C-191-71

	<u>Time of Setting in Minutes</u>		<u>% Change</u>		<u>Spec. Req.</u>
	<u>Initial</u>	<u>Final</u>	<u>Initial</u>	<u>Final</u>	
Distilled Water	135	220			
Batch Plant Ice Water	130	215	-3.8%	-2.3%	25.0% Max.

10/23/76
C. G. REYNOLDS
J. M. J. DATE

CLIENT:

Bechtel Power Corporation
Midland, ... igan 48640

Number

44238

Report No. 115
September 27, 1976

I. Chemical Analysis and Physical Testing of Batch Plant Water in accordance with AASHO-T-26-70 and project specification 7220-C-208.

A. Chemical Analysis
AASHO-T-26-70

	<u>Specimen Results</u>	<u>Spec. Req.</u>
pH	7.8	5.5 - 8.5
Cl	<10 ppm	250 ppm, Max.
SO ₄	<10 ppm	1000 ppm, Max.
Fe	< 0.10 ppm	1.0 ppm, Max.
Organic Matter	15 ppm	-

B. Physical Testing Seven Day
Compressive Strength
ASTM-C-109-70T

Distilled Water	3775 psi
Batch Plant Sample	3758 psi

	<u>Batch Plant</u>	<u>Spec. Req.</u>
Change in Strength	-0.4%	-10% Max.

Time of Setting Hydraulic
Cement Vicat Needle
ASTM-C-191-71

	<u>Time of Setting in Minutes</u>		<u>% Change</u>		<u>Spec. Req.</u>
	<u>Initial</u>	<u>Final</u>	<u>Initial</u>	<u>Final</u>	
Distilled Water	185	295			
Batch Plant Sample	195	305	+5.4%	+2.7%	25.0% Max.

NOTE: USER'S TEST # 34
SAMPLES COLLECTED AUG. 20, 1976

(Handwritten signature)

*John L. ...
10-4-76*

United States Testing Company, Inc.

CLIENT:

Bechtel Power Corporation
Midland, Michigan 48640

Number

44238
Report No. 115
September 27, 1976

II. Chemical Analysis and Physical Testing of Batch Plant Ice Water in accordance with AASHTO-T-26-70 and project specification 7220-C-208.

A. Chemical Analysis
AASHTO-T-26-70

	<u>Specimen Results</u>	<u>Spec. Req.</u>
pH	7.6	5.5 - 8.5
Cl	<10 ppm	250 ppm, Max.
SO ₄	<10 ppm	1000 ppm, Max.
Fe	<0.01 ppm	1.0 ppm, Max.
Organic Matter	<10 ppm	-

B. Physical Testing Seven Day
Compressive Strength
ASTM-C-109-70T

Distilled Water	3775 psi
Batch Plant Ice Sample	3575 psi

	<u>Batch Plant</u>	<u>Spec. Req.</u>
Change in Strength	-5.3%	-10%, Max.

Time of Setting Hydraulic
Cement Vicat Needle
ASTM-C-191-71

	<u>Time of Setting in Minutes</u>		<u>% Change</u>		<u>Spec. Req.</u>
	<u>Initial</u>	<u>Final</u>	<u>Initial</u>	<u>Final</u>	
Distilled Water	185	295			25.0%, Max.
Batch Plant Ice Water	190	295	+2.7%	0.0%	

M. J. L. Sub.
10-4-76

CLIENT: Bechtel Power Corporation
Midland, Michigan 48640

NCR 576 Number

44246

Report No. 118
October 8, 1976

II. Chemical Analysis and Physical Testing of Batch Plant Water in accordance with AASHO-T26-70 and project specification 7220-C-208.

A. Chemical Analysis
AASHO-T26-70

	<u>Specimen Results</u>	<u>Spec. Req.</u>
pH	7.8	5.5 - 8.5
Cl	29 ppm	250 ppm Max.
SO ₄	< 10 ppm	1000 ppm Max.
Fe	< 0.01 ppm	1.0 ppm Max.
Organic Matter	80 ppm	-

B. Physical Testing
Seven Day Compressive Strength
ASTM-C109-70T

Distilled Water	3092
Batch Plant Sample	3233

	<u>Batch Plant</u>	<u>Spec. Req.</u>
Change in Strength	+4.4%	-10% Max.

Time of Setting, Hydraulic
Cement Vicat Needle
ASTM-C191-71

	Time of Setting in Minutes		%		<u>Spec. Req.</u>
	<u>Initial</u>	<u>Final</u>	<u>Initial</u>	<u>Final</u>	
Distilled Water	105	235			
Batch Plant Sample	113	233	+7.1%	-0.9%	25.0% Max.

NOTE: USER'S TEST # 35

DATE SAMPLES COLLECTED SEPT. 9, 1976

(KLD)

*My Jim Sub
10/26/76*

CLIENT: Bechtel Power Corporation
Midland, Michigan 48640

NCR 576 Number
44246

Report No. 118
October 8, 1976

III. Chemical Analysis and Physical Testing of Batch Plant Ice Water in accordance with AASHO-T26-70 and project specification 7220-C-208.

A. Chemical Analysis
AASHO-T26-70

	<u>Specimen Results</u>	<u>Spec. Req.</u>
pH	7.7	5.5.- 8.5
Cl	<10 ppm	250 ppm, Max.
SO ₄	<10 ppm	1000 ppm, Max.
Fe	<0.01 ppm	1.0 ppm, Max.
Organic Matter	51 ppm	-

B. Physical Testing
Seven Day Compressive Strength
ASTM-C109-70T

Distilled Water	3092
Batch Plant Ice Sample	3167

	<u>Batch Plant</u>	<u>Spec. Req.</u>
Change in Strength	+2.4%	-10% Max.

Time of Setting, Hydraulic
Cement Vicat Needle
ASTM-C-191-71

	Time of Setting in Minutes				<u>Spec. Req.</u>
	<u>Initial</u>	<u>Final</u>	<u>Initial</u>	<u>Final</u>	
Distilled Water	105	235			
Batch Plant Ice Water	110	230	+4.5	-2.2	25% Max.

*Y. Jan List
10/26/76*



NONCONFORMANCE REPORT

1. Project Name Midland Nuclear Plant		Job No. 07220		19. No. 580	20. Page 1 of 1			
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Concrete Curing		5. Item Location Aux. Bldg. E1. 014'-0" H to K Line 6.6 to 7.2			
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/A REV _____	SER NO. _____	9. Source Construction	10. Contractor/Supplier N/A			
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. C-1.40-77 NO. 7220-C-231	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC.G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST			
16. Nonconforming Condition: Spec. 7220-C-231, Rev. 11, Paragraph 13.2.4 states that during curing a concrete surface temp. of 50°F must be maintained. However the temp. of the floor topping of pour A(614)h-2 dropped to 43° for 2 hrs. and 47° for 1 hour on 10/22/76. Nonconformance noted during Q. C. surveillance. Hold for final Engineering disposition. One hold tag applied.					15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD			
					24. Disposition Concurrence			
					<table border="1"> <tr> <td>REWORK</td> <td>REJECT</td> <td>REPAIR</td> <td>USE AS IS</td> </tr> <tr> <td></td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> </tr> </table>	REWORK	REJECT	REPAIR
REWORK	REJECT	REPAIR	USE AS IS					
			<input checked="" type="checkbox"/>					
17. Reported By <i>Ames Series</i>		Date 10/28/76	18. Validated By <i>R. Kennedy</i>		Date 10-28-76			
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)					25. Disposition Results			
22. <input type="checkbox"/> Field Engineering Disposition <input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING								
Use as is. This topping was done with D-1 grout. Curing was for 7 days and subsequently extended for 1 additional day. <i>R. Kennedy 11/2/76</i> <i>Ames Series 11/11/76</i>								
23. Project Engineering Disposition								
The lower concrete curing temperature will tend to reduce shrinkage, setting rate, and water demands, while increasing durability and required curing time. Engineering concurs with the field recommended disposition to "use as is" because (1) The minimum concrete surface temperature was 43°F for 2 hours and freezing did not occur. (2) The cure for the subject concrete pour was extended one full day.								
					26. QC Acceptance <i>Ames Series</i>			
					QC ENGINEER 12/13/76			
					DATE			
					AUTHORIZED INSPECTOR <i>Ames Series</i>			
					DATE 12-2-76			

AMP 12-2-76

Callahan 12-1-76

12-2-76



NONCONFORMANCE REPORT

1. Project Name Midland Nuclear Plant		Job No. 7220		19. No. 581	20. Page 1 of 1	
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Concrete Curing	5. Item Location Aux. Bldg. El. 614'-0" H to K Line		
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/ REV	9. Source Construction	10. Contractor/Supplier N/A	5.9 to 6.6	
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. C-1,40-81 NO. 7220-C-231	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: Spec. 7220-C-231, Rev. 11, Paragraph 13.2.4 states that during curing a concrete surface temp. of 50°F must be maintained. However, the temp. of the floor topping of pour A(614)h-3 dropped to 49° for an indeterminate time, but not more than 7 hours. Nonconformance noted during Q. C. surveillance. Hold for final eng. disposition. One hold tag applied.				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>		
17. Reported By Aurene M. Harris		Date 10/28/76	18. Validated By R. J. Reynolds		Date 10-29-76	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)				
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING				
"Use as is". A difference of 1°F will have a negligible effect on concrete quality. Curing period was extended by 1 day. This topping was done with D-1 grout.						
23. Project Engineering Disposition Lower concrete curing temperatures will tend to reduce shrinkage, setting rate, and water demand, while increasing durability and required curing time. Engineering concurs with the Field recommended disposition to "use as is" because (1) The minimum concrete surface temperature was 49°F and freezing did not occur. (2) A curing temperature of 49°F in lieu of 50°F allowable minimum will have an insignificant effect upon the concrete properties. (3) The cure for the subject concrete pour was extended one full day.						
25. Disposition Results				26. QC Acceptance A. Harris		
				12/13/76		
				DATE		
				AUTHORIZED INSPECTOR		
				DATE		

ALP

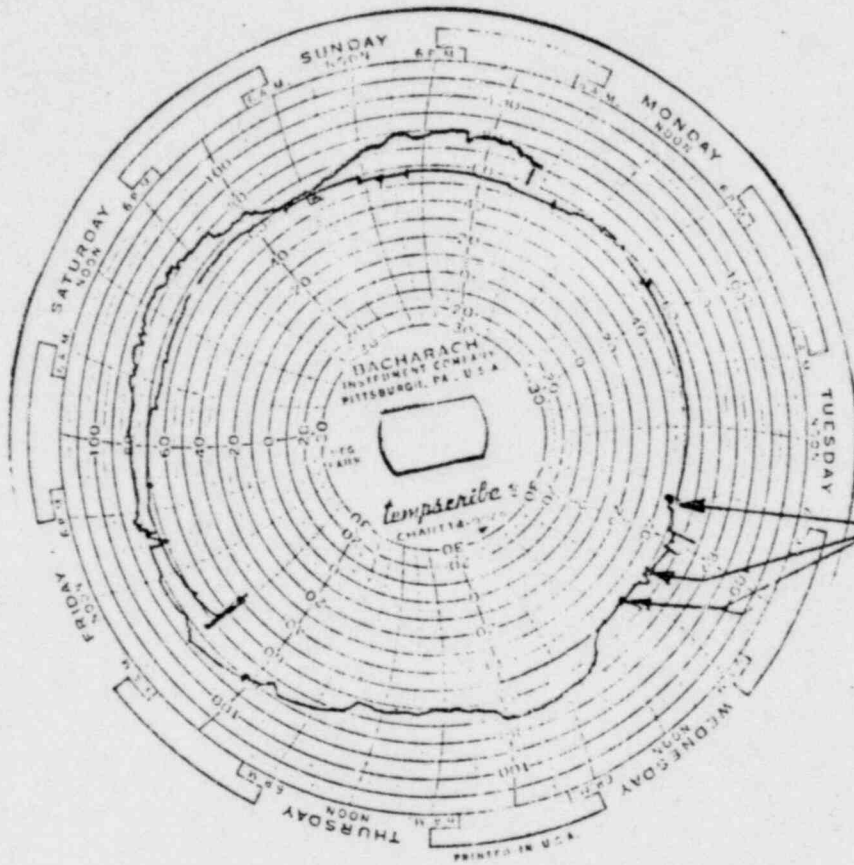
12-2-76



Corrected Copy

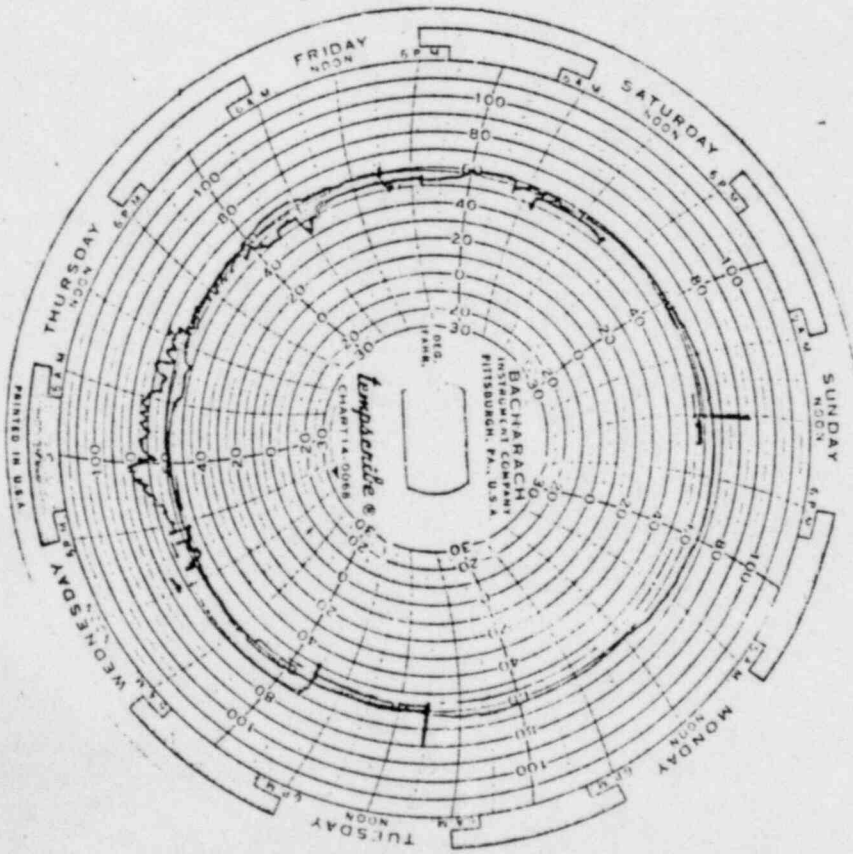
NONCONFORMANCE REPORT

1. Project Name Midland Nuclear Plant		Job No. 7220		19. No. 582	20. Page 1 of 2
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Concrete Curing	5. Item Location Aux. Bldg. West Transfer Tube Walls	
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/A REV	SER NO.	9. Source Construction	10. Contractor/Supplier N/A
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. <i>C-1-40-15 AMT</i> NO. 7220-C-231	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST
15. Equip Furnished By		16. Nonconforming Condition: Spec. 7220-C-231, Rev. 11, Paragraph 13.2.4 states that during curing a concrete surface temp. of 50°F must be maintained. However, the temp. of the walls of pour A(629.5)b' reached 48° for an indeterminate time. Nonconformance noted during Q. C. surveillance. Hold for final eng. disposition. One hold tag applied.		24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS	
17. Reported By <i>Aimee Jones</i>		Date 10/28/76	18. Authorized By <i>M. Connolly</i>	Date 10-29-76	25. Disposition Results
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING	
23. Project Engineering Disposition The lower concrete curing temperature will tend to reduce shrinkage, setting rate, and water demand, while increasing durability and required curing time. Engineering concurs with the Field recommended disposition to "use as is" because (1) The minimum concrete surface temperature was 48°F for a total estimated period of 1 1/2 hour and freezing did not occur. (2) The cure for the subject concrete pour was extended one full day.		26. QC Acceptance <i>A. Jones</i>		Date 12/13/76	
27. AUTHORIZED INSPECTOR		28. DATE		29. AUTHORIZED INSPECTOR	
<i>M. Connolly</i>		12-1-76		<i>Bill Swanson</i>	



A(629)B
10/22/76

TEMP BELOW 50°F



A(614)H-2
10/20/76

A(614)H-3

REF # 582
page 2 of 2

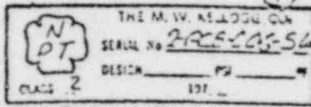


NONCONFORMANCE REPORT

with 12/6/76
18

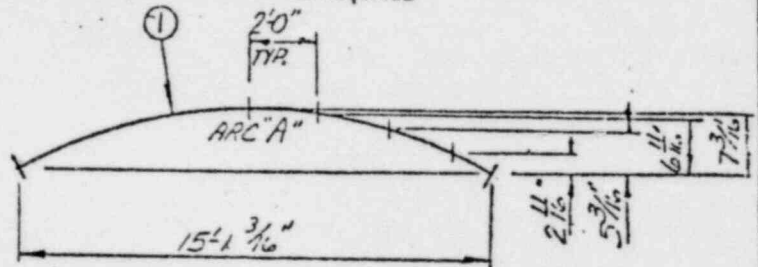
1. Project Name Midland Units 1 and 2		Job No. 7220		19. 586 No.	20. 1 of 2 Page of	
2. Unit(s) 2	3. Drawing/Part No. M-613 sh 1	Rev 3/F2	4. Item Description Nuclear Class 2 Pipe spool 2-GCB-006-S613-7		5. Item Location Containment Dome Unit 2	
6. P.O. Or Spec No. 7220-M115 A	7. Serial No. Pipe HT#738104	8. Replacement Part P/N N/A REV _____ SER NO. _____	9. Source Construction	10. Contractor/Supplier M.W. Kellogg Co.		
11. Inspection Criteria <input checked="" type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER NO. _____ IR NO. PI.10-613-1		12. ASME AUTHORIZED INSPECTION REC'D <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC'G <input type="checkbox"/> CONST <input type="checkbox"/> TEST <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD	15. Equip Furnished By	
16. Nonconforming Condition: The following defects were noted during inspection in the last 21 1/2" of 2 1/2" pipe spool 2-GCB-006-7. a) Three areas approximately 1 1/2" in length each of arc strikes. b) One hole approximately 3/64" in diameter and .0465" in depth located 21 1/2" from the nozzle end, Ref. specification 7220-M-204 Rev. 4 Sect 5.2. "Q" Number 4.134 Q.C. Hold Tags Applied 1			24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> STD Project for Rehabilitation 11/30/76 PROJECT FIELD ENGINEER DATE PROJECT ENGINEER DATE 12-2-76 PROJECT CONSTR QC ENGINEER DATE 12-2-76 AUTHORIZED INSPECTOR DATE 12/2/76			
17. Reported By P.M. Pitts Date 11-4-76		18. Validated By J.B. Ronnelly Date 11-4-76		25. Disposition Results		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)		22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING		Defected areas rework as specified by field engineering in Hook # 22 see completed N.O.T reports attached. Chuck Hart 12-6-76		
23. Project Engineering Disposition			26. QC Acceptance Charles Hart 12-6-76 QC ENGINEER DATE AUTHORIZED INSPECTOR DATE 12/6/76			

NOTES

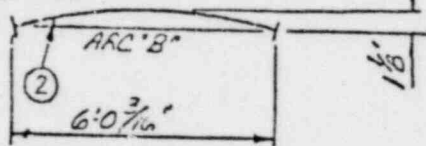
- ASME CODE PLATE DATA (1)

 STEEL STRONG IN 3/16" (MIN) THICKNESS AND ATTACH TO PIPE.
- FERRITE CONTROL REQ'D
8 TC 25 %
- All accessible surfaces of completed fitted nozzle attachment, and branch connection welds 4" or more in dia. and under, and the heat affected zone of the base metal adjacent to the weld shall be examined by LIQUID PENET TEST PER ES-404
- RADIOGRAPH ALL OUTWELDS PER ES-414, ES-415 & ES-416
- All Shop Butt Welds to be K-Insert Welds

WARR NO 2-6CB-006-5613-7	N-8007	F-37	1
SYSTEM #2 CONTAINMENT SPRAY	JOB NO.	SHEET NO.	REV
REF. DGS. M-613 SHT 1 OF 2	REV-1		
EST. VLT. 135%	INSP. CUST.	BEVEL ENDS	CLEAN
			ES-1
			FAB. SPEC 37

QUALITY ASSURANCE REQUIRED



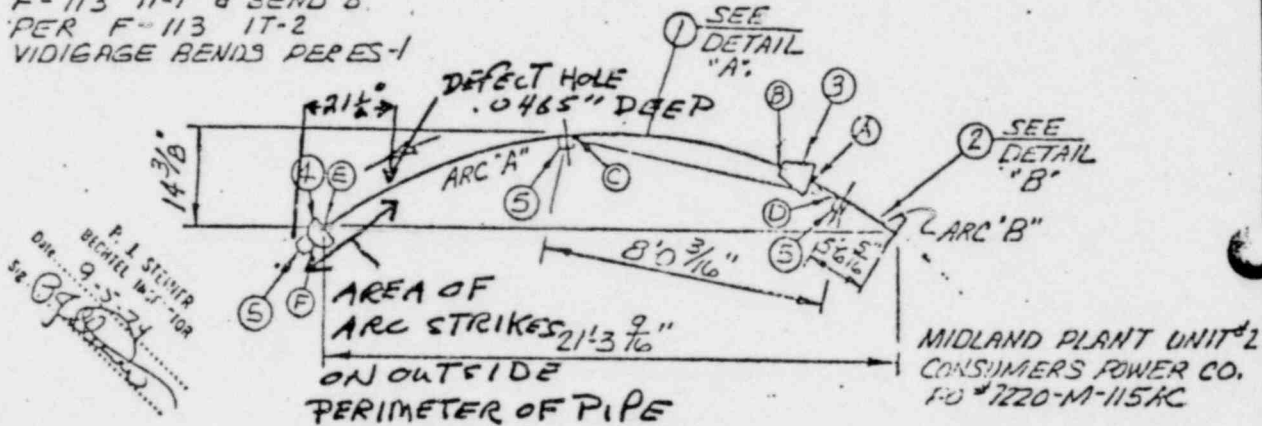
DETAIL 'A'



DETAIL 'B'

REL.	F.A.D.	ANGLE	TANG	LENGTH
'A'	48'0"	18'6"	7'-7 3/8"	15'-1 13/16"
'B'	18'0"	79'1"	3'-0 5/8"	6'-0 3/16"

- VIDIGAGE - BEND 'A' PER "F-113 IT-1 & BEND 'B' PER F-113 IT-2 VIDIGAGE BENDS PER ES-1



P. I. STEINER
 BECHTEL INT. TOR
 DATE: 9-5-74
 52

MIDLAND PLANT UNIT 2
 CONSUMERS POWER CO.
 PO #220-M-115K

REV	DATE	BY	REV'D PER CUST COMMENTS	DESCRIPTION	3" PIPE ASSEMBLY	COLOR CODE:	SPOTS-BAND	THE W. W. BELLOGG CO. POWER PIPING DIVISION
-----	------	----	-------------------------	-------------	------------------	-------------	------------	---

MATERIAL				PRICING DETAIL				
ITEM	QUAN.	DESCRIPTION	SPEC.	SOURCE	UNIT	TOTAL	DISC.	B"
		STEEL AND STEEL ASY.						
1	1	2 1/2" x 3/40 SMLS PIPE E-E 15'-1 13/16"	SA-312 ES-1	72-209 17-4	HT.	738104		
2	1	3" x 5/40 E-E 6'-0 3/16"		PO-3 17-5	HT.	7381367		
3	1	3" x 2 1/2" x 3/40 SMLS CONC W. RED.	SA-853 ES-151	17-13	HT.	JALF		
4	1	2 1/2" x 5/40 SMLS W. CAP	SA-403 ES-151	17-11	HT.	JBKT		
5	3	1" 3000# THREADOLET	SA-112 ES-151	17-27	HT.	J373		
6	1	3.193" OD CONS K-INSERT	SS	5				
7	2	2.574" OD CONS K-INSERT	SS	5				
QUAN.	SIZE	DESCRIPTION			PRICE PER PIECE			
		LABOR			TOTAL PRICE THIS SHEET			

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UM

page 3
NCR 586

Repair Procedure for Elimination
of Surface Defects

On Austenitic Stainless Steel Piping Materials

In accordance with Project Specification 7220-M-204, Paragraph 5.2.1 and ASME Code Paragraph NB-2500 and 2539.6, the following welding repair procedure is defined:

- I. Location: See attached sketch
Size: See attached sketch

- II. Defect Removal:
 - A. Grind out cavity (use wheel suitable for stainless)
 - B. Blend uniformly into surrounding surface
 - C. After defect elimination, the area shall be examined using PT-SR-1,2 Rev. 0 in accordance with Paragraph NB-2546. to assure the defect has been removed or reduced to an acceptable size. Base metal directly adjacent to cavity (within one inch) will be included in this examination.

III. Repair by Welding:

If defect prepared cavity reduces the thickness of the section below the minimum required to satisfy NB-3000, the defect shall be repaired as follows:

- A. Welders qualified in accordance with ASME Section IX for process and thickness of repair weldment.
- B. Utilize welding procedure P8-A Rev. 0 for repair with E308L filler material or as an alternate P8-T-Ag with ER309 filler material.
- C. After repair, the surface shall be blended uniformly into the surrounding surface.
- D. The repaired area will be examined as follows:
 - 1. PT-SR-1,2 Rev. 0 in accordance with Paragraph NB-2546
 - 2. RT-XG-2 Rev. 1 in accordance with paragraph NB-5110 and to the acceptance standards of NB-5320. The penetrometer and acceptance standards for radiographic examination of repair welds shall be based on the section thickness at the repair area.
 - 3. Base metal directly adjacent to the repair (within one inch) will be included in this examination.

page 4 of 13
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12/6/74

E. The following information shall be described in the Certified Material Test Report:

1. Chart showing location and size of the prepared cavity.
2. The welding material designation
3. The welding procedure
4. Heat treatment, if required
5. The examination results, including the radiographic film

Page 1 of 28
NCR 586
9.11.78

BASE MATERIAL REPAIR
MAP
FOR
PIPE SPOOL 2-GCB-006-S613-7

DRAWING: M613 SHT 1

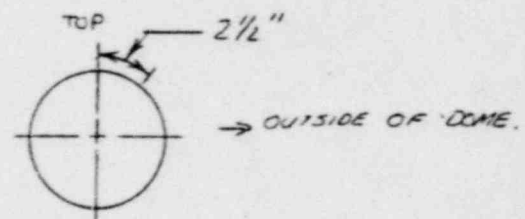
LOCATION: AS SHOWN

DEFECT # 1.

ACTUAL SIZE



LOCATED: 2 1/2" FROM THE NOZZLE END.



DEFECT # 2

ARC STRIKES: BLEND IN ACCORDANCE WITH PARAGRAPH II.

FOSTER CITY - MAIN OFFICE 1118 Chess Drive, Foster City, CA 94404, (415) 573-6000

SAN MATEO OFFICE 145 North Bayshore Blvd., San Mateo, CA 94401, (415) 363-4183

SAN LEANDRO OFFICE 2506 Davis Street, San Leandro, CA 94577, (415) 569-5274

OAKLAND OFFICE 950 - 97th Street, Oakland, CA 94606, (415) 652-1100

Peabody Testing

a division of X-Ray Engineering Company

CERTIFIED REPORT of NONDESTRUCTIVE EXAMINATION

CUSTOMER BECHTEL POWER CORP.		DATE 12-2-76	
ADDRESS MIDLAND NUCLEAR POWER PLANT		CONTROL NO. OR REPORT NO. 21916	
JOB OR PROJECT LOCATION MIDLAND, MICHIGAN		PLAN OR DWG. NO. AA 617-54-1	
SURFACE CONDITION GROUND SMOOTH		HEAT NO. N/A	HEAT TREAT BEFORE AFTER
TYPE OF EXAMINATION UT		EXAMINATION STANDARD R-77	ACCEPTANCE STANDARD SCALE S&T III
		TEMP. OF MAT'L 58°	
		N.D.T. PROCEDURE NO. TPPT-30A-22-13	

ULTRASONIC EXAMINATION

EQUIPMENT	TRANSDUCER	TEST BLOCK	METHOD USED	SCANNING METHOD	SENSITIVITY LEVEL
-----------	------------	------------	-------------	-----------------	-------------------

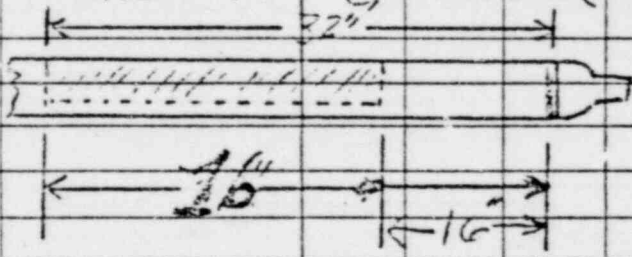
MAGNETIC PARTICLE EXAMINATION

EQUIPMENT	DRY <input type="checkbox"/>	VISIBLE <input type="checkbox"/>	AC <input type="checkbox"/>	DC <input type="checkbox"/>	AMPERAGE	PROD. SPACING	PARTICLES - COLOR
	WET <input type="checkbox"/>	FLOURESCENT <input type="checkbox"/>	RECTIFIED <input type="checkbox"/>			HEAD <input type="checkbox"/>	COIL <input type="checkbox"/>

LIQUID PENETRANT EXAMINATION

METHOD	PENETRANT			CLEANER		EMULSIFIER		DEVELOPER			
	BRAND NO.	BATCH NO.	DWELL TIME	BRAND NO.	BATCH NO.	BRAND NO.	BATCH NO.	EMULS. TIME	BRAND NO.	BATCH NO.	DEV. TIME
											DRY <input type="checkbox"/>
											NON-ADHESIVE <input type="checkbox"/>
PART NO.	TOTAL LENGTH EXAMINED				TYPE OF WORK		NO. OF ITEMS ACCEPTED		NO. OF ITEMS REJECTED		
	FEET		INCHES		NEW <input type="checkbox"/>		REPAIR <input type="checkbox"/>				

C - Cracks P - Porosity NF - Non Fusion LI - Linear Indication S - Slag LA - Lamination OTHER - Specify

PC# OR SN#	ACC	REJ	DEFECT CODE	REMARKS	PC# OR SN#	ACC	REJ	DEFECT CODE	REMARKS
				AFTER DRK STRIKE REMOVED					UPPER SECT. OF PIPE EAST-TOP QUARTER
				(NO WELD METAL ADDED)					

_____ A.M.	_____ A.M.	Technician C. E. Gair	SNT-TC-1A Level II
_____ P.M.	_____ P.M.	Asst. Technician _____	Customer William M. Pender
Total Hours at Jobsite _____	Standby _____	Travel _____	Witnessed by _____
Total Hours _____	Total Mileage _____	ENCLOSURE ADDED Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Page ONE of ONE

PEABODY TESTING, a division of X-Ray Engineering Company assumes no responsibility for losses of any kind due to interpretation.

CERTIFIED REPORT of NONDESTRUCTIVE EXAMINATION

CUSTOMER BECHTEL POWER CORP.		DATE 12-2-76
ADDRESS MIDLAND NUCLEAR POWER PLANT		CONTROL NO. OR REPORT NO. 2195
JOB OR PROJECT LOCATION MIDLAND, MICHIGAN		PLAN OR DWG. NO. M-613-SH-1
SURFACE CONDITION GROUND SMOOTH	HEAT NO. N/A	HEAT TREAT BEFORE <input checked="" type="checkbox"/> AFTER <input type="checkbox"/>
TYPE OF EXAMINATION UT <input type="checkbox"/> MT <input type="checkbox"/> RT <input checked="" type="checkbox"/>	EXAMINATION STANDARD G-27	ACCEPTANCE STANDARD ASME SECT HT
TEMP. OF MAT'L 84°		TEMP. OF MAT'L 215°
N.D.T. PROCEDURE NO. TDPT-300-23-113		

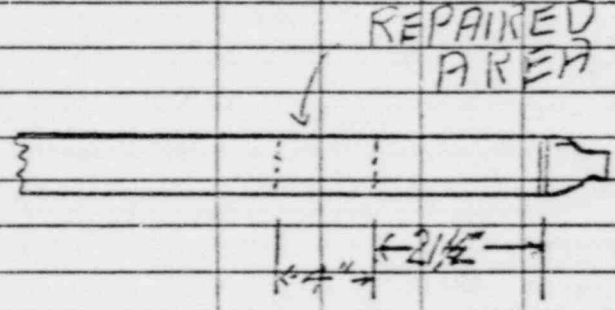
ULTRASONIC EXAMINATION					
EQUIPMENT	TRANSDUCER	TEST BLOCK	METHOD USED	SCANNING METHOD	SENSITIVITY LEVEL

MAGNETIC PARTICLE EXAMINATION					
EQUIPMENT	DRY <input type="checkbox"/>	VISIBLE <input type="checkbox"/>	AC <input type="checkbox"/>	DC <input type="checkbox"/>	AMPERAGE
	WET <input type="checkbox"/>	FLOURESCENT <input type="checkbox"/>		RECTIFIED <input type="checkbox"/>	
					PROD. SPACING
					HEAD <input type="checkbox"/>
					COIL <input type="checkbox"/>
					PARTICLES - COLOR

LIQUID PENETRANT EXAMINATION												
METHOD	PENETRANT			CLEANER			EMULSIFIER			DEVELOPER		
01-REPAIR	BRAND NO.	BATCH NO.	DWELL TIME	BRAND NO.	BATCH NO.	BRAND NO.	BATCH NO.	EMULS. TIME	BRAND NO.	BATCH NO.	DEV. TIME	
	541-S	21113	15 MIN	541-S	21113	SKD-S	AA012	10 MIN				
											DRY <input type="checkbox"/>	
											WET <input checked="" type="checkbox"/>	
											NON-AQUEOUS <input type="checkbox"/>	

DEFECTS CODE	P - Porosity	NF - Non-Fusion	LI - Linear Indication	S - Slag	LA - Lamination	OTHER - Specify
--------------	--------------	-----------------	------------------------	----------	-----------------	-----------------

PC# OR SN#	ACC	REJ	DEFECT CODE	REMARKS	PC# OR SN#	ACC	REJ	DEFECT CODE	REMARKS
				BASE METAL					AFTER REPAIR
				REPAIR					REPAIRED AREA



	A.M.	A.M.	Technician C. E. Gaim	SNT-TC-1A Level II
I N	O U T	P.M.	P.M.	Aist. Technician
Total Hours at Jobsite			Customer William M. Paudelbeck II	
Lunch Standby Travel			Witnessed by	
Total Hours			ENCLOSURE ADDED Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
			SIGNATURE Page ONE of ONE	

PEABODY TESTING, a division of X-Ray Engineering Company
 assumes no responsibility for losses of any kind due to interpretation.

CERTIFIED REPORT of NONDESTRUCTIVE EXAMINATION

CUSTOMER BECHTEL POWER CORP.		DATE 12-2-76	
ADDRESS MIDLAND NUCLEAR POWER PLANT		CONTROL NO. OR REPORT NO. 2194	
JOB OR PROJECT LOCATION MIDLAND, MICHIGAN		P.O. NO. 7220-FSC-206	PLAN OR DWG. NO. IM-613 SH-1
SURFACE CONDITION GROUND SMOOTH	HEAT NO. N/A	HEAT TREAT BEFORE <input checked="" type="checkbox"/> AFTER <input type="checkbox"/>	TEMP. OF MAT'L 58° 2138 #27-77
TYPE OF EXAMINATION UT <input type="checkbox"/> MT <input type="checkbox"/> PT <input checked="" type="checkbox"/>	EXAMINATION STANDARD G 27	ACCEPTANCE STANDARD ASME Sect. III	N.D.T. PROCEDURE NO. IPPT-300-2303

ULTRASONIC EXAMINATION

EQUIPMENT	TRANSDUCER	TEST BLOCK	METHOD USED	SCANNING METHOD	SENSITIVITY LEVEL
-----------	------------	------------	-------------	-----------------	-------------------

MAGNETIC PARTICLE EXAMINATION

EQUIPMENT	DRY <input type="checkbox"/> VISIBLE <input type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> AMPERAGE WET <input type="checkbox"/> FLOURESCENT <input type="checkbox"/> RECTIFIED <input type="checkbox"/>	PROD. SPACING	PARTICLES - COLOR
		HEAD <input type="checkbox"/> COIL <input type="checkbox"/>	

LIQUID PENETRANT EXAMINATION

METHOD	PENETRANT		CLEANER		EMULSIFIER		DEVELOPER				
Color Rainou.	BRAND NO. 562-S	BATCH NO. 4H149	DWELL TIME 15 min	BRAND NO. SKL-S	BATCH NO. 21013	BRAND NO. SKD-S	BATCH NO. 44012	DEV. TIME. 10 min	DRY <input type="checkbox"/> NON- WET <input checked="" type="checkbox"/> AQUEOUS		
PART NO.	TOTAL LENGTH EXAMINED		TYPE OF WORK		NO. OF ITEMS ACCEPTED		NO. OF ITEMS REJECTED				
	FEET		INCHES		NEW <input type="checkbox"/> REPAIR <input type="checkbox"/>						

DEFECTS CODE

Cracks P - Porosity NF - Non-Fusion LI - Linear Indication S - Slag LA - Lamination OTHER - Specify

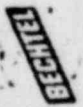
PC# OR SN#	ACC	REJ	DEFECT CODE	REMARKS	PC# OR SN#	ACC	REJ	DEFECT CODE	REMARKS
BASE METAL				BEFORE					
REPAIR	<input checked="" type="checkbox"/>			REPAIR					
EAST									

_____ A.M.	_____ A.M.	Technician C. E. Goin	SNT-TC-1A Level II
I _____ P.M.	_____ P.M.	Asst. Technician	
_____ P.M.	_____ P.M.	Customer William M. Pendergast	
_____	_____	Witnessed by _____	SIGNATURE
_____	_____	ENCLOSURE ADDED Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Page ONE of ONE



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 587	20. Page 1 of 43	
2. Unit(s) Units 1 & 2	3. Drawing/Part No. See Block 16	Rev	4. Item Description Pipe Restraint Embeds	5. Item Location Outside QC Hold Area		
6. P.O. Or Spec No. 7220-F-13637	7. Serial No. Type	8. Replacement Part P/N N/A REV	SER NO.	9. Source Supplier	10. Contractor/Supplier Mississippi Valley Structural Steel	
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER NO. See Block 16		12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC'G <input type="checkbox"/> CONST <input type="checkbox"/> TEST <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD	15. Equip Furnished By	
16. Nonconforming Condition: 1. Bechtel approved Mississippi Valley Structural Steel Drawing F-7220-C233A-13637-MV-2-2 requires full penetration welds with 5/8" fillets between the pedestals and the base plate on type A2 & A2A embeds. Contrary to the above, the pedestal welds on four A2 and one A2A embeds have the full penetration welds, but lack the 5/8" fillets. 2. Cracked weld on embed A1C between pedestals as shown in Attachment A.			24. Disposition Concurrence (2) N/A			
			REWORK	REJECT	REPAIR	
			3) Doc	X(1)		
			PROJECT FIELD ENGINEER DATE 11/24/76			
			PROJECT ENGINEER DATE 11-24-76			
			PROJECT CONSTR QC ENGINEER DATE			
			AUTHORIZED INSPECTOR DATE			
17. Reported By John R. [Signature]	Date 10-29-76	18. Validated By [Signature]	Date 11-4-76	25. Disposition Results Embeds returned to vendor on S/N 7220-2330		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)				
22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING						
1. The A2 & A2A embeds are to be rejected and returned to MVSS.						
2. The "cracked weld" on embed A1C is actually an irregularity which occurred during the partial removal of a run off tab. This weld is not required by design drawings and the irregularity is not a nonconforming item.						
3. The vendor has been requested to furnish the required mill test reports and						
23. Project Engineering Disposition			3) Required documentation received and is acceptable 12-2-76			
			26. QC Approved [Signature] QC ENGINEER DATE 12-2-76			
			AUTHORIZED INSPECTOR DATE			



Block 16 continued

3. Specification G-23, Rev 5, Para 3.4 states in part: "Engineering and quality verification documents shall be submitted to Bechtel in accordance with the provision of Form G-321-D." Contrary to the above, the material as indicated by the identification marks listed in Block 20 (Traceability) of the G-321-D is not traceable to the documentation (mill test reports, magnetic particle inspection report and ultrasonic inspection report) required by the G-321-D.

"Q" number is 1.102. Hold pending final disposition. 5 hold tag(s) applied.

Continued Blocks

Outside QC Hold Area - 4A2-1 A2A; A1C *These samples removed from job site per 5/11/76-2330*
Ncar Fabrication Shop - 1 A1D
Unit II Containment - 1 A1E
Sasac Rd Laydown Area - 1 A1C; 1 A1A
John R. Sligo 11-18-76

Block 22 Continued

verification of complete documentation.

*Next 11/24/76
Request for Flange 11/24/76*

White Copy - Originator
Canary Copy - Field Engineer
Pink Copy - PQAE
Goldenrod Copy - QC



The weld in question is the area circled in the above picture.



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 595	20. Page 1 of 2	
2. Unit(s) 2	3. Drawing/Part No. M617 sh. 8	Rev 4 F/2	4. Item Description Field Weld 14 C1	5. Item Location AUX. #2 595 11' E of 6.9 3' N of C		
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A	9. Source Construction	10. Contractor/Supplier N/A		
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. N/A NO. N/A	12. ASME AUTHORIZED INSPECTION REQ'D <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: Specification G 27, procedure GWS-FM, paragraph 5.5 (b) states "...the cover pass may be welded as a single weave bead provided the pipe wall thick- ness does not exceed a nominal 1-inch and the tie-in to base material on each side of the weld does not exceed a nominal 1/16 inch." Contrary to the above, during final visual inspection of field weld 14C1 (iso. M617 sh. 8), it was noted that the cover pass of the weld varied from 1 1/8" to 1 3/8". This joint configuration should not have had a cover pass greater				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>		
17. Reported By Tom W. Latus 11/10/76		18. Validated By J.R. Barbee 11-10-76		25. Disposition Results No action required Disposition acceptable Tom Latus 12/24/76		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)						
22. <input type="checkbox"/> Field Engineering Disposition <input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING						
Field recommends "Use As Is" since the integrity and mechanical properties of the weld is not affected. Nondestructive examination shall be in accordance with Form 84 - mechanical in spec. 7220-G-27Q, Rev. 3. Field welding engineers and construction superintendents shall be instructed on the requirements of para. 5.5(b) of General Welding Standard GWS-FM in spec. 7220-G-27Q,						
23. Project Engineering Disposition Rev. 3 to prevent recurrence.		J.R. Barbee 11-17-76 D. Williams 11-17-76 R.P. Torres 12/15/76				
Accept "as is." Later revisions to GWS-FM delete this requirement. The properties of the weld are not affected.						
26. QC Acceptance Tom W. Latus 12/24/76		QC ENGINEER D. Williams 1/8/77 AUTHORIZED INSPECTOR				



NONCONFORMANCE REPORT (CONT'D)

Block 16 Continued:

than 1" considering all allowable tolerances.

Hold for Engineering disposition.

"Q" Number 4.174

1 Hold Tag Applied

- White Copy - Originator
- Canary Copy - Field Engineer
- Pink Copy - PQAE
- Goldenrod Copy - QC



NONCONFORMANCE REPORT

1. Project Name Midland Units 1 & 2		Job No. 7220		19. No. 596	20. Page 1 of 67	
2. Unit(s) 2	3. Drawing/Part No. GH-613 sh 1	Rev 0	4. Item Description Pipe Clamp Assemblies	5. Item Location RB Unit 2 Dome		
6. P.O. Or Spec No. 7220-M-106A	7. Serial No. N/A	8. Replacement Part P/N N/A REV	SER NO.	9. Source Supplier Engineering	10. Contractor/Supplier ITT Grinnell, Warren, Ohio	
11. Inspection Criteria <input checked="" type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input checked="" type="checkbox"/> OTHER NO. see block 16		12. ASME AUTHORIZED INSPECTION REQ'D <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD	15. Equip Furnished By	
16. Nonconforming Condition: Figure 295 pipe clamps are specified by the following ITT Grinnell hanger sketches required to complete pipe hanger installations shown on drawing GH 613 sh 1, Rev. 0. sketch 2-613-1-1 Rev. 1, sketch 2-613-1-22 Rev. 1, sketch 2-613-1-23 Rev. 2, sketch 2-613-1-21 Rev. 1			24. Disposition Concurrence N.A. REWORK REJECT REPAIR USE AS IS PMS [Signature] 12/1/76 PROJECT-FIELD ENGINEER DATE PROJECT ENGINEER DATE PROJECT CONSTR QC ENGINEER DATE [Signature] 12-3-76 AUTHORIZED INSPECTOR DATE			
(continued on next page)						
17. Reported By P.M. [Signature] 11-10-76		18. Validated By [Signature] 11-10-76		25. Disposition Results Items inspected, and existing hardware in field is as specified with attached information as per block # 22.		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)		22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING				
The bolt diameters for the 2 1/2 inch, 3 inch, and 6 inch ITT Grinnell figure 295 pipe clamps specified on hanger sketches 2-613-1-1, 2-613-1-21, and 2-613-1-23 respectively are as shown on the attached mailgram (Page 7 of 7). All bolts for the 4 inch figure 295 pipe clamps specified on hanger sketch 2-613-1-22 are of uniform diameter (i.e. dimension "F" shown on page PH-14 of ITT Grinnell catalog PH-76-see page 3, Attached) con't on page 2			23. Project Engineering Disposition Chuck Great 12-6-76			
26. QC Acceptance [Signature] 12-6-76 QC ENGINEER DATE [Signature] 12-6-76 AUTHORIZED INSPECTOR DATE						



NONCONFORMANCE REPORT (CONT'D)

Details of bolt and nut materials sizes and clamp bolt hole sizes are not provided in the references for two of the three fastener connections required on each assembly.

References ITT Grinnell catalog PH-76 (detail fig. 295 PH-14)
ITT Grinnell hanger standards (STD 41 and 41 E)

Reference PSP (7220) SF/PSP-3.2 Rev. 1 Para. 3.1.1.

"Q" Number: 4.131 Open Affected QCIR's P-2.10-613-1
P-2.20-613-1

*4 QC HOLD TAGS APPLIED
(ONE TO EACH SUPPLY HEADER)*

Block 16 continued

The field requests conditional release for all materials which are retrievable after construction completion. Field Engineer is currently evaluating block 22.

Concurrence by

- PFE
- PFQCE
- LQAE
- AI

Approved for T-10
11/20/76
11/12/76
11-15-76

Block 22 con't.

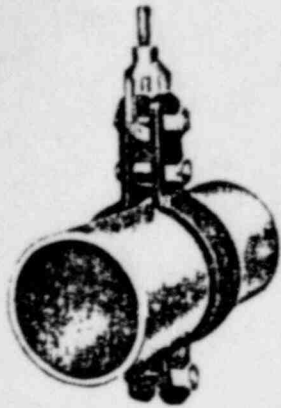
The bolt hole diameter for all clamps is 1/16 inch larger than the diameter of the corresponding bolt for bolts under 1 inch in diameter as required by ASME Section III, Subsection II F. All nuts are sized in accordance with their corresponding bolts. Therefore, this is not a nonconforming condition.

11/29/76
11-29-76
11/29/76

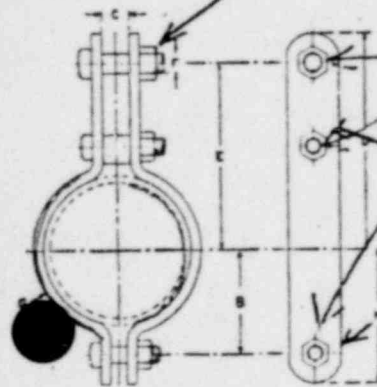
steel pipe clamps

double bolt pipe clamp

fig. 295



*"F" BOLT DIAMETER
NOT SPECIFIED
AS TYPICAL
3 PLACES*



*BOLT NUT
MATERIALS
NOT SPECIFIED*

*BOLT
SIZE*

*NOT
DESIGNATED
O.D./LENGTH*

SIZE RANGE: ¼ through 24 inch.

MATERIAL: Carbon steel.

FINISH: Black or galvanized; furnished black unless otherwise specified.

SERVICE: Recommended for suspension of pipe requiring up to 4 inches of insulation and where flexibility of the clamp is desirable — within the limitation of temperature and loads shown below.

MAXIMUM TEMPERATURE: 750°F.

APPROVALS: Complies with Federal Specification WW-H-171D (Type 3) and Manufacturers Standardization Society SP-69 (Type 3).

INSTALLATION: Attachment to the clamp may be made with a welded eye rod fig. 278, page ph-44, or the weldless eye nut fig. 290, page ph-49.

FEATURES:

- Load bolt and attachment will extend outside of 4 inch thick pipe covering.
- Load ratings meet ANSI code requirements and are substantiated by laboratory test.
- Rounded corners on clamp ends provide greater safety for personnel.

ORDERING: Specify pipe size, figure number, name.

loads • weights • dimensions (inches)

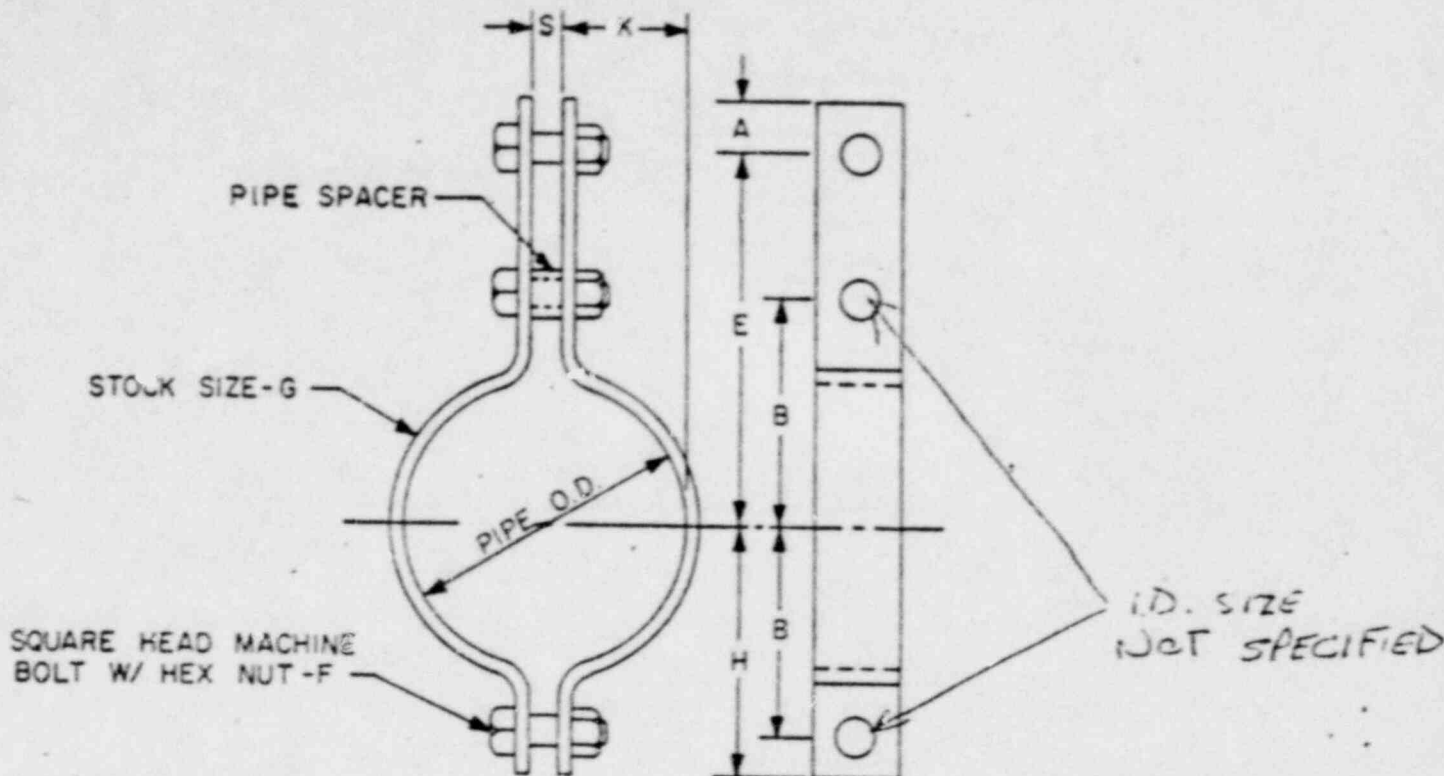
pipe size	max recom load, lb* for service temp		wgt (approx) lb per 100	B	C	D	E	F	G	H
	650°F	750°F								
¾	950	850	70	15/16	¾	2¾	27/16	¾	¾ x 1	1¾
1	950	850	76	17/16	¾	3	29/16	¾	¾ x 1	1½
1¼	950	850	81	1¾	¾	3½	211/16	¾	¾ x 1	111/16
1½	1545	1380	234	113/16	11/16	47/8	41/8	¾	¾ x 1¼	2¾
2	1545	1380	258	21/8	11/16	57/8	51/8	¾	¾ x 1¼	211/16
2½	1545	1380	272	25/16	11/16	61/8	53/8	¾	¾ x 1¼	215/16
3	1545	1380	304	2¾	11/16	611/16	515/16	¾	¾ x 1¼	3½
4	2500	2230	666	3¾	11/16	75/8	61/2	¾	5/16 x 2	4½
5	2500	2230	699	315/16	11/16	81/8	7	¾	5/16 x 2	5
6	2865	2555	1145	4¾	17/16	915/16	83/16	¾	¾ x 2½	61/8
8	2865	2555	1315	5¾	17/16	1015/16	93/16	¾	¾ x 2½	71/8
10	3240	2890	1981	6¾	17/16	12	107/16	1	½ x 2½	81/4
12	3240	2890	2225	7¾	17/16	13	117/16	1	½ x 2½	91/4
14	4300	3835	3768	91/16	2	145/16	1211/16	1¼	¾ x 3	1011/16
16	4300	3835	4137	101/16	2	155/16	1311/16	1¼	¾ x 3	1111/16
18	4300	3835	4487	111/16	2	165/16	1411/16	1¼	¾ x 3	1211/16
20	5490	4900	5725	12¾	2	17½	15¾	1¾	¾ x 3	14
24	4500	4015	6590	14¾	2	19½	17¾	1¾	¾ x 3	16

*Based on the allowable stresses shown in the ANSI Code for Pressure Piping.

ITT GRINNELL CATALOG PH 76 (1976)

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25/1/76



TO ORDER SPECIFY:

Hanger Standard 41 Double Bolt Pipe Clamp, (Material Specification), (Nominal Pipe Size), (Developed Length per Half Clamp), (E, F, G, H, K, & S Dimensions), (Total Weight)**.

*The "B" dimension need not be specified. The manufacturing plant will drill the required hole as close to the curvature of the clamp as possible, allowing a minimum clearance for the nut. If a definite "B" dimension is required, it must be specified.

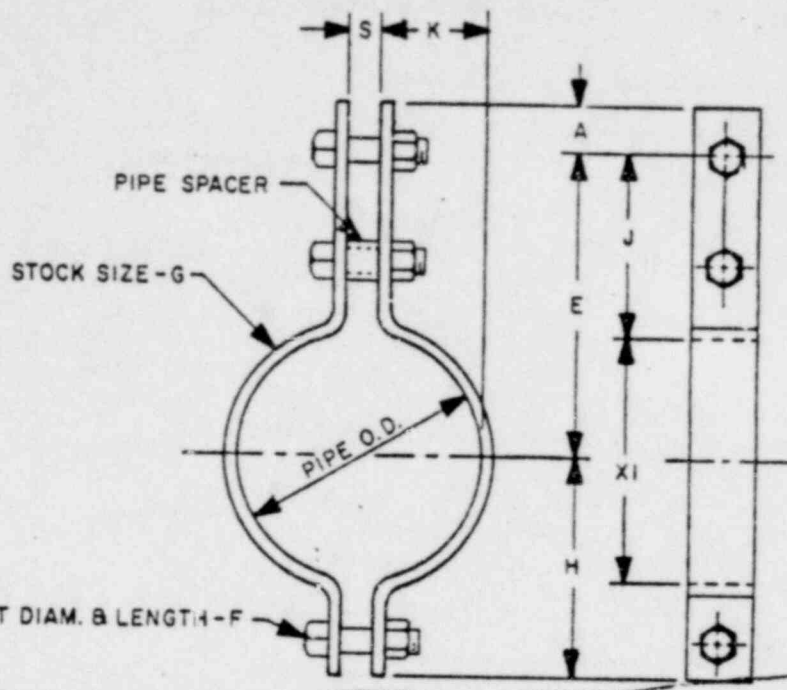
**Weight of required bolts or studs and nuts must be included in the total weight.

Alloy clamps, unless otherwise specified, will be furnished with alloy studs made from ASTM Spec. A-193-B7 stud stock with the center third unthreaded, and hex nuts.

NCR 596 Page 4 of 6.7

ITT GRINNELL CORP. DATE August, 1973 HANGER STD. 41

ITT GRINNELL PIPE HANGER
STANDARDS



SEE NOTES
CHART C

DETERMINE STOCK SIZE - G & BOLT DIAM. FROM PIPE CLAMP DESIGN CHART - C

- A = 2 BOLT DIAM.
- BOLT LENGTH = S + 1 R. TH'KN'S. + 2 BOLT DIA. + .25
- OR
- BOLT LENGTH = S' + 2 R. TH'KN'S. + 1 BOLT DIA. + .25*
- WHICH EVER IS LONGER, SPECIFY BOLT LENGTH TO NEXT GREATER 1/2" LENGTH
- MIN. E = $\frac{X1}{2} + J$
- H = $\frac{X1}{2} + 4 \frac{1}{2}$ BOLT DIAM.
- MIN. J = 5 BOLT DIAM. + 2 R. TH'KN'S.
- X1 = O.D. OF PIPE
- X2 = $\frac{1}{2} (\pi)(X1)$
- K = $\frac{X1 - S}{2}$

* NOTE - FOR STUDS USE
(2 BOLT DIA. + 1/2")

DEVELOPED LENGTH PER HALF CLAMP = (H + E + A + X2 - XI - S)

PIPE SIZE	2	2 1/2	3	3 1/2	4	5	6	8	10	12	14	16	18	20	24	30	36
X1 N.	2.375	2.875	3.5	4.0	4.5	5.563	6.625	8.625	10.75	12.75	14	16	18	20	24	30	36
X2 IN.	3.73	4.516	5.5	6.283	7.07	8.737	10.40	13.55	16.89	20.0	21.99	25.13	28.27	31.42	37.70	47.12	56.54
X2 - XI	1.356	1.64	2.0	2.283	2.57	3.174	3.781	4.92	6.136	7.277	7.99	9.13	10.27	11.42	13.70	17.12	20.54

STANDARD A & S DIMENSIONS (INCHES)

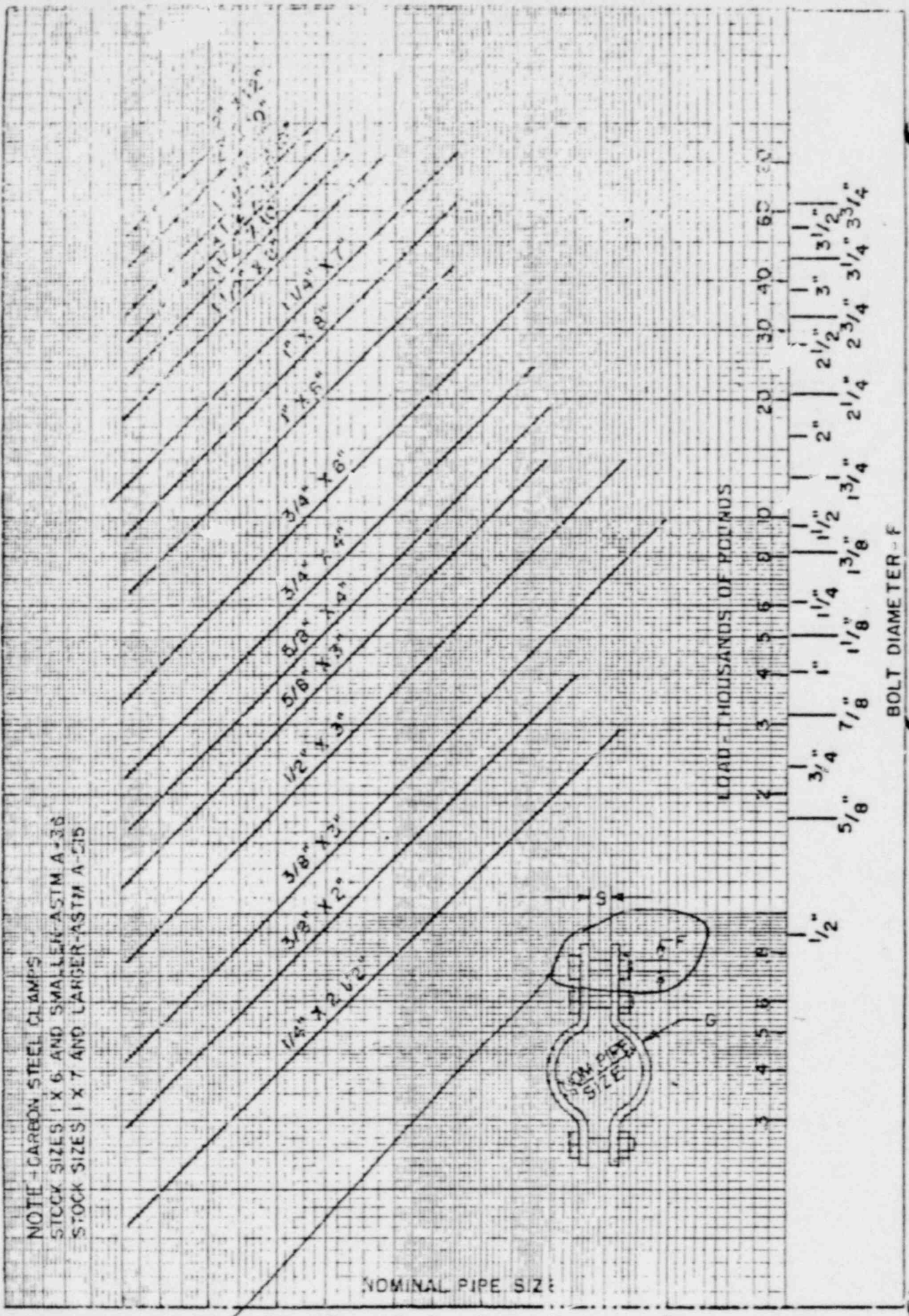
BOLT DIA.	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4
A	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7	7 1/2
S	1	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 1/2	3	3 1/2	4	4 1/4	4 1/2	5	5 1/4	5 1/2	6

TO ORDER SEE HANGER ST'D. - 41

ITT GRINNELL CORP. DATE August, 1973 HANGER STD. 41 E...

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855
10/12



August, 1973

"F" DIMENSION NOT SPECIFIED AS TYPICAL 3 PLACES

CHART-C



1 014718C320 11/15/76 TLX GRINNELL C LSGA
PD PROVIDENCE R I 11-15-76

RECEIVED

NOV 16 1976

BECHTEL POWER CORP.
JOB 7.220

PER-59(2) M-106A

C FROST
BECHTEL POWER CORP
P O BOX 2167
MIDLAND, MICHIGAN 48640

RE: MIDLAND PIPE CLAMPS
BOLT DIAMETERS FOR 2 1/2", 3" AND 6" FIG 295'S ARE AS FOLLOWS

CLAMP SIZE	LOAD BOLTS	CLAMP BOLTS
2 1/2"	5/8"	1/2"
3"	5/8"	1/2"
6"	7/8"	3/4"

BRACERS FOR THESE CLAMPS ARE MADE OF STANDARD WEIGHT PIPE

P STANISH

14:16 EST

MGMCOMP MGM

NCR 596 PAGE 7 OF 7

11/16/76



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 598	20. Page 1 of 2																		
2. Unit(s) 1	3. Drawing/Part No. M610 sht. 7	Rev 4/Fl	4. Item Description Field Weld #10	5. Item Location Aux. Bldg. Et. 595'4"																			
6. P.O. Or Spec No. NA	7. Serial No. NA	8. Replacement Part P/N NA REV NA	SER NO. NA 9. Source Engineering	10. Contractor/Supplier NA																			
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. A/4 NO. WEMC-1 Rev. 1	12. ASME AUTHORIZED INSPECTION RECORD <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC'G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD																	
16. Nonconforming Condition: Bechtel Specification 7220-G-27 Mechanical Form 814 specifies that 10" FCB Class pipe be welded in accordance with Bechtel Welding Procedure P8-AT-Ag Rev. 0. The referenced welding procedure in conjunction with General Welding Standard GWS-SN Rev. 0 specifies ER-308L (bare rod) and E308L (covered electrode) be used for this application. Contrary to the above, Field Welding Engineering discovered that for Field Weld #10 on drawing M610 sht. 7, three electrodes of 3/32" E309L-16 had				24. Disposition Concurrence																			
				REWORK	REJECT	REPAIR	USE AS IS																
				<table border="0"> <tr> <td><i>[Signature]</i></td> <td>12-22-76</td> </tr> <tr> <td>PROJECT FIELD ENGINEER</td> <td>DATE</td> </tr> <tr> <td><i>[Signature]</i></td> <td>12-17-76</td> </tr> <tr> <td>PROJECT ENGINEER</td> <td>DATE</td> </tr> <tr> <td><i>[Signature]</i></td> <td>12-27-76</td> </tr> <tr> <td>PROJECT CONST/QC ENGINEER</td> <td>DATE</td> </tr> <tr> <td><i>[Signature]</i></td> <td>12-24-76</td> </tr> <tr> <td>AUTHORIZED INSPECTOR</td> <td>DATE</td> </tr> </table>				<i>[Signature]</i>	12-22-76	PROJECT FIELD ENGINEER	DATE	<i>[Signature]</i>	12-17-76	PROJECT ENGINEER	DATE	<i>[Signature]</i>	12-27-76	PROJECT CONST/QC ENGINEER	DATE	<i>[Signature]</i>	12-24-76	AUTHORIZED INSPECTOR	DATE
<i>[Signature]</i>	12-22-76																						
PROJECT FIELD ENGINEER	DATE																						
<i>[Signature]</i>	12-17-76																						
PROJECT ENGINEER	DATE																						
<i>[Signature]</i>	12-27-76																						
PROJECT CONST/QC ENGINEER	DATE																						
<i>[Signature]</i>	12-24-76																						
AUTHORIZED INSPECTOR	DATE																						
17. Reported By <i>Douglas Matthews</i>	Date 11-11-76	18. Validated By <i>[Signature]</i>	Date 11-11-76	25. Disposition Results																			
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)				No action required Disposition acceptable <i>[Signature]</i> 12-31-76																			
22. <input type="checkbox"/> Field Engineering Disposition <input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING																							
Field recommends "Use As Is" since the integrity and mechanical properties of the welds are not affected. All welding filler materials conformed to the requirements of Appendix 3 of the BQAM-ASME III, Div. 1 and ASME Section III. ASME Sections III and IX do not require requalification of the welding procedure or the welders when E 309L-16 electrodes are used in lieu of E 308L-16 electrodes. (continued)																							
23. Project Engineering Disposition																							
Accept "as is". Field statement on substitution of 309L for 308L in certain conditions is correct. In addition, while 309L has a lower ferrite requirement than 308L the minimum ferrite is above that required by ASME Section III or the NRC Regulatory Guide.																							
				26. QC Acceptance																			
				<i>[Signature]</i>	12-31-76																		
				QC ENGINEER	DATE																		
				<i>[Signature]</i>	1/3/77																		
				AUTHORIZED INSPECTOR	DATE																		

Block 16 continued

been consumed in welding the cover pass. A check of the electrode warmer by Field Welding Engineering and QC Welding Engineering showed that E308L-16 and E-309L-16 were mixed in the container.

"Q" Number 4.104

4 - hold tag applied *11/16/76*

Hold for Engineering Disposition

Block 16 continued.

A further check of Welding Filler Metal Control records indicate that three (3) Q-listed stainless steel pipe welds could possibly have been made with the wrong filler material.

They are: Field Weld 4 on Dwg. 7220-M-610 Sht. 5

Field Weld 4 on Dwg. 7220-M-610 Sht. 7

Field Weld 24 on Dwg. 7220-M-610 Sht. 7

J. B. Bunker 11/16/76
J. Williams 11-16-76

Block 22 continued: Nondestructive examination shall be in accordance with Form 84-Mechanical in Spec. 7220-G-27Q, Rev. 3.

Austenitic stainless steel electrodes E 308L-16 and E 309L-16 are compatible as paragraph 5.4(m) of General Welding Standard GWS-DM permits either 308L or 309L welding filler material to be used for dissimilar metal welds after buttering the ferritic or martensitic material with 309 welding filler material.

All Field Welding Engineers, Rod Room Attendants, and Q.C. Welding Engineers shall be instructed on proper handling of welding filler materials to prevent recurrence.

J. B. Bunker

11-17-76

J. Williams

11-17-76



TELECOPY

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 602	20. Page 1 of 1		
2. Unit(s) N/A	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Concrete	5. Item Location Aux. Bldg., El. 646'			
6. P-0-0r Spec No. C-230, Rev. 7	7. Serial No. N/A	8. Replacement Part P/N _____ REV _____	SER NO. _____	9. Source Subcontractor	10. Contractor/Supplier Champion, Inc., Midland, MI		
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER NO. C-230, Rev. 7		IR NO. C-1.30-53	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC-G <input type="checkbox"/> CONST <input checked="" type="checkbox"/> TEST <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD	15. Equip Furnished By	
16. Nonconforming Condition: Spec. C-230, Rev. 7, Sec. 11.1 Cold weather concreting, states in part that "when the ambient air temp. is between 31° and 45° and we are placing a mass of concrete using a mix design without flyash, the concrete temp. must be maintained within 40° & 60°." Contrary to the above, the concrete represented by Truck Ticket No. 11449 for concrete placement at A(646)a' at the point of placement had a temperature of 64°F. NCR noted during C. surveillance. Hold for final Engineering Disposition. One Hold Tag Applied.				24. Disposition Concurrence			
				REWORK	REJECT	REPAIR	USE AS IS
				<i>[Signature]</i> 12/15/76 PROJECT FIELD ENGINEER DATE <i>[Signature]</i> 12-2-76 PROJECT ENGINEER DATE <i>[Signature]</i> 12-9-76 PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE			
17. Reported By <i>[Signature]</i>	Date 11/15/76	18. Validated By <i>[Signature]</i>	Date 11-15-76	25. Disposition Results			
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)					
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
Use as is.		<i>[Signature]</i> 11/17/76 <i>[Signature]</i> 11/17/76					
23. Project Engineering Disposition							
The higher placement temperature may tend to increase shrinkage, setting rate and water demand while reducing slump, durability, and strength. The placing temperature for one sample of 64°F in lieu of 60°F maximum allowable in the subject 80 c.y., D-1c pour will have an insignificant effect on the concrete properties. Project Engineering concurs with field recommended disposition to "use as is".							
				26. QC ENGINEER <i>[Signature]</i>	DATE 12/13/76		
				AUTHORIZED INSPECTOR	DATE		

ALD-11/176

[Signature] 12-2-76



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 610	20. Page 1 of 1	
2. Unit(s) Units 1 & 2	3. Drawing/Part No. 7220-C-350	Rev 6	4. Item Description 500 Rail Clamps	5. Item Location Whse #4 QC Hold Area		
6. P.O. or Spec No. 7220-F-16574 Rev 0	7. Serial No. N/A	8. Replacement Part P/N N/A REV _____	9. Source Supplier	10. Contractor/Supplier Wiltse and Co.		
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input checked="" type="checkbox"/> OTHER		IR NO R-1.00-522 NO. IOM BEBC 1077 Rev 1	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC'G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD
16. Nonconforming Condition: Purchase Order 7220-F-16574, Rev 1, Note 1 states: "All material to be ASTM A-36." Contrary to the above, the 500 rail clamps do not meet the chemical requirements of ASTM A-36 steel. Requirements for phosphorus is .04 maximum for A-36. Mill test report states phosphorus to be .044.				24. Disposition Concurrence N/A		
Hold pending final disposition. "Q" number is 1.101. 1 hold tag(s) applied				REWORK <input type="checkbox"/> REJECT <input type="checkbox"/> REPAIR <input type="checkbox"/> USE AS IS <input type="checkbox"/>		
				PROJECT FIELD ENGINEER [Signature] DATE 12/13/76		
				PROJECT ENGINEER [Signature] DATE 12-14-76		
				PROJECT CONSTR QC ENGINEER _____ DATE _____		
				AUTHORIZED INSPECTOR _____ DATE _____		
17. Reported By [Signature]	Date 11-29-76	18. Validated By [Signature]	Date 11-29-76	25. Disposition Results Concure with disposition [Signature] 12-20-76		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)				
22. <input checked="" type="checkbox"/> Field Engineering Disposition		<input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING				
This is not a nonconforming condition. Table 'B' of ASTM Spec A6-72, "General Requirements for delivery of rolled steel plates, shapes, sheet piling and bars for structural use", gives a tolerance of 0.010 over maximum limit for phosphorus content as specified by material designation (A-36).						
[Signature] 12/13/76 [Signature] 12/13/76						
23. Project Engineering Disposition						
26. QC Acceptance [Signature] DATE 12-20-76						
QC ENGINEER _____ DATE _____						
AUTHORIZED INSPECTOR _____ DATE _____						



BLOCK 16 CONTINUED

NONCONFORMANCE REPORT (CONT'D)

PAGE 2 OF 2

14 NCR NO.

611

pulling it in the Eastward direction approx. 4" to 6" to assure connection of rigid restraint number 2GCB-1-7. The drawing does not specify cold springing instructions nor is there authorization from Project Engineering to perform cold springing.

"Q" List No. 4.134 1 Hold Tags Applied.
Hold For Engineering Disposition.

Block 22 continued from page 1.

This operation was observed by R. Legg, Field Engineer; F. Mahala, Q.C. Engineer; Amar Sidhu, Resident Mechanical Engineer.

Based upon the above, there was no cold spring in the pipe during installation. Therefore, this is not a nonconforming condition.

R. Legg 12-6-76
F. Mahala 12-6-76



Corrected Copy

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 621	20. Page 1 of 1	
2. Unit(s) 1 & 2	3. Drawing/Part No. N/A	Rev N/A	4. Item Description C-4 Embeds	5. Item Location Field Storage (Combo Shop)		
6. Spec -Spec No. C-304, Rev.0	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A SER NO. N/A	9. Source Construction	10. Contractor/Supplier N/A		
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER NO. _____		NO. AWS D1.1-72	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD
16. Nonconforming Condition: C-304, Rev. 0, Sec. 6, Para 6.1.2 refers to AWS D1.1-72. AWS D1.1-72, Sec. 3, Subsec. 3.6.3 states criteria for undercuts; also AWS D1.1-72, Sec. 3, Subsec. 3.7.2.4 states criteria for cracks in fillet weld. The following C-4 embeds, identified as Items 1, 2, & 3 have shear connectors (studs) which are fabricated contrary to the above requirements. ¹²⁻¹⁻⁷⁶ 63 QC Hold tags applied. Q-List No. 1.201. Hold for Engineering Disposition. Additional embeds 4, 5, & 6. ¹²⁻⁸⁻⁷⁶			24. Disposition Concurrence			
			REWORK	REJECT	REPAIR	USE AS IS
			<input checked="" type="checkbox"/>			
			PROJECT FIELD ENGINEER		DATE 12/13/76	
			PROJECT ENGINEER		DATE 12-13-76	
			PROJECT CONSTR QC ENGINEER		DATE	
			AUTHORIZED INSPECTOR		DATE	
17. Reported By <i>Don E. Plouman</i>	Date 12-6-76	18. Validated By <i>R. Conxally</i>	Date 12-7-76	25. Disposition Results		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)			DEFECTIVE SHEAR CONNECTORS WERE REMOVED, SURFACE PREPARED, AND STUDS RE-SHOT.			
22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING			Remove the studs with cracks and undercut in excess of 1/32 inch, and rework using welding procedure P1-STUD. Existing studs are not to be re-used.			
23. Project Engineering Disposition			R. Valentine 12-15-76			
			26. QC Acceptance <i>R. Valentine</i> QC ENGINEER			
			DATE 12-15-76			
			AUTHORIZED INSPECTOR		DATE	

UNIVERSITY OF KENT

NONCONFORMANCE REPORT

1. Project Name Midland	Job No. 7220	19. No. 629	20. Page 1 of 1
2. Unit # 7220-C-326	Rev. 3	2. Item location Cont. of Exterior Wall	
3. P.C. or Spec. No. N/A	8. Replacement Part N/A	10. Contractor/Supplier N/A	
11. Inspection Date 12/22/76	12. ASME AUTHORITY N/A	15. Equipment Design N/A	
13. Description of Condition Dwg. 7220-C-326, Rev. 3 shows 5-#11 @ 3 vertical Rebar located to the left side of the Equipment Hatch extending from El. 63215" to El. 64210". Concrete has been installed to El. 64217" and Contrary to the above one of the five bars is a #10. The IQ# Number is 1.103.	14. Drawings N/A	24. Disposition N/A	
16. Hold Tags applied. Hold pending Engineering disposition.	17. Date 12/22/76	25. Disposition Result N/A	
18. Name of Inspector J. J. [Signature]	18. Date 12/22/76	26. Disposition N/A	
19. Name of Engineering Firm [Signature]	19. Date 12/22/76	27. Disposition N/A	
20. Name of Project Engineer [Signature]	20. Date 12/22/76	28. Disposition N/A	
21. Name of Project Inspector [Signature]	21. Date 12/22/76	29. Disposition N/A	
22. Name of Project Supervisor [Signature]	22. Date 12/22/76	30. Disposition N/A	
23. Name of Project Engineer [Signature]	23. Date 12/22/76	31. Disposition N/A	

"AS IS" DISPOSITION IS ACCEPTABLE TO PROJECT ENGINEERING. STRESS INCREASE IN REBAR DUE THIS SMALL REDUCTION OF REINFORCING AREA (ABOUT 4%) IS WITHIN THE RESERVE CAPACITY AVAILABLE AT THIS SECTION.

J. J. [Signature] 12/22/76

APPROVED BY: [Signature] DATE: 12-22-76
 AUTHORIZED INSPECTOR: [Signature] DATE: [Signature]



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 637	20. Page 1 of 2		
2. Unit(s) N/A	3. Drawing/Part No. F-7220-C39-y4-4	Rev 4	4. Item Description Reinforcing Steel	5. Item Location Pond Laydown Area			
6. P.O. or Spec. No. 7220-C39 Rev 10	7. Serial No. See Block 16	8. Replacement Part P/N N/A REV	SER NO.	9. Source Supplier	10. Contractor/Supplier Inland Ryerson Co.		
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. See Block 16 NO. C-39 Rev 8	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC.G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip. Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD	
16. Nonconforming Condition: Bechtel approved Inland Ryerson Drawing 7220-C39-y4-4 indicates reinforcing steel to be fabricated as shown in left column of Page 2. Contrary to the above, the reinforcing steel was fabricated and received as shown in right column of Page 2 of this NCR.				24. Disposition Concurrence N/A			
				REWORK	REJECT	REPAIR	USE AS IS
				PROJECT FIELD ENGINEER DATE <i>[Signature]</i> 12/21/76			
				PROJECT ENGINEER DATE <i>[Signature]</i> 12-21-76			
				PROJECT CONSTR QC ENGINEER DATE			
				AUTHORIZED INSPECTOR DATE			
17. Reported By <i>[Signature]</i>		Date 12-16-76	18. Validated By <i>[Signature]</i>		Date 12-17-76		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)		25. Disposition Results Concur with Field Engineering disposition. <i>[Signature]</i> 12-29-76			
22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING							
Bar sizes as shown on vendor drawing are incorrect. Order was revised to conform to design drawings. Material is correct as fabricated and shipped.							
C-63 (Rev. 2) <i>[Signature]</i> 12/21/76 <i>[Signature]</i> 12-21-76 <i>[Signature]</i> 12-21-76 <i>[Signature]</i> 12-21-76							
23. Project Engineering Disposition							
				26. QC Acceptance <i>[Signature]</i> 12-29-76 QC ENGINEER DATE			
				AUTHORIZED INSPECTOR DATE			

Con't Pg. 2

Block 16 continued

Inspection Record No. R-1.00-507

Inland Ryerson Drawing C39-Y4-4

Pcs	Size	Mk	Ty.	A	B	C
37	8	65	17	5-8	7-9	

Inland Ryerson Part No. 855 Page 6 of 10

Pcs	Size	Mk	Type	A	B	C
37	10	65	17	5-8	7-9	

Inspection Record No. R-1.00-512

Inland Ryerson Drawing C-39-Y4-4

Pcs	Size	Mk	Type	A	B	C
58	4	48	17	1-2	6-7	

Inland Ryerson Part No. 855 Page 1 of 10

Pcs	Size	Mk	Type	A	B	C
58	7	48	17	1-2	6-7	

Inland Ryerson Drawing C-39-Y4-4

Pcs	Size	Mk	Type	A	B	C
37	8	3	17	1-4	7-9	

Inland Ryerson Part No. 855 Page 2 of 10

Pcs	Size	Mk	Type	A	B	C
37	10	3	17	1-10	10-1	

"Q" number is indeterminate. Hold pending final disposition. 3 hold tag(s) applied.



NONCONFORMANCE REPORT

Sent to A.A. 12-8
Corrected Copy

1. Project Name Midland		Job No. 7220		19. No. 612	20. Page 1 of 2	
2. Unit(s) 1&2	3. Drawing/Part No. (Mfg. S/N) M-616 sh 8 (5206.01)	Rev 6/F2	4. Item Description 16-HBC-CK-Z	5. Item Location Aux. Bldg. 584'		
6. P.O. Or Spec No. 7220-M-120-AC	7. Serial No. 3N638	8. Replacement Part P/N N/A REV _____ SER NO. N/A	9. Source Supplier	10. Contractor/Supplier Anchor/Darling Valve Company		
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. P-1.30-616-8 NO. M-204	12. ASME AUTHORIZED INSPECTION REQ'D <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD	
16. Nonconforming Condition: During inprocess inspection of 16"-HBC-CK-Z valve, S/N 3N638, defects were discovered on the outlet side of valve weld prep and 1 3/8" below land of the inside bevel. (See attached NDE Report and sketch) "Q" No. 4.166. 1 Hold Tag Applied. Hold For Engineering Disposition.			24. Disposition Concurrence REWORK <input type="checkbox"/> REJECT <input type="checkbox"/> REPAIR <input checked="" type="checkbox"/> USE AS IS <input type="checkbox"/>			
17. Reported By <i>Michael J. Darling</i> Date 12-1-76			18. Validated By <i>John A. Connolly</i> Date 12-1-76			
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING			25. Disposition Results			
22. <input type="checkbox"/> Field Engineering Disposition <input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Field Engineering recommends "Repair" of the unacceptable linear indications on the weld end preparation. Field Engineering is to contact the Anchor Darling Valve Company and obtain instructions for repair of defects. The rounded indication on the inside weld end transition does not exceed the acceptance standards of ASME Section III and PT-SR-1, 2, Rev. 1. Refer to						
23. Project Engineering Disposition						
			26. QC Acceptance QC ENGINEER _____ DATE _____ AUTHORIZED INSPECTOR _____ DATE _____			

Corrected Copy

D NCR 612
2 of 3 of NCR 612
Page 2 of 3

Number 2203
page 1 of 2

NONDESTRUCTIVE EXAMINATION REPORT

ASME SEC III

Job No. and Project Location <u>7220 Midland, Michigan</u>		Date <u>11-30-76</u>
Surface Condition <u>Machine ground</u>	Time of Examination <u>prior to installation</u>	Iso/Dwg Number <u>NA</u>
Type of Examination PT <input checked="" type="checkbox"/> MT () UT () Other ()	Before PWHT <u>W/A</u> After PWHT <u>W/A</u>	NDE Procedure No. <u>PT-SR-1,2 Rev. 1</u>
Type and Temp. of Material <u>620 F as per BFC M283 call exp. date</u>	Specification Standard <u>G 27</u>	Acceptance Standard <u>ASME SEC. III / PT-SR-1,2 Rev. 1</u>
Defect Code		

C-Cracks P-Porosity NF-Nonfusion S-Slag R-Rounded L-LINEAR Other-Specify

Part or Weld Number	ACC	REJ	Defect Code	Remarks
<u>"Anchor</u>				<u>See # 3N-638</u>
<u>Darling Gate</u>				
<u>Valve (class III)</u>				
<u>ID # 16-HBC-CK-Z</u>				
<u>Outlet side of</u>				
<u>Valve, 1 3/8" below</u>				
<u>band of bevel</u>				
<u>inside, & outside</u>				
<u>outside wall bevel</u>		X	L	<u>two linear indications</u>
<u>inside defect</u>	X		R	<u>less than 1/8"</u>

NOTES: See page # 2 of this report.

Enclosure Added: Yes No ()

Richard E. Smith
Examiner

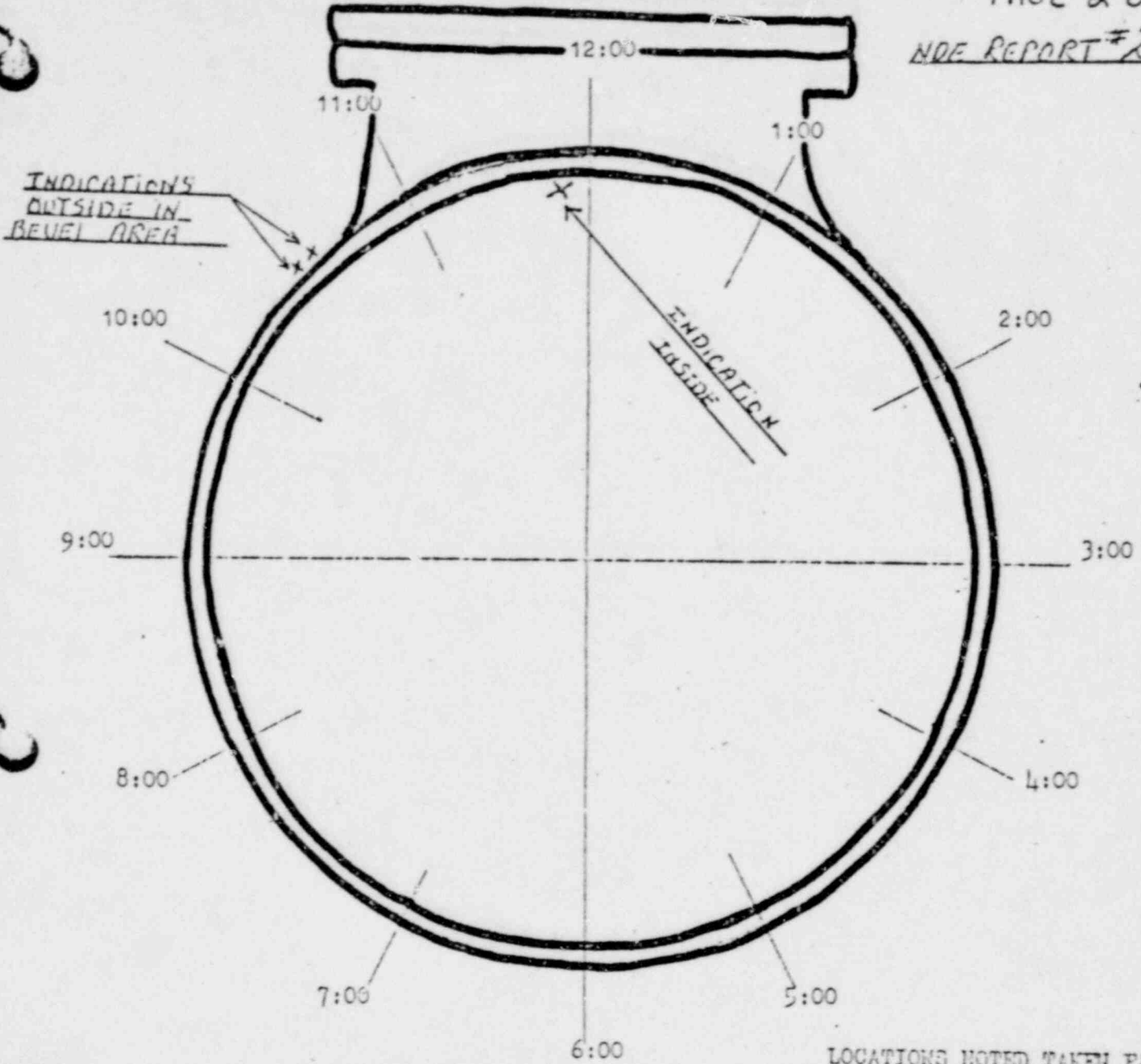
Witnessed by

16" ANCHOR DARLING VALVE

DATE 11-30-76

PAGE 2 OF 2

NDE REPORT #2203



NCR 612 Page 3 of 3

Corrected Copy

LOCATIONS NOTED TAKEN FACING
OUTLET SIDE OF VALVE

AREA #	DISTANCE FROM WELD	LOCATION

PT DONE ON THE BEVEL, LAND & THE AREA 1" BELOW (INSIDE & OUTSIDE) 360°

BECHTEL

NONCONFORMANCE REPORT (CONT'D)

PAGE 4 OF 4

14 NOV 1976 12

Block 22 continued:

nondestructive examination report No. 2203, dated 11/30/76 for the nondestructive examination results. Therefore the rounded indication is not a nonconforming condition.

J. R. Barber 12-13-76
M. Pulite 12-13-76

10098-2

QC-G33

White Copy	-	Originator
Canary Copy	-	Field Engineer
Pink Copy	-	QA/E
Goldenrod Copy	-	QC



NONCONFORMANCE REPORT

017
12-23

1. Project Name Midland Nuclear Power Plant		Job No. 7220		19. No. 613	20. Page 1 of 2
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Compressive Strength Cylinders		5. Item Location On-Site Test Lab
6. P.O. or Spec No. C-208, Rev. 8	7. Serial No. N/A	8. Replacement Part P/N N/A REV _____	SER NO. _____	9. Source Subcontractor	10. Contractor/Supplier United States Testing Company
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. SC/1.05-5 NO. C-208, Rev. 8	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC'G <input checked="" type="checkbox"/> COU'ST <input type="checkbox"/> TEST <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD
16. Nonconforming Condition: Specification C-208, Paragraph 7.3.2 states: "Cylinders shall be made, cured, and tested in accordance with ASTM C-31 and C-39." Further, ASTM C-31, paragraph 7.2 states in part: "During the first 24h after molding, store all test specimens under conditions that maintain the temperature immediately adjacent to the specimens in the range of 60 to 80F." Contrary to this, record cylinder sets listed below did not meet the minimum temperature requirement for initial curing.			24. Disposition Concurrence		
			REWORK	REJECT	REPAIR
			PROJECT FIELD ENGINEER	DATE	
			PROJECT ENGINEER	DATE	
			PROJECT CONSTR QC ENGINEER	DATE	
			AUTHORIZED INSPECTOR	DATE	
17. Reported By <i>Gene H. Yarnall</i>		Date 12/1/76	18. Validated By <i>W. J. Pennington</i>		Date 12-2-76
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)			
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING DISPOSITION REQUESTED BY 1/23/77			
Use as is. Minimal temperature variation will have a negligible effect on the ultimate strength development of the test specimens.					
<i>H. K. Keating 12/23/76</i> <i>W. J. Pennington 12/23/76</i>					
23. Project Engineering Disposition					
26. QC Acceptance					
QC ENGINEER				DATE	
AUTHORIZED INSPECTOR				DATE	

PLACEMENT IDENTIFICATION	SET #	MIX	DATE CAST	INITIAL CURING
A(614)h-3	SP 271 (cube)	D-1 GR	10/22/76	58°- 70°F
A(584.42)a	1156	D-1	11/8/76	58°- 74°F
C(593.5)b	1165	D-1	11/11/76	56°-72°F
C(593.5)b	1167	D-1	11/11/76	56°- 72°F
C(593.5)b	1168	D-1	11/11/76	56°- 72°F

Q-List 1s 6.101. No hold tags applied.



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 614	20. Page 1 of 2
2. Unit(s) II	3. Drawing/Part No. N/A	Rev N/A	4. Item Description 1.) Concrete Temperature 2.) Concrete Air Content 3.) Concrete Slump		5. Item Location Cont. #2 Four No. CC(693.42)a'
6. P.O. or Spec No. C-230, Rev. 8	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A SER NO. N/A		9. Source Subcontractor	10. Contractor/Supplier Champion, Inc.
11. Inspection Criteria <input type="checkbox"/> OWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. C-1.30-87	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC'G <input type="checkbox"/> CONST <input checked="" type="checkbox"/> TEST
15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD					
16. Nonconforming Condition: On 11/24/76, Pour No. CC(693.42)a', the following discrepancies were noted: Item #1 - Para 11.1, C-230, Rev. 8, requires that temperature of mass concrete (ambient temp. 0°F to 30°F) be maintained at 55°F + 10°F. Contrary to this requirement, 8 c.y. of concrete delivered on Ticket No. 11813 had an end of line temperature of 70°F.				24. Disposition Concurrence	
ITEM #2 - Paragraph 9.1.5, C-230, Rev. 8, requires concrete air content, as (CONTINUED ON PAGE 2)				REWORK	USE AS IS
				REJECT	
				REPAIR	
17. Reported By <i>[Signature]</i> Date 1-16/76				25. Disposition Results	
18. Validated By <i>[Signature]</i> Date 12-2-76					
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)					
22. <input type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
23. Project Engineering Disposition					
26. QC Acceptance					
				QC ENGINEER	DATE
				AUTHORIZED INSPECTOR	

measured at the point of placement, shall not be less than 3% nor more than 6%. Contrary to this requirement, 8 c.y. of concrete delivered on Ticket No. 11856 had an air content of 6.4% at the end of line.

ITEM #3 - Paragraph 9.1.2 & 9.1.3, C-230, Rev. 8, requires the slump to have a "working limit" of 3" with an inadvertency margin of 2" and a rejection limit of 5". Contrary to this requirement, 8 c.y. of concrete delivered on Ticket No. 11863 had a measured slump of 7" at end of line.

1 Mold tag applied. Q-List No. 1.105.

White Copy	--	Originator
Canary Copy	--	Field Engineer
Pink Copy	--	PQAE
Goldenrod Copy	--	QC

NONCONFORMANCE REPORT

Log
To 1/4-77

1. Project Name Midland Nuclear Power Plant		Job No. 7220		19. No. 615	20. Page 1 of 2			
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Curing of Compressive Strength Cylinders	5. Item Location On-Site Test Lab				
6. P.O. or Spec No. C-208, Rev. 8	7. Serial No. N/A	8. Replacement Part P/N _____ REV N/A	9. Source Subcontractor	10. Contractor/Supplier United States Testing Company				
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. SC/1.05-6 NO. C-208, Rev. 8	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC'G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD		
16. Nonconforming Condition: Specification C-208, Paragraph 7.3.2 states: "Cylinders shall be made, cured and tested in accordance with ASTM C-31 and C-39." Further, ASTM C-31, paragraph 7.3 states in part: "Remove test specimens from the molds at the end of 20+ 4h and stored in moist condition of 73.4+3F until the moment of test." Contrary to this, there is no documentation that this temperature requirement for curing was adhered to on 11/30/76. Further, the first temperature taken in Tank #4 on 12/1/76 was 68°F, thereby falling below the minimum temperature requirement as				24. Disposition Concurrence				
				REWORK	REJECT	REPAIR	USE AS IS	
				PROJECT FIELD ENGINEER	DATE			
				PROJECT ENGINEER	DATE			
				PROJECT CONSTR QC ENGINEER	DATE			
				AUTHORIZED INSPECTOR	DATE			
17. Reported By <i>[Signature]</i>		Date 12/2/76	18. Validated By <i>[Signature]</i>		Date 12-3-76	25. Disposition Results		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)						
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING						
		<i>Response requested by 1/21/77</i>						
		Use as is. Cylinders will provide the best data available of the concrete represented.						
		The effect of the low temperatures will be to slightly lower the strength developed by the assigned test date. Therefore the cylinders will serve to verify compliance to specification strength requirements. continued on page 3.						
23. Project Engineering Disposition								
							26. QC Acceptance	
							QC ENGINEER	DATE
							AUTHORIZED INSPECTOR	DATE

NONCONFORMANCE REPORT (CONT'D)

BACK #16 CONTINUED:

ed in ASTM C-31. Cylinders being cured in Tank are listed below:
Q-List is 6.101. No hold tags applied.

1848	8285	9149	9201	9254
1849	8286	9150	9202	9258
1854	8291	9151	9203	
1855	8292	9152	9204	
1860	8297	9154	9207	
1861	8298	9155	9208	
		9156	9209	
1932	8614	9158	9210	
1933	8615	9165	9217	
1934	8620	9166	9218	
1935	8626	9167	9219	
	8627	9175	9220	
105		9176	9227	
106	8916	9177	9228	
111	8956	9178	9229	
112	8958	9181	9233	
117		9182	9234	
118		9184	9235	
123		9191	9236	
124		9192	9245	
		9193	9246	
8183		9194	9247	
			9248	
			9251	
			9252	

10088-2

White Copy - Originator
 Canary Copy - Field Engineer
 Pink Copy - PQAE
 Goldenrod Copy - QC

cc

cc

cc

Block 22 continued

Notes: 1) Numbers 105 through 124 are non-Q cylinders cast from samples of concrete from the River Intake Structure. This structure is non-"Q".

2) Cylinder numbers 1848 through 1935 are special sets cast for information only.

3) Cylinders 8285 through 9252 are cylinders required by specification.

1-4-77 H. S. ... 1/4/77

10098-2

White Copy - Originator
Canary Copy - Field Engineer
Pink Copy - PQAE
Goldenrod Copy - QC

QC-G33





NONCONFORMANCE REPORT

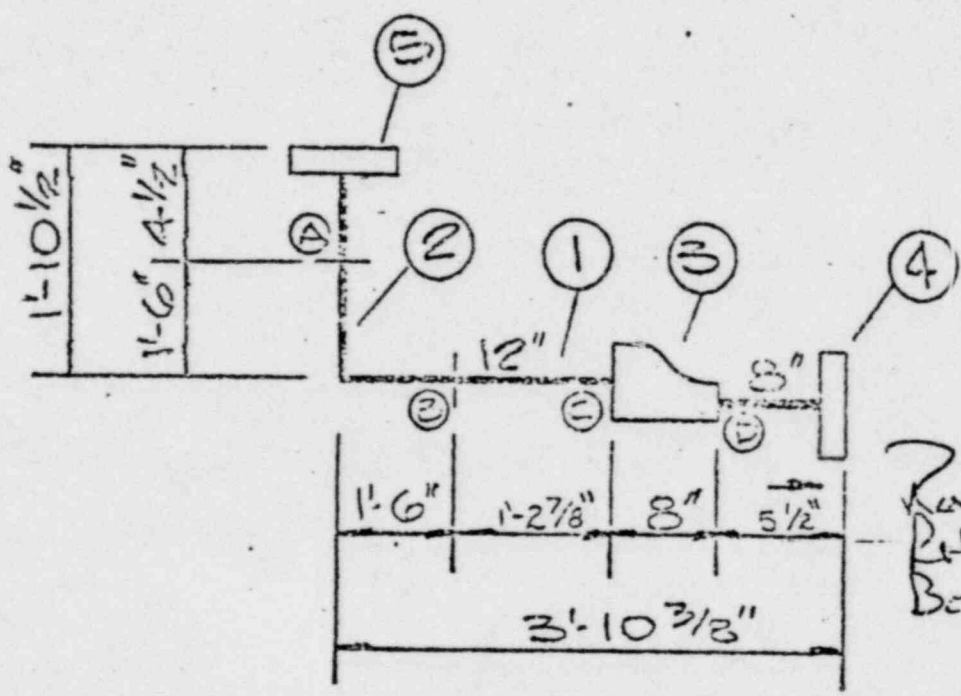
Rec'd 12-29

1. Project Name Midland		Job No. 7220		19. No. 616	20. Page 1 of 1
2. Unit(s) Common	3. Drawing/Part No. 7220 C-248 (Q)	Rev 5	4. Item Description Liner Plate Embeds		5. Item Location Fuel Tilt Pit
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/A REV	SER NO.	9. Source Construction	10. Contractor/Supplier N/A
11. Inspection Criteria <input checked="" type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. N/A NO. C-248, Rev. 5	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
14. Discovered During				15. Equip Furnished By <input type="checkbox"/> REC'G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD	
16. Nonconforming Condition: Dwg. 7220, C-248, Rev. 5, Section E shows Liner Plate Embeds (Verticals) spaced at 4'-0 1/4" C/C. A condition exists in the field at the Fuel Tilt Pit wall located on 5.6 Line; where the Embeds shown in Section E between Elevation 629'-5" & 633'-9 3/8" are 4'-2 1/4" C/C. Embeds are one inch from correct locations. Wall is poured to Elevation 633'-3". NORTH AND SOUTH EMBEDS ARE 1 5/8" AND 3/8" RESPECTIVELY FROM CORRECT LOCATIONS. Q-Listed No. 1.202 1 Hold Tags Applied				24. Disposition Concurrence	
				REWORK	REJECT
				REPAIR	USE AS IS
					X
				PROJECT FIELD ENGINEER J.A. Sullivan	DATE 12-21-76
				PROJECT ENGINEER	DATE
				PROJECT CONSTR QC ENGINEER	DATE
				AUTHORIZED INSPECTOR	DATE
17. Reported By N. Sullivan		Date 12-3-76	18. Validated By M. Alexander		Date 12-3-76
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)			
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING			
Use As Is. Liner Plate dimensions could be adjusted to compensate for the error, or vertical liner plate weld seams could be off set from embed centerlines.					
<p><i>N. Sullivan 12-9-76</i></p> <p><i>Field Eng 12-9-76</i></p>					
23. Project Engineering Disposition					
Engineering concurs with the Field recommendation to "use as is" the vertical embeds at 4'-2 1/4" c/c from elevation 629'-5" to 633'-9 3/8". No safety implications are involved.					
<p><i>J.A. Sullivan 12/21/76</i></p>					
25. Disposition Results				26. QC Acceptance	
				QC ENGINEER	DATE
				AUTHORIZED INSPECTOR	DATE



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 617	20. Page 1 of 3			
2. Unit(s) Unit 1	3. Drawing/Part No. 1 HCB-16-8612-3-3	Rev 0	4. Item Description Shop Fabricated Pipe Spool	5. Item Location Poseyville Laydown Area				
6. P.O. Or Spec No. M-104A Rev 6	7. Serial No. See Block 3	8. Replacement Part P/N 7/A REV _____	SER NO. _____	9. Source Supplier	10. Contractor/Supplier ITT Grinnell, Kernersville, N.C.			
11. Inspection Criteria <input type="checkbox"/> OWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. 0-1 M-100 NO. M-201 Rev 7	12. ASME AUTHORIZED INSPECTION REQ'D <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD		
16. Nonconforming Condition: Purchase Order M-104A, Rev 6, Para 2 of the Engineering Documenta- tion submittal states in part: "All engineering documents marked in Column 4 of Form G-321-D must be submitted for Buyer approval. These engineering documents marked YES in Column 5 require approval prior to commencement of fabrication." Contrary to the above, pipe spool HCB-16-8612-3-3 was delivered as shown in Attachment A where as the approved submittal is Submittal 2 (Attachment B). Hold pending final disposition. "C" number is 4,134. ^{12/2/76} hold tag(s) applied.					24. Disposition Concurrence			
					REWORK	REJECT	REPAIR	USE AS IS
					PROJECT FIELD ENGINEER	DATE		
					PROJECT ENGINEER	DATE		
					PROJECT CONSTR QC ENGINEER	DATE		
					AUTHORIZED INSPECTOR	DATE		
17. Reported By <i>[Signature]</i>	Date 12-2-76	18. Validated By <i>[Signature]</i>	Date 12-2-76	25. Disposition Results				
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY) _____						
22. <input type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING								
23. Project Engineering Disposition								
26. QC Acceptance								
QC ENGINEER					DATE			
AUTHORIZED INSPECTOR					DATE			



Reviewed 5-14-26
 Bowers Coy

Q

37 1/2° BEVEL ENDS

ASME CODE APPROVED

STN. STL.

ASS. <u>NUC. CL. 2</u>	LINE SPEC. <u>1HCB</u>	APP. CODE <u>ASME SECTION</u>	NO. <u>1</u>	REQ'D <u>1</u>
RADIOGRAPHY (RT) <input checked="" type="checkbox"/>	SPECIAL MARKING <input type="checkbox"/>	PREHEAT <input type="checkbox"/>	CERT. OF COMPLIANCE <input type="checkbox"/>	
PARTICLE (MT) <input type="checkbox"/>	SPECIAL CLEANING <input checked="" type="checkbox"/>	HEAT TREAT <input type="checkbox"/>	MILL TEST REPORTS <input checked="" type="checkbox"/>	
TRANT (PT) <input checked="" type="checkbox"/>	PAINTING <input type="checkbox"/>	CODE STAMP <input checked="" type="checkbox"/>	DATA REPORTS <input checked="" type="checkbox"/>	
SYSTEM <u>SPRAY SYS. "A"</u>	FAB. SPECS. <u>FC-350N; SS-KV-19</u>			
DRW'G NO. <u>M-612 SHT. 3</u>	PRESS. <u>150</u> PSI.	TEMP. <u>300</u> F.	WT. <u>370</u> LBS.	
REGISTER <u>MP-60-19</u>	<u>1HCB-16-S-12-3-MP-60-19</u>			<u>3</u>
PC. NO.	SK. NO.			

Tri Grinnell Industrial Piping, Inc.

ORDER OR CONF. NO. 7091
 CONSUMERS POWER COMPANY
 MIDLAND, MICHIGAN

Attachment B
 Submittal 2
 Page 3 of 3
 NCR 617

DEPT _____
 DRW'N WJ CI
 REV. P&C 2/23/74 CI
 REV. _____ CI

DISTRIBUTION

GROUP	REL
UNIT	REL
NO.	REL
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	

M104A-467-2

OCT 2 1974

VENDOR'S DRAWING REVIEW

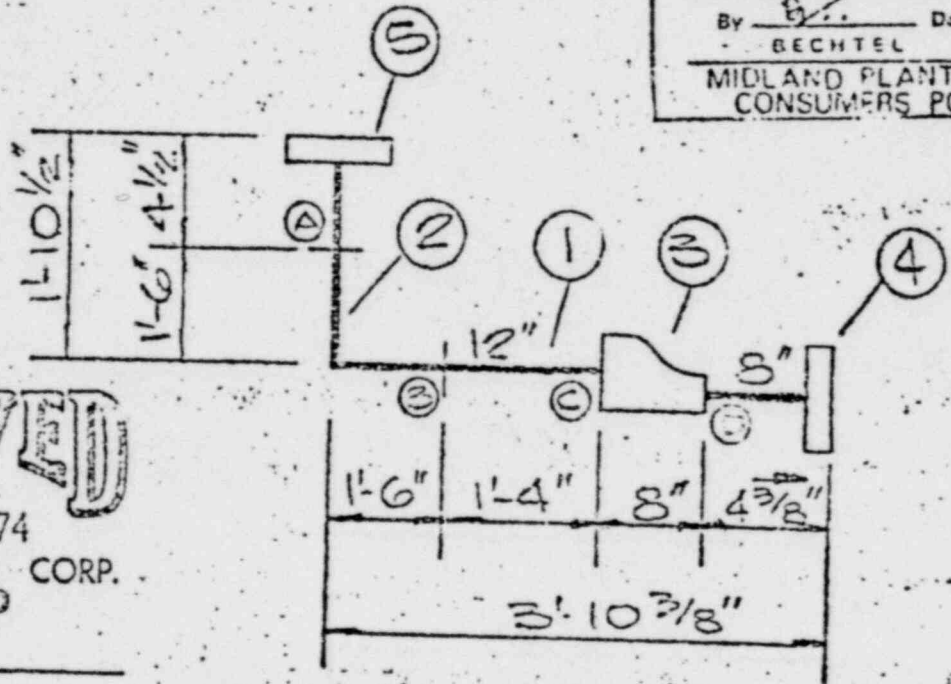
Approved - Mfg. may proceed
 Approved - submit final dwg. Mfg. may proceed.
 Approved except as noted - make changes & submit final dwg. Mfg. may proceed as approved.
 Not Approved - Correct and resubmit
 Rejected - not approved. Mfg. may proceed.

Reviewed: C E L M JOB No. 7220

By: [Signature] Date: 10/1/74

BECHTEL

MIDLAND PLANT UNITS 1&2
 CONSUMERS POWER CO



RECEIVED
 OCT 18 1974
 BECHTEL POWER CORP.
 JOB 7220
 M N

Uncontrolled

ASME CODE APPROVED

STN. STL.

NO. NUG. 2 LINE SPEC. 1HCS APP. CODE ASME S.E.

WELDING (RT) <input checked="" type="checkbox"/>	SPECIAL MARKING	PREHEAT	CERT. C
ARTICLE (MT) <input type="checkbox"/>	SPECIAL CLEANING <input checked="" type="checkbox"/>	HEAT TREAT	MILL TEST
D. PENETRANT (PT) <input checked="" type="checkbox"/>	PAINTING	CODE STAMP <input checked="" type="checkbox"/>	DATA REPT.

SYSTEM SPRAY SVCS. "A" FAB. SPECS. FS-350N, SS-KV-19
 DRW'G NO. M-G12 SAT. 3 PRESS. 150 PSI. TEMP. 200 F. WT. 370



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 618	20. Page 1 of 1	
2. Unit(s) Units 1 & 2	3. Drawing/Part No. 7220-E-20-2	Rev 7	4. Item Description 8 Weld Neck Flanges	5. Item Location Whse #1 QC Hold Area		
6. P.O. Or Spec No. 7220-E-20 Rev 2	7. Serial No. AS 142-1 thru AS 142-8	8. Replacement Part P/N N/A REV	SER NO.	9. Source Supplier	10. Contractor/Supplier Amphenol Sams, Chatsworth, CA.	
11. Inspectic Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. R-1,00-411 NO. E-20 Rev 3	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: Spec 7220-E-20, Rev 4, Para 12.1 states: "Written certification and/or certified test reports shall be submitted as required by form G-321-D." Contrary to the above, we did not receive required documentation listed on G-321-D for 8 weld neck flanges. Hold pending final disposition. "Q" number is 3,002. 2 hold tag(s) applied.				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS Doc. _____ PROJECT FIELD ENGINEER DATE 12/10/76 PROJECT ENGINEER DATE PROJECT CONSTR QC ENGINEER DATE 12-14-76 AUTHORIZED INSPECTOR DATE		
17. Reported By H. Bolen	Date 12-1-76	18. Validated By M. Flannolly	Date 12-1-76	25. Disposition Results		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)		22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Route to Material supervisor who will obtain required documentation. SFD 12-9-76 W. Bolen 12-10-76				
23. Project Engineering Disposition				26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		



NONCONFORMANCE REPORT

1. Project Name Midland			Job No. 7220			19. No. 619	20. Page 1 of 2		
2. Unit(s) Cont. #2	3. Drawing/Part No. N/A		Rev N/A	4. Item Description 1. Concrete Temperature 2. Concrete Slump		5. Item Location Cont. #2 Pour No. CC(640.0)a'			
6. P.O. Or Spec No. C-230, Rev. 8	7. Serial No. N/A	8. Replacement Part P/N N/A REV _____		SER NO. _____	9. Source Subcontractor	10. Contractor/Supplier Champion, Inc.			
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER NO. _____			IR NO. C-1.30-70	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input type="checkbox"/> CONST <input checked="" type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD		
16. Nonconforming Condition: On 12/2/76, Pour No. CC(640.0)a', the following discrepancies were noted: ITEM #1 Spec. C-230, Rev. 8, Para. 11.1 requires that the temperature of mass concrete (ambient temp. 0°F to 30°F) be maintained at 55°F ±10°F. Contrary to this requirement, approximately 4 c.y. of concrete delivered on Ticket No. 11980 had an end of the line temperature of 40°F and approximately 6 c.y. of concrete delivered on Ticket No. 11989 had an end of the line temperature of 68°F. ITEM #2 Spec. C-230, Rev. 8, Para. 9.1.2 & 9.1.3 requires the slump to have a						24. Disposition Concurrence			
						REWORK	REJECT	REPAIR	USE AS IS
						PROJECT FIELD ENGINEER	DATE		
						PROJECT ENGINEER	DATE		
						PROJECT CONSTR QC ENGINEER	DATE		
						AUTHORIZED INSPECTOR	DATE		
17. Reported By <i>Paul Winters</i>			Date <i>12-6-76</i>	18. Validated By <i>A. M. Holly</i>		Date <i>12-6-76</i>		25. Disposition Results	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING				<input type="checkbox"/> TO OTHERS (SPECIFY)					
22. <input type="checkbox"/> Field Engineering Disposition		<input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING							
23. Project Engineering Disposition									
						26. QC Acceptance			
						QC ENGINEER		DATE	
						AUTHORIZED INSPECTOR		DATE	

"working limit" of 3" with an inadvergency margin of 2" and a rejection limit of 5". Contrary to this requirement approximately 4 c.y. of concrete Ticket No. 11979 was placed with a 6" slump. 1 Set of cylinders were made.

Hold for Engineering Disposition. Q-List Number 1.105. One Hold Tag Applied.

White Copy	-	Originator
Canary Copy	-	Field Engineer
Pink Copy	-	PQAE
Goldenrod Copy	-	QC



Corrected Copy

To A² 12-13-76
Sent to AA 12-16-76

NONCONFORMANCE REPORT

1. Project Name Midland Nuclear Project		Job No. 7220			19. No. <u>619 620</u>	20. Page <u>1</u> of <u>1</u>
2. Unit(s) Aux. Bldg.	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Concrete Curing		5. Item Location Slab 10 A(634.5)b	
6. P.O. Or Spec No. C-231, Rev. 9	7. Serial No. N/A	8. Replacement Part P/N <u>N/A</u> REV <u>NO.</u>		9. Source Construction	10. Contractor/Supplier N/A	
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		14. Discovered During <input type="checkbox"/> REC-G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST
15. Equip Furnished By		16. Nonconforming Condition: Spec. C-231, Rev. 9 par. 3.2.4 states in part.... During the curing period, the concrete members shall be adequately protected to maintain concrete surface temperature of no less than 50°F. Contrary to the above, slab 10 in the Aux. Bldg., El. 634'-6" south end between 6.9 & 7.4 lines the temperature dropped below 50°F for approx. 15 hours on 12/4/76 & 7 hours on 12/5/76. "Q" List 1.205. 1 Hold Tag Applied. (40°F was the recorded low temperature.)		24. Disposition Concurrence		15. Equip Furnished By <u>N/A</u>
				REWORK		USE AS IS
				PROJECT FIELD ENGINEER		DATE
				PROJECT ENGINEER		DATE
				PROJECT CONSTR QC ENGINEER		DATE
				AUTHORIZED INSPECTOR		DATE
17. Reported By <i>William Bennett</i>		Date 12/2/76		18. Validated By <i>[Signature]</i>		Date 12-7-76
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)				
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING				
23. Project Engineering Disposition		Use as is. Cure was extended to provide 7 days adequate curing with temperatures above 50° F. The above readings were made with a recording chart thermometer near the south face of the slab. A similar recorder on the west face showed curing temperatures above 50° F throughout the curing period. <i>[Signature]</i>				
		26. QC Acceptance				
		QC ENGINEER				DATE



NONCONFORMANCE REPORT

1. Project Name Midland Project		Job No. 7220		19. No. 622	20. Page 1 of 1	
2. Unit(s) 1 & 2	3. Drawing/Part No. C-233	Rev 5	4. Item Description WF 24 x 94 (13B11N)	5. Item Location Aux. Bldg. Elev. 584'		
6. P.O. Or Spec No. E-304, Rev. 0	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A	SER NO. N/A	9. Source Construction	10. Contractor/Supplier N/A	
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. N/A NO. AISC Feb. 12, '69	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: West end of WF 24 x 94 #13B11N (Location of end @ 5.6 between C & D lines) has a crack in the web @ the re-entrant corner. The crack is completely across the bottom face of the web, and is 1" plus up one side and 1/2" up the other side of the web. One hold tags applied. Q-List #1.201. Hold for Engineering Disposition.				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS REPAIR 12/20/76 PROJECT FIELD ENGINEER DATE 13-21-76 PROJECT ENGINEER DATE PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		
17. Reported By Don E. Plummer	Date 12-6-76	18. Validated By W. M. Kelly	Date 12-7-76	25. Disposition Results		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)		22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING				
The defect mentioned above is not a crack but is a cut, made during fabrication, that extends past the point of tangency of a re-entrant corner. This cut will be repaired in accordance with GWS-Structural, Section 5.5 of Specification G-27, Bechtel's Project Engineering approved General Welding Standards. P. Wilson 12-16-76 Frank G. Geyer 12/20/76						
23. Project Engineering Disposition		26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR DATE				



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 623	20. Page 1 of 1		
2. Unit(s) Unit #1	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Concrete	5. Item Location Cont. #1 Elev. 593' to 607'			
6. P.O. Or Spec No. C-230, Rev. 8	7. Serial No. N/A	8. Replacement Part P/N N/A REV C-1.30-83, C-1.30-54	SER NO. 	9. Source Subcontractor	10. Contractor/Supplier Champion, Inc.		
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. C-230, Rev. 8	ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC'G <input type="checkbox"/> CONST <input checked="" type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD	
16. Nonconforming Condition: Specification C-230, Rev. 8, Table 9.1 states in part; When using a D-1 mix design the slump rejection limit is five inches. Contrary to the above, approx. 1 cubic yard of concrete was placed with a slump of nine inches into concrete placements C(593.5)c & C(607)b'. The remainder of the batch, (7 c.y.) represented by Ticket No. 12013, was rejected. Field cylinders were cast. Hold for Engineering Disposition. 2 Hold Tags Applied. "Q"-List No. 1.105.				24. Disposition Concurrence			
				REWORK	REJECT	REPAIR	USE AS IS
				PROJECT FIELD ENGINEER	DATE		
				PROJECT ENGINEER	DATE		
				PROJECT CONSTR QC ENGINEER	DATE		
				AUTHORIZED INSPECTOR	DATE		
17. Reported By <i>[Signature]</i>	Date 12/7/76	18. Validated By <i>[Signature]</i>	Date 12-7-X	25. Disposition Results			
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)					
22. <input type="checkbox"/> Field Engineering Disposition		<input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
23. Project Engineering Disposition							
				26. QC Acceptance			
				QC ENGINEER	DATE		
				AUTHORIZED INSPECTOR	DATE		



NONCONFORMANCE REPORT

To AA 12-22-76

1. Project Name Midland		Job No. 7220		19. No. 624	20. Page 1 of 3	
2. Unit(s) Units 1 & 2	3. Drawing/Part No. N/A	Rev N/A	4. Item Description 2 10" Lamons Spiral-Wound Asbestos Gaskets	5. Item Location Whse #1 QC Hold Area		
6. P.O. or Spec No. 7220-M104A Rev 6	7. Serial No. N/A	8. Replacement Part P/N N/A REV	SER NO.	9. Source Supplier	10. Contractor/Supplier ITT Grinnell, Kernersville, N.C.	
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. R-1.00-566	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: 1. Spec 7220-M-481, Rev 9, Piping Class Sheets require that Flexitallic style R3, R4 or CG Gaskets be used for all flanged joints where a spiral-wound asbestos gasket is required. Contrary to the above, Lamons WR gaskets were received as listed on Attachment "A". 2. It is indeterminate as to what documentation is required for gaskets. 3. Spec 7220-M-481, Rev 7, General Note 4 states: "All Flexitallic Gaskets are to			24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS PROJECT FIELD ENGINEER DATE PROJECT ENGINEER DATE PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE			
17. Reported By <i>Helen Boleen</i>	Date 12-8-76	18. Validated By <i>Annally</i>	Date 12-9-76	25. Disposition Results		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)				
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING DISPOSITION REQUESTED BY 1-3-77				
1) Engineering is to confirm whether lamon WR gaskets are an acceptable substitute for flexitallic style R-3, R4 or CG gaskets. If so, Specification 7220-M-481 should reflect this.						
2) Engineering is to specify documentation (con'td on page 2 of 3).						
23. Project Engineering Disposition						
26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR DATE						

Con't Pg. 2

Block 16 continued

be constructed of standard materials which are 304 stainless steel and blue-dyed Canadian (chrysotile) asbestos paper fillers and shall contain a maximum of 200 ppm leachable chlorides." Contrary to the above, the Certificate of Compliance did not state that the material used were 304 stainless steel and blue Canadian asbestos filler.

"Q" number is indeterminate. Hold pending final disposition. 1 hold tag(s) applied.

Block 22 Continued

requirements for gaskets. The G-321-D used for gaskets is the same G-321D used for fabricated piping, and documentation requirements are indeterminate.

3) If engineering approves lamons WR gaskets as an acceptable substitute for flexitallic, specification 7220-M-401 note 4 should reflect this. The field procurement supervisor will obtain a certificate of compliance in accordance with the revised note 4.

George G. Butler 12-21-76
J.K. Pulite 12-22-76

SHOP WORK ORDER



CAROLINA GASKET & RUBBER CO., INC.

U.S. 29 NORTH • P. O. DRAWER A 2 • GREENSBORO, N. C. 27402 • PHONE (919) 621-4568
MANUFACTURERS OF GASKETS

PACKING
LIST

S
O
L
D
T
O

ITT Grinnell Industrial
Piping Inc.
Box 566
Kernersville, N.C. 27284

S
H
I
P
T
O

Bechtel Power Co.
% Consumer Power Co.
Box 2167
Midland, Mich. 48640
Attachment "A"
NCR 624 Page 3 of 3

DATE ENTERED	CUST. ORDER NO.	SHIP VIA	SHIPPING
11-30-76	KER-4797	Air PP SD	11-30-76 sure Jim

QUANTITY ORDERED	QUANTITY THIS SHIPMENT	BACK ORDERED	ITEM NO.	DESCRIPTION
2	(2)	0	1	10" spiral wound WR gaskets, 150#

VENDOR _____

P.O. NO. _____ MRR NO. _____

MRR NO. _____ DATE REC'D. 12/2/76

Airmail FRGT. NO. _____

CHECKED BY [Signature]

FIELD INSPECTION BY _____

PARTIAL COMPLETE

STORAGE _____

NOTICE: INSPECT IMMEDIATELY. All claims must be made in 10 days.

No material will be accepted for credit without written permission from CAROLINA GASKET & RUBBER CO., INC.

1. Project Name Midland		Job No. 7220		19. No. 625	20. Page 1 of 5	
2. Unit(s) Units 1 & 2	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Spiral-Wound Asbestos Gaskets	5. Item Location Whse #1 QC Hold Area		
6. P.O. Or Spec No. 7220-M-104A Rev 6	7. Serial No. See Block 16	8. Replacement Part P/N N/A REV	9. Source Supplier	10. Contractor/Supplier ITT Grinnell		
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. R-1,00-497 NO. M-201 Rev 7	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC'G <input type="checkbox"/> CONST <input type="checkbox"/> TEST <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD	
16. Nonconforming Condition:				24. Disposition Concurrence		
1. Spec 7220-M-481, Rev 9, Piping Class Sheets require that Flexitallic style R3, R4 or CG Gaskets be used for all flanged joints where a spiral-wound asbestos gasket is required. Contrary to the above, spiraltallic style 913 gaskets were received as listed on Attachment "A".				REWORK		
2. It is indeterminate as to what documentation is required for gaskets.				REJECT		
3. Spec 7220-M-481, Rev 7, General Note 4 states: "All Flexitallic Gaskets are to be				REPAIR		
Con't Pg. 2				USE AS IS		
17. Reported By <i>Robert Bolen</i>		Date 12-8-76	18. Validated By <i>R. J. Rosencly</i>		Date 12-8-76	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)				
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING <i>Disposition requested by 1-3-77</i>				
1) Engineering is to confirm whether spiraltallic style 913 gaskets are an acceptable substitute for flexitallic style R3, R4 or CG gaskets. If so, Specification 7220-M-481 should reflect this.						
2) Engineering is to specify documentation (Con't on page 2 of 5.)						
23. Project Engineering Disposition						
26. QC Acceptance						
				QC ENGINEER	DATE	
				AUTHORIZED INSPECTOR	DATE	

Block 16 continued

constructed of standard material which are 304 stainless steel and blue-dyed Canadian (chrysotile) asbestos paper fillers, and shall contain a maximum of 200 ppm leachable chlorides." Contrary to the above, the Certificate of Compliance did not state that the materials used were 304 stainless steel and blue Canadian asbestos filler.

"Q" number is indeterminate. Hold pending final disposition. 1 hold tag(s) applied.

Block 22 continued.

requirements for gaskets. The G-321-D used for gaskets is the same G-321-D used for fabricated piping, and documentation requirements are indeterminate.

3) If engineering approves spiraltallic gaskets as an acceptable substitute for flexitallic, spec.

7220-11-421 note 4 should reflect this. The field procurement supervisor will obtain a certificate of compliance in accordance with the revised note 4.

George G. Ruttle 12-21-76
J. P. White 12-22-76

SOLD TO:

ITT Grinnell Industrial Piping
P.O. Box 566
Kernersville, N.C. 27284

SHIP TO:

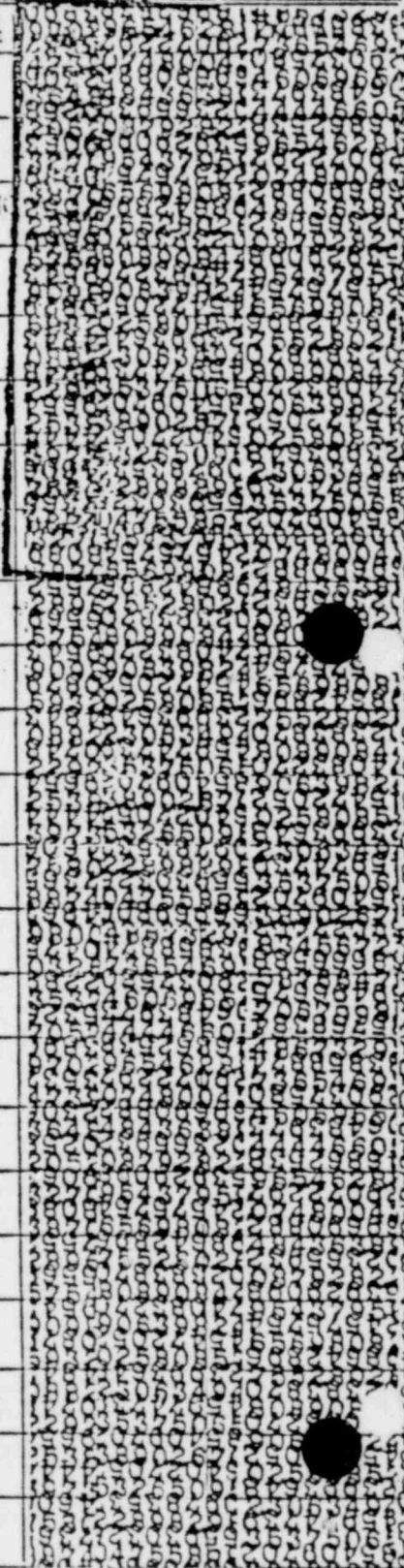
INVOICE DATE
Bechtel Power Corp.
c/o Consumers Power Co.
Midland, Mich
Attn: Q.A. Engineer
Attachment "A" Page 1 of 3
NCR 625 Page 3 of 5

SHIPPED FROM II- 72-90741 Q VIA DATE SHIPPED

DATE 8-13-76 CUSTOMER'S ORDER NO. KER 3734 B. O. NO. PREV. NO.

QUANTITY ORDERED	QUANTITY SHIPPED	Net S.P.	DESCRIPTION	UNIT CODE
			ALL CERTIFICATES OF COMPLIANCE ARE REQUIRED TO BE COMPLETE, CLEAR AND REPRODUCIBLE, AND SHALL BE SENT TO THE PURCHASING DEPT., ITT GRINNELL INDUSTRIAL PIPING INC. P.O. BOX 566, KERNERSVILLE, NC 27284 WITH THE EXCEPTION OF ONE COPY TO ACCOMPANY SHIPMENTS	
			NO SHIPMENTS BY PARCEL POST OR UPS UNLESS WRITTEN AUTHORIZATION IS GIVEN	
			Field list #7029	
			MR 7029-1	
2		30"	150# spiraltallic style	
			RF gasket	E
			MR 7029-2	
6		20" 3-3	150# spiraltallic style	
			RF gaskets	E
			MR 7029-3	
4		10" 300	150# spiraltallic style	
			RF gaskets	E
			Tag above:	
			1) HBC 2) PM 619 sht #4 rev 4	
			Field list #7031	
			MR 7031-1	
2		30"	150# spiraltallic style	
			RF gaskets	E

NUCLEAR





DIVISION OF HAJUCK CORPORATION
 DIAL 242-4540 P. O. BOX 2866
 GREENVILLE, SOUTH CAROLINA 29602

64161
 PAGE NO. 2 0

INVOICE DATE

OLD TO: ITT Grinnell Industrial Piping

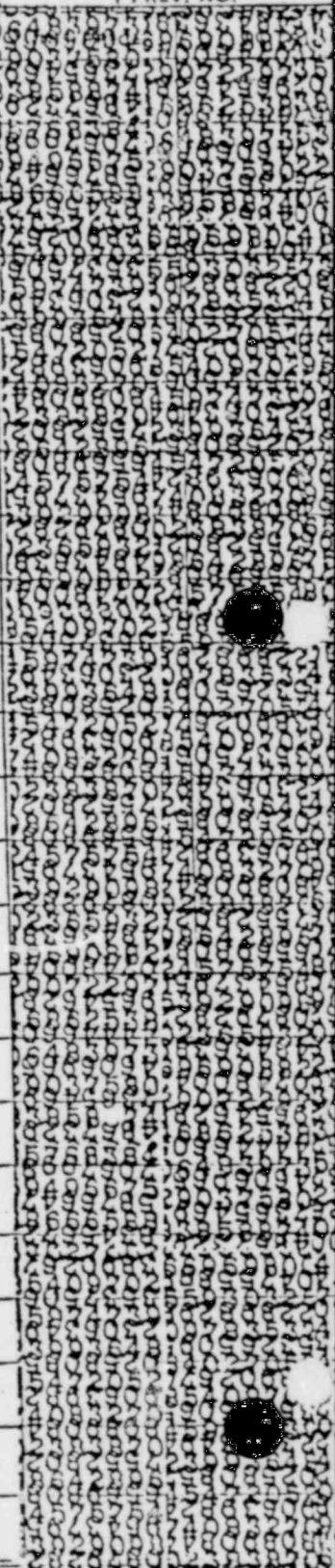
SHIP TO: Mechtel Power Corp.

Attachment "A" Page 2 of 5
 NCR 625 Page 4 of 5

SHIPPED FROM _____ VIA _____ DATE SHIPPED _____
 CUSTOMER'S ORDER NO. _____ B O NO. _____ PREV. NO. _____

QUANTITY		DESCRIPTION	UNIT CODE
ORDERED	SHIPPED		
		MR 7031-2	
6	①	20" ³⁻³ 150# spiraltallic style RF gaskets	E
		MR 7031-3	
4	①	10" 300# spiraltallic style RF gaskets	E
		1) HBC 2) PM 619 sht #5 rev. 5 Field list #7032	
		MR 7032-1	
2		30" 150# spiraltallic style RF gaskets	E
		MR- 7032-2	
6	①	20" ³⁻³ 150# spiraltallic style RF gaskets	E
		MR 7032-3	
4	①	10" 300# spiraltallic style RF gaskets	E
		Tag the above:	
		1) HBC 2) PM 619 sht #7 rev 3 ASME Sect. III Class 3 The above must comply with spec sheet	
		MP 005 rev 0 8/29/87 75	
		Vendor must su-ply G-321D form with proper docentation with material shipped	

APPROVED
 DATE: 1/5-76





DIAL 242-4540

P. O. BOX 2886

GREENVILLE, SOUTH CAROLINA 29602

PAGE NO.

433475

INVOICE DATE

SOLD TO:

ITT Grinnell Industrial Piping, Inc.
P. O. Box 566
Kernersville, N. C. 27284

SHIP TO:

Bechtel Power Corp.
c/o Consumer Power Co
Midland, Michigan
Attn: Q. A. Engineer

7206

Attachment "A" Page 3 of 3
NCR 029 Page 5 of 5

SHIPPED FROM **II-72-903990** VIA _____ DATE SHIPPED _____
DATE **10-13-76** CUSTOMER'S ORDER NO. **KER 3792** B. O. NO. _____ PREV. NO. **65736**

QUANTITY ORDERED _____ SHIPPED _____
Net 30 SP DESCRIPTION UNIT CODE

THIS MATERIAL IS SUBJECT TO EXPEDITING AND INSPECTING BY ITT GRINNELL INDUSTRIAL PIPING INC. TEN DAYS PRIOR TO PERFORMING TEST & NOTIFY EMIL JOHNSON OR DON BREWER. TEL: -993-4831. ONLY ITT GRINNELL Q.A. CAN REL MATERIAL FOR SHIPMENT.

Field List #7050 MR 7050-2

13

4" 300# Spiraltallic style
RF gaskets E

THE MATERIAL MUST COMPLY WITH THE FOLLOWING SPEC. SHEET:

MP 001 rev. 0 (Nuc. Class 2 only)
MP 003 rev. 0 8-29-76
MP 006 rev. 0 8-29-76
1) HCB 2) PM 604 Sheet 5, Rev. 2

Must supply G-321D form with proper documentation for material shipped.

VENDOR _____

P.O. NO. _____ MFR NO. _____

MRR NO. _____ DATE REC'D. _____

VIA _____ FRGT. NO. _____

CHECKED BY _____

FIELD INSPECTION 3.

PARTIAL COMPLETE

STORAGE _____

QC APPROVED

NUCLEAR

BY: *[Signature]*

DATE: *11-5-76*

NONCONFORMANCE REPORT

To 12-14-77

1. Project Name Midland		Job No. 7220			19. No. 626	20. Page 1 of 1		
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Admixture Batching Tolerances		5. Item Location Pour # Y(590)a			
6. P.O. Or Spec No. C-230, Rev. 8	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A SER NO. N/A		9. Source Subcontractor	10. Contractor/Supplier Champion, Inc.			
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IN NO. C-1.30-26 NO. C-230, Rev. 8	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD	
16. Nonconforming Condition: A review of the Batch Plant Tickets for placement Y(590)a of 12/7/76 turned up the following contradiction. Section 9.2.1 of Spec. C-230, Rev. 8 requires that all concrete materials be measured in accordance with ASTM C-94-72, which states in part that powdered admixtures weighing accuracy shall be +3% of the design weight. Contrary to this, Batch Ticket #12039 representing approximately 8 c.y. of concrete was placed with the flyash content 3.2 pounds over the max. allowable weight. "Q" List number is 1.105. 1 Hold tag applied. Hold for Eng. Disp.					24. Disposition Concurrence			
					REWORK	REJECT	REPAIR	USE AS IS
					PROJECT FIELD ENGINEER	DATE		
					PROJECT ENGINEER	DATE		
					PROJECT CONSTR QC ENGINEER	DATE		
					AUTHORIZED INSPECTOR	DATE		
17. Reported By Paul Underwood	Date 12-8-76	18. Validated By K.L. K... ..		Date 12-9-76	25. Disposition Results			
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)						
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Disposition requested by 2/9/77						
Use as is. <i>K.L. K... .. 12-14-77</i>								
23. Project Engineering Disposition								
26. QC Acceptance								
					QC ENGINEER	DATE		
					AUTHORIZED INSPECTOR	DATE		



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 627	20. Page 1 of 24	
2. Unit(s) Auxiliary Bldg	3. Drawing/Part No. See Block 16	Rev N/A	4. Item Description Structural Steel - Beams	5. Item Location Outside QC Hold Area		
6. P.O. Or Spec No. 7220-C-38AC Rev 8	7. Serial No. See Block 16	8. Replacement Part P/N N/A REV	9. Source Supplier	10. Contractor/Supplier Ingalls Iron Works		
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. R-1.00-480 C-38 Rev 7	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: American Welding Standard D1.1.72, Section 3, Para 3.2.4 states: "Re-entrant corners, except for the corners of weld access cope holes adjacent to a flange, shall be filleted to a radius of not less than 1/2 in. for buildings and tubular structures and 3/4 in. for bridges. The fillet and its adjacent cuts shall meet without offset or cutting past the point of tangency." Contrary to the above, Beams 342B13D, 342B19D, 342B37D, 342B38D, 342B39D, 342B42D, 342B44D and 454B5E have copes				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS 572		
				<p><i>[Signature]</i> 12/29/76 PROJECT FIELD ENGINEER DATE</p> <p><i>[Signature]</i> 12-23-76 PROJECT CONSTR QC ENGINEER DATE</p> <p><i>[Signature]</i> AUTHORIZED INSPECTOR DATE</p>		
17. Reported By <i>[Signature]</i>		Date 12-8-76	18. Validated By <i>[Signature]</i>		Date 12-9-76	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)				
22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING						
The cuts as mentioned will be repaired in accordance with GWS-Structural, Section 5.5, of Specification G-27, Bechtel's Project Engineering approved General Welding Standards. For minor cuts, if after defect is removed and the re-entrant corner is in accordance with Bechtel InterOffice Memo BEBC-1243, welding need not be done.						
23. Project Engineering Disposition <i>[Signature]</i> 12/10/76 <i>[Signature]</i> 12-16-76						
26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR DATE						

Con't Pg. 2

REC-1

130/147

NONCONFORMANCE REPORT (CONT'D)

1. PAGE 2 OF 4

627

14. NCR

Block 16 continued

that are cut past the point of tangency.

"Q" number is 1.201. Hold pending final disposition. 8 hold tag(s) applied.

10098-2

QC-G-3-3

- White Copy - Originator
- Canary Copy - Field Engineer
- Pink Copy - P.C.A.E
- Goldenrod Copy - QC

Inter-office Memorandum

TELECOPY

BEBC-1243

To J. F. Newgen

Subject Midland Plant Units 1 & 2
Job 7220
C-38 Work - Auxiliary Bldg.
Structural Steel

Copies to File: 0274, C-2300, C-38 PR

Date October 6, 1976

From R. L. Castleberry

Of Engineering

At Ann Arbor

RECEIVED

J. Connolly
V. Verma
A. Desai

Larry Weber

Reference: TWX from J. Newgen to R. L. Castleberry dated 9-30-76.

Requirement of at least 1/2" radius at re-entrant corners per Section 1.23.2 of AISC specifications, is primarily to avoid concentration of stresses at corners which are subjected to substantial stresses. Flange or web copes provided at the ends of simply supported beams, without the minimum 1/2" radius, will not result in overstressing of beam or the end connection. Also please see the attached copy of Ingalls' telegram regarding the above subject.

Engineering asserts that the reported variation in radius, at the beam copes, is acceptable.

J. E. Hinde
for R. L. Castleberry

JA/sg

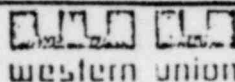
Attachment

NO.	DATE	DESCRIPTION	INITIALS
109 7228		WORKING	
FC		MEMO	
E		SHIP	
P		F. ENGR	
...

fd
1-20-5

NEW CITY STEEL CORP GJE
5415 SOUTH CLAREMONT
CHICAGO IL 60604

Attachment To NCR-627



western union Mailgram



24 34533E278002 10/04/76 ICS IPMRRGZ CSP DETH
3124345400 MGM TOWN CHICAGO IL 10-04 0303P EST

FILE:- C-2300

Xc:- C-38 PR

JACK ARORA
BECHTEL POWER CORP REPORT DELIVERY BY MAILGRAM
PO BOX 1000
ANN ARBOR MI 48106

THIS IS A CONFIRMATION COPY OF A PREVIOUSLY PHONE-DELIVERED TELEGRAM
REFERENCE CONSUMERS POWER COMPANY MIDLAND MICHIGAN PROJECT
#7220-C-38-AC

REPORTED VARIATIONS IN RADII FOR BEAM WEB COPES DO NOT EFFECT THE
STRENGTH OF THE END CONNECTION OF BEAM WEBS DUE TO AMPLE BEAM WEB
THICKNESSES

NEW CITY STEEL CORP H H PAVLAK JR (5415 SOUTH CLAREMONT CHICAGO
60604)

15:03 EST

MGM CORP MGM

Handwritten initials and markings at the bottom right corner.



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 628	20. Page 1 of 2		
2. Unit(s) Unit 1	3. Drawing/Part No. See Block 16	Rev N/A	4. Item Description Structural Steel Beams	5. Item Location Outside GC Hold Area			
6. P.O. Or Spec No. 7220-C-38 Rev 8	7. Serial No. See Block 16	8. Replacement Part P/N N/A REV _____	9. Source Vendor	10. Contractor/Supplier Ingalls Steel/New City Steel Corp., Chicago, Illinois			
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER NO. C-38 Rev 7		IR NO. R-1,00-516	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During		
16. Nonconforming Condition: American Welding Standard D1.1.72, Section 3, Para 3.2.4 states: "Re-entrant corners, except for the corners of weld access cope holes adjacent to a flange, shall be filletted to a radius of not less than 1/2 in. for buildings and tubular structures and 3/4 in. for bridges. The fillet and its adjacent cuts shall meet without offset or cutting past the point of tangency." Contrary to the above, the following beams were delivered to the jobsite with Re-entrant corners that are cut past the point of				15. Equip Furnished By <input type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD			
				24. Disposition Concurrence			
				REWORK	REJECT	REPAIR	USE AS IS
				PROJECT FIELD ENGINEER _____ DATE _____			
				PROJECT ENGINEER _____ DATE _____			
				PROJECT CONSTR QC ENGINEER _____ DATE _____			
				AUTHORIZED INSPECTOR _____ DATE _____			
17. Reported By <i>[Signature]</i>		Date 12/9/76	18. Validated By <i>[Signature]</i>		Date 12-9-76		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY) _____					
22. <input type="checkbox"/> Field Engineering Disposition		<input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
23. Project Engineering Disposition							
26. QC Acceptance							
				QC ENGINEER _____	DATE _____		
				AUTHORIZED INSPECTOR _____	DATE _____		

Flock 16 continued

tangency: Beams - 416B3^E & 416B4^E under contract 7-3153.

2. Beam 406B2^E has (1) bent and cracked angle. (contract 7-3153)

"Q" number is 1.101. Hold pending final disposition. ^{3 Feb 74} 3 12-16-74 hold tag(s) applied.

White Copy	-	Originator
Canary Copy	-	Field Engineer
Pink Copy	-	PQAE
Goldenrod Copy	-	QC

NONCONFORMANCE REPORT

76-12 1-4-77

1. Project Name Midland		Job No. 7220			19. No. 630	20. Page 1 of 1		
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Concrete Curing		5. Item Location Aux. Bldg. El. 634'			
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A SER NO. N/A		9. Source Construction	10. Contractor/Supplier N/A			
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. C-1.40-43 NO. C-231, Rev. 12	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD	
16. Nonconforming Condition: Specification 7220-C-231, Rev. 12, Section 13.2.4 states.....					24. Disposition Concurrence			
<p>"Concrete shall be protected from freezing by adequate covering, heating or both for a minimum of seven days." Contrary to this on 12/13/76 it was noted that approx. 6" of concrete from placement #A(634.5)c, for a length of approx. 20' along 6.2 line between lines B & C was exposed to the outside environment due to inadequate covering. "Q"-List No. 1.205. Hold for Engineering Disposition. One Hold Tag Applied.</p>					<input type="checkbox"/> REWORK	<input type="checkbox"/> REJECT	<input type="checkbox"/> REPAIR	<input type="checkbox"/> USE AS IS
					PROJECT FIELD ENGINEER		DATE	
					PROJECT ENGINEER		DATE	
					PROJECT CONSTR QC ENGINEER		DATE	
					AUTHORIZED INSPECTOR		DATE	
17. Reported By <i>Paul Vander Veen</i>	Date 12-14-76	18. Validated By <i>[Signature]</i>	Date 12-15-76	25. Disposition Results				
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)						
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING <i>Response by [Signature] 1/14/77</i>						
Use as is. The entire slab was fully protected during the placement and the curing period until approximately 1500 hrs. on Friday, 12/10/76. The placement was made on 12/8/76. This indicates adequate curing was provided for 44 hrs. While attempting to secure the edge of the protective cover prior to the upcoming weekend, the edge of the slab adjacent to Slab 10 was exposed. Slab 10 was previously poured. cor't on page 2.								
23. Project Engineering Disposition								
26. QC Acceptance								
QC ENGINEER				DATE				
AUTHORIZED INSPECTOR				DATE				

3

3

3

BEHOLD

NONCONFORMANCE REPORT (CONT'D)

PAGE 2 OF 2

14 NOV 630

B 22 con't.

(Top elevation 634.5'). When this problem was noted on 12/13/76, standing water on the surface of the concrete was not frozen. Curing was extended to provide 7 days of adequate curing.

H.L. Smith 1/4/77
H.L. Smith 1-4-77

10038-2

White Copy - Originator
Canary Copy - Field Engineer
Pink Copy - PQAE
Goldenrod Copy - QC

QC-G33

3

3

3



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 631	20. Page 1 of 1
2. Unit(s) Common	3. Drawing/Part No. F-7220-C233A-F14441-102-3		Rev 3	4. Item Description Miscellaneous Fabricated Metal - Embeds	
5. Item Location Sasse Rd Laydown Area		6. P.O. Or Spec No. 7220-F-14441 Rev 1		7. Serial No. 102E1, 102E2	
8. Replacement Part P/N N/A REV NO		9. Source Supplier		10. Contractor/Supplier Inland Ryerson Co.	
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. R-1,00-437 NO. C-233A Rev 9		12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		14. Discovered During <input checked="" type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST		15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD	
16. Nonconforming Condition: Specification 7220-C-233A, Rev 9, Appendix A, Para 3.0 states in part: "The Seller/Subcontractor shall furnish documentation in accordance with the specification as summarized and directed by Form G-321-D." Contrary to the above, quality verification documentation has not been received for 13 Embeds (No. 102E2) and 4 Embeds (No. 102E1) received 10-28-76. "Q" number is 1.202. Hold pending final disposition. 17 hold tag(s) applied.				24. Disposition Concurrence	
				REWORK	REJECT
				REPAIR	USE AS IS
				<i>Doc</i>	
				<i>MS [Signature]</i>	<i>12/22/76</i>
				PROJECT FIELD ENGINEER	DATE
				<i>M. J. [Signature]</i>	<i>12-28-76</i>
				PROJECT CONSTR QC ENGINEER	DATE
				AUTHORIZED INSPECTOR	DATE
17. Reported By <i>John R. [Signature]</i>		Date <i>12-15-76</i>		18. Validated By <i>[Signature]</i>	
				Date <i>12-15-76</i>	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)			
22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
The vendor is to supply the missing documentation. <i>Advent</i> <i>12/22/76</i> <i>[Signature]</i>					
23. Project Engineering Disposition					
26. QC Acceptance					
				QC ENGINEER	DATE
				AUTHORIZED INSPECTOR	DATE



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 632	20. Page 1 of 1		
2. Unit(s) Common	3. Drawing/Part No. F-7220-C233A-F14061-IR-94-4	Rev 4	4. Item Description Miscellaneous Fabricated Metal - Embeds	5. Item Location Sasse Rd Laydown Area			
6. P.O. Or Spec No. 7220-F-14061 Rev 1	7. Serial No. 94E1, 94E2, 94E3	8. Replacement Part P/N N/A REV	9. Source Supplier	10. Contractor/Supplier Inland Ryerson Co.			
11. Inspection Criteria <input type="checkbox"/> OWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. R-1.00-438 NO. C-233A Rev 9	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD	
16. Nonconforming Condition: Specification 7220-C-233A, Rev 9, Appendix A, Para 3.0 states in part: "The Seller/Subcontractor shall furnish documentation in accordance with the specification as summarized and directed by Form G-321-D." Contrary to the above, quality verification documentation has not been received for 1 Embed (No. 94E1), 1 Embed (No. 94E2) and 2 Embeds (No. 94E3) received 10-28-76. "Q" number is 1.202. Hold pending final disposition. 4 hold tag(s) applied.				24. Disposition Concurrence			
				REWORK	REJECT	REPAIR	USE AS IS
				Doc			
				PROJECT FIELD ENGINEER DATE <i>R. Brown</i> 12/22/76			
				PROJECT ENGINEER DATE <i>J. [unclear]</i> 12-28-76			
				PROJECT CONSTR QC ENGINEER DATE			
				AUTHORIZED INSPECTOR DATE			
17. Reported By <i>[Signature]</i>	Date 12-15-76	18. Validated By <i>[Signature]</i>	Date 12-15-76	25. Disposition Results			
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)					
22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING							
The vendor is to supply the missing documentation.							
<i>Grant</i> 12/22/76							
<i>[Signature]</i> 12/22/76							
23. Project Engineering Disposition							
26. QC Acceptance							
				QC ENGINEER	DATE		
				AUTHORIZED INSPECTOR	DATE		



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 633	20. Page 1 of 4
2. Unit(s) units 1 & 2	3. Drawing/Part No. See Attachment "A"	Rev N/A	4. Item Description Lamons Spiral-Wound Asbestos Gaskets	5. Item Location Whse #1 QC Hold Area	
6. P.O. Or Spec No. 7220-M-101A Rev 6	7. Serial No. N/A	8. Replacement Part P/N N/A REV _____	SER NO. _____	9. Source Supplier	10. Contractor/Supplier ITT Grinnell, Kerneraville, N.C.
11. Inspection Criteria <input type="checkbox"/> OWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER NO. M-201 Rev 7		IR NO. R-1.00-572	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC'G <input type="checkbox"/> CONST <input type="checkbox"/> TEST <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: 1. Spec 7220-M-481, Rev 9, Piping Class Sheets require that Flexitallic style R3, R4, or CG Gaskets be used for all flanged joints where a spiral-wound asbestos gasket is required. Contrary to the above, Lamons WR gaskets were received as listed on Attachment "A". 2. It is indeterminate as to what documentation is required for gaskets. "Q" number is indeterminate. Hold pending final disposition. 1 hold tag(s) applied.				24. Disposition Concurrence	
				REWORK	REJECT
				REPAIR	USE AS IS
				PROJECT FIELD ENGINEER	DATE
				PROJECT ENGINEER	DATE
				PROJECT CONSTR QC ENGINEER	DATE
				AUTHORIZED INSPECTOR	DATE
17. Reported By H. Bole Date 12-14-76				25. Disposition Results	
18. Validated By J. P. Minally Date 12-15-76					
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)					
22. <input type="checkbox"/> Field Engineering Disposition <input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING response requested by 1-10-76 1) Engineering is to confirm whether Lamons WR gaskets are an acceptable substitute for flexitallic style R-3, R-4, or CG gaskets. If so, spec. 7220-M-481 should reflect this. Cont'd on page 5 of 5.					
23. Project Engineering Disposition					
26. QC Acceptance					
				QC ENGINEER	DATE
				AUTHORIZED INSPECTOR	DATE

SHOP WORK ORDER

CAROLINA GASKET & RUBBER CO., INC.

U.S. 29 NORTH • P. O. DRAWER A-2 • GREENSBORO, N. C. 27402 • PHONE (910) 621-4568
MANUFACTURERS OF GASKETS

PACKING LIST

Attachment "A"
Page 1 of 3

MCR 633
Page 2 of 5

SOLD TO
ITT Grinnell Ind. Piping Inc.
Box 566
Kernersville, N.C. 27284

SHIP TO
Bechtel Power Corp.
2 Consumers Power Co.
Midland, Michigan

Attn: Q.A. Engineer

ENTERED 1-23-76	CUST. ORDER NO. KER-4765JF	SHIPPING DATE 12-1-76	ORDERED BY James Monroe	SHIPMENT NO. 1
--------------------	-------------------------------	--------------------------	----------------------------	-------------------

QUANTITY ORDERED	QUANTITY THIS SHIPMENT	BACK ORDERED	ITEM NO.	DESCRIPTION
6	0	6	1	P/N MS-7064 2 1/2" spiral wound WR gaskets, 300# Account # 063-8010-7094 <u>shipping schedule</u> 5-31-77
3	0	0	2	P/N MS-7063-1 2 1/2" spiral wound WR gaskets 150# Account #063-8010-7094 <u>shipping schedule</u> 1-30-76
6	6	0	3	P/N MS-7063-2 3" ditto Tag: (1) HCB (2) PM-607 Sh. 2 Rev. 0 <u>shipping schedule</u> 11-30-76
1	0	1	4	P/N MS-7067 12" spiral wound WR gaskets 150# Account #063-8010-7093 <u>shipping schedule</u> 4-29-77
4	0	4	5	P/N MR-7070-2 8" spiral wound WR gaskets 150# Account #063-8010-7091 <u>shipping schedule</u> 5-31-77 Tag: (1) HBC (2) PM-619 SH 12 Rev. 1
2	0	2	6	P/N MS-7068-1 8" spiral wound WR gaskets 600# Account #063-8010-7093 <u>shipping schedule</u> 4-29-77
1	0	1	7	P/N MR-7068-2 6" ditto <u>shipping schedule</u> 4-29-77 Account #063-8010-7093

NOTICE: INSPECT IMMEDIATELY. All claims must be made in 10 days.

No material will be accepted for credit without written permission from CAROLINA GASKET & RUBBER CO., INC.

Received by _____

SHOP WORK ORDER

CAROLINA GASKET & RUBBER CO., INC.

U.S. 29 NORTH • P. O. DRAWER A 2 • GREENSBORO, N. C. 27402 • PHONE (919) 621-4568
 MANUFACTURERS OF GASKETS

PACKING LIST DCA

Attachment "A"
 Page 2 of 3

NCR 633
 Page 3 of 5

SOLD TO ITI Grinnell and Piping Inc.
 Box 566
 Kernersville, N.C. 27284

SHIP TO Bechtel Power Corp.
 3 Consumers Power Co.
 Midland, Michigan

page 2

DATE ENTERED	CUST. ORDER NO.	SHIP VIA	SHIPPING DATE	ORDERED BY	SHIPMENT NO.
1-23-76	KER-4765JP	Strt Pkt. only	See Below	James Monroe	

QUANTITY ORDERED	QUANTITY THIS SHIPMENT	BACK ORDERED	ITEM NO.	DESCRIPTION
1	0	1	8	P/N MR-7068-3 8" ditto except 300# <u>Shipping schedule</u> 4-29-77
1	0	1	9	P/N MR-7068-4 6" ditto <u>shipping schedule</u> 4-29-77 Tag: (1) HLL (2) PM-613 SH 4 Rev. 4
14	14	0	10	P/N MS-706901 6" spiral wound WR gaskets 150# Account #063-8010-7094 <u>shipping schedule</u> k 11-30-76
4	4	0	11	P/N MS-7069-2 4" ditto <u>shipping schedule</u> 11-30-76
2	2	0	12	P/N MS-7069-2 4" ditto
2	2	0	13	P/N MS-7069-4 3" ditto Tag: (1) HBD (2) PM-617 SH 10 Rev. 3
2	2	0	14	P/N MS-7065-1 2 1/2" spiral wound WR gaskets 300# Account #063-8010-7094 <u>shipping schedule</u> 11-30-76
4	4	0	15	P/N MS-7065-2 3" ditto except 150# <u>shipping schedule</u> 11-30-76
2	2	0	16	P/N MS-7065-3 4" ditto <u>shipping schedule</u> 11-30-76 Tag: (1) HCD (2) PM-607 SH 5 Rev. 1

NOTICE: INSPECT IMMEDIATELY. All claims must be made in 10 days.

No material will be accepted for credit without written permission from CAROLINA GASKET & RUBBER CO., INC.

Received by _____

SHOP WORK ORDER

CAROLINA GASKET & RUBBER CO., INC.

U.S. 29 NORTH • P. O. DRAWER A2 • GREENSBORO, N. C. 27402 • PHONE (713) 571-4543
MANUFACTURERS OF GASKETS

PACKING LIST

Attachment "A"
Page 3 of 3

NCR 633
Page 4 of 5

ITT Grinnell End Piping Inc.
Box # 566
Kernersville, N.C. 27284

Dachtel Power Corp.
% Consumers Power Co.
Midland, Michigan

page 3

ENTERED	CUST. ORDER NO.	SHIP VIA	SHIPPING DATE	ORDERED BY	SHIPMENT NO.
1-23-76	KER-4765JT	ntx ext. only	See Below	James Hannon	

QUANTITY ORDERED	QUANTITY THIS SHIPMENT	BACK ORDERED	ITEM NO.	DESCRIPTION
10	0	10	17	P/N MS-7066-1 3" spiral wound WR gaskets 150# <u>Shipping schedule 3-31-77</u> Account #063-8010 7094
3	0	3	18	P/N MS-7066-2 2 1/2" ditto <u>shipping schedule 3-31-77</u> Tag: (1) HCG (2) PM-608-4 Rev. 1

NOTICE: INSPECT IMMEDIATELY. All claims must be made in 10 days.
No material will be accepted for credit without written permission from CAROLINA GASKET & RUBBER CO., INC.

Continued from block 22.

2) Engineering to identify specific documentation requirements; i.e., certify that gaskets are constructed of 304 stainless steel, blue-dyed canadian (Chrysotile) asbestos paper filler and contain a maximum of 200 PPM leachable chlorides (total soluble chlorides) per spec.

7220-M-481 Note 4.

After engineering determines documentation requirements they shall notify vendor to immediately transmit documentation to jobsite. If correct documentation is not available, the field recommends that engineering disposition this NCR reject.

George G. Butler 12-28-76
J.H. Pulito 12-28-76



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 634	20. Page 1 of 5	
2. Unit(s) Unit 1	3. Drawing/Part No. See Block 16	Rev N/A	4. Item Description Control Rod Drive Mechanism Subassemblies	5. Item Location Class A Whse #1		
6. P.O. or Spec No. 7220-M1.4	7. Serial No. See Block 16	8. Replacement Part P/N N/A REV	SER NO. Construction	10. Contractor/Supplier B & W (Diamond Power Specialty Corp.)		
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input checked="" type="checkbox"/> OTHER NO. MRI No. FS-III-1d		IR NO. R-2.00-1	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input checked="" type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: Material Receiving Instruction No. FS-III-1d, Rev 0 states in part: "Handling - Specific instructions for handling the shipping container are defined in the 'Packaging, Shipping, Receiving and Storage' section of the CRDM Instruction Manual." The CRDM Manual, Section 2, Para 2.2 states in part: "Each shipping box is designed and constructed to protect the components from physical damage, moisture and contaminants under normal conditions of shipment and storage."				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS PROJECT FIELD ENGINEER DATE PROJECT ENGINEER DATE PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		
17. Reported By Robert S. Morrow 12/16/76		18. Validated By [Signature] 12-16-76		25. Disposition Results		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING 12-17-76		<input checked="" type="checkbox"/> TO OTHERS (SPECIFY) BAIBLOCK & WILCOX				
22. <input type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING						
23. Project Engineering Disposition						
26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR D/						

BEL

Block 16 continued

The containers must be handled as gently as possible."

Contrary to the above, four(4) CRDM Subassemblies in shipping container #23 were spilled from a forklift while handling in the Class A Warehouse. The box turned on its side from the forks of the lift as it was being lowered from two other crates. The subassemblies broke out of the wooden container and the contents spilled out onto the floor. See Attachment C. Container #23 contents - See Attachments A & B.

The damage to the subassembly and related accessories in container #23 is indeterminate. Preliminary inspection reveals that a minimum of three(3) of the subassemblies air-evacuated polyethylene envelopes were damaged.

"Q" number is 4.013. Hold pending final disposition. / hold tag(s) applied.

ATTACHMENT A

TECHNICAL PROCEDURES

NCR 634Pg 3 of 5 NUCLEAR

SECTION	7.728
PROC. NO.	P-12
PAGE NO.	17
DATE	8/8/75
REVISION	B

SUBJECT: APPENDIX D
PACKING LIST FOR GROUP I CRDM
SUBASSEMBLY CONTAINER (705277-1040)

Qty.	P/N	S/N	CRDM S/N	Container No. <u>23</u> Description
1	704940-1057	<u>945</u>	<u>945</u>	CRDM Subassembly
1	704940-1057	<u>946</u>	<u>946</u>	CRDM Subassembly
1	704940-1057	<u>947</u>	<u>947</u>	CRDM Subassembly
1	704940-1057	<u>948</u>	<u>948</u>	CRDM Subassembly
4	706179-1146	N/A	N/A	Leadscrew Support Tube with Retainer Ring, L/S Guide (P/N 706186-1139) installed.
4	987941-0011	N/A	N/A	Metallic "O" Ring
4	987941-0009	N/A	N/A	"O" Ring*
12'	959571-0005	N/A	N/A	Lockwire, #20 AWG
4	987941-0007	N/A	N/A	"O" Ring*
4	703367-1137	N/A	N/A	Cap - Seal Integrity Port
16	703967-1123	N/A	N/A	Mach. Hex - Head Bolt
4	987941-0010	N/A	N/A	Metallic "O" Ring

Fill in blanks with appropriate Serial Number.

*NOTE:

These two (2) O-Rings are not to be packaged with the CRDM. The Consumers CRDM's may be stored for up to 5 years. After removal from storage, O-Rings will be shipped to site.

DIAMOND QUALITY CONTROL
ACCEPTANCE STAMP



DATE 11-15-76

SUBJECT: APPENDIX A
AS TESTED ASSEMBLY LIST
FOR TYPE "C" SHIM CRDM

SECTION	7.728
PROC. NO.	P-12
PAGE NO.	9
DATE	4/16/75
REVISION	0

CRDM Serial Number DP 945

Part No.	Serial No.	Description	Container No.	Group
704940-1057	<u>945</u>	CRDM Subassembly	<u>23</u>	I
709287-3053	<u>249</u>	Stator-Water Jacket Assy.	<u>16</u>	II
704441-1051	<u>165</u>	Position Indicator Assy.	<u>36</u>	III
706719-1051	<u>1004</u>	Leadscrew Assembly	<u>32</u>	IV

CRDM Serial Number DP 946

704940-1057	<u>946</u>	CRDM Subassembly	<u>23</u>	I
709287-3053	<u>248</u>	Stator-Water Jacket Assy.	<u>16</u>	II
704441-1051	<u>136</u>	Position Indicator Assy.	<u>36</u>	III
706719-1051	<u>1022</u>	Leadscrew Assembly	<u>32</u>	IV

CRDM Serial Number DP 947

704940-1057	<u>947</u>	CRDM Subassembly	<u>23</u>	I
709287-3053	<u>255</u>	Stator-Water Jacket Assy.	<u>16</u>	II
704441-1051	<u>132</u>	Position Indicator Assy.	<u>36</u>	III
706719-1051	<u>1123</u>	Leadscrew Assembly	<u>32</u>	IV

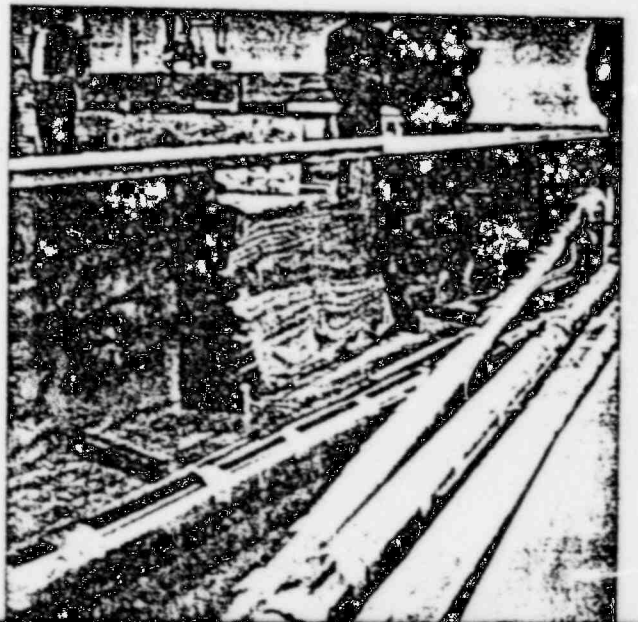
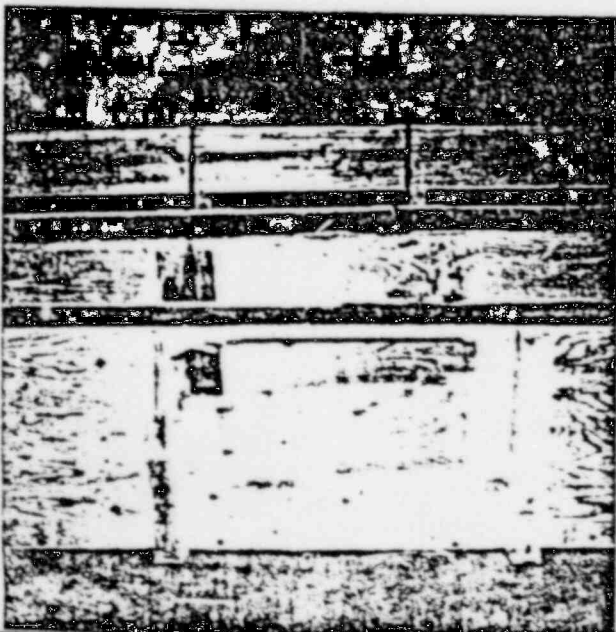
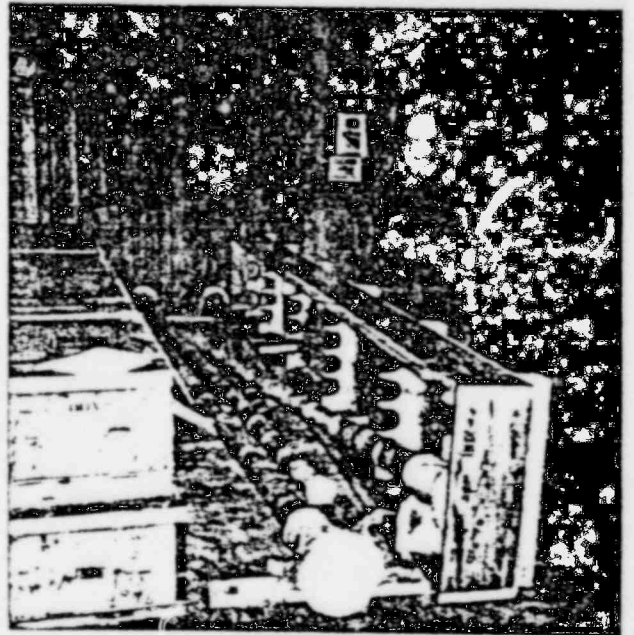
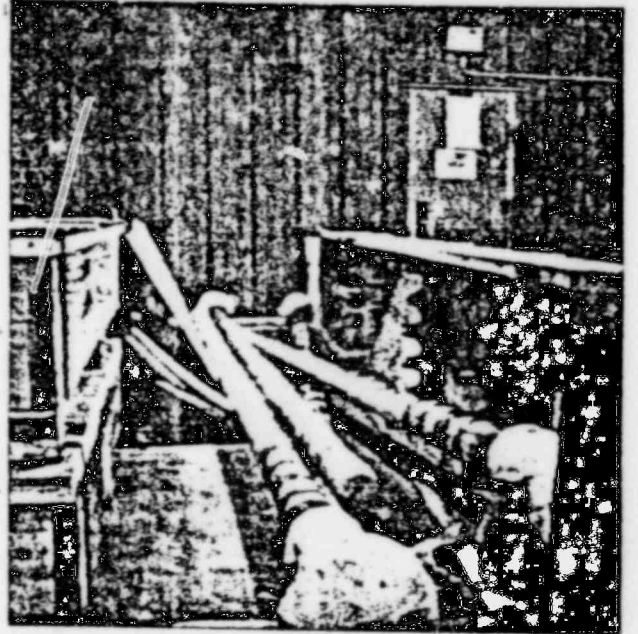
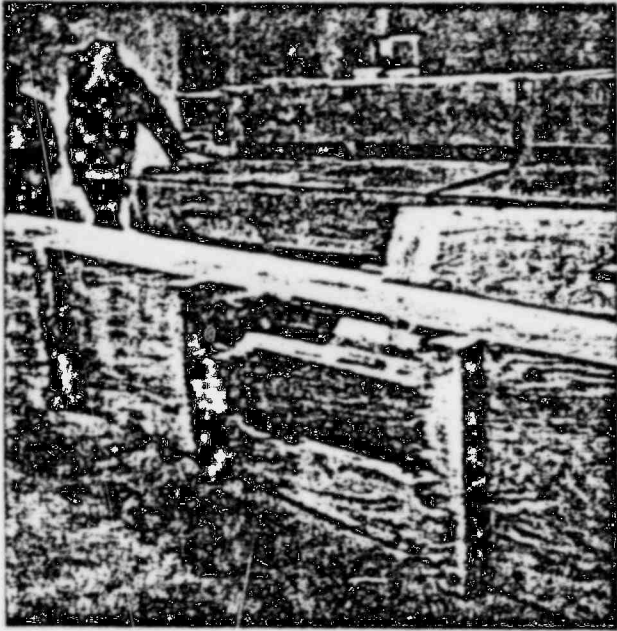
CRDM Serial Number DP 948

704940-1057	<u>948</u>	CRDM Subassembly	<u>23</u>	I
709287-3053	<u>251</u>	Stator-Water Jacket Assy.	<u>16</u>	II
704441-1051	<u>101</u>	Position Indicator Assy.	<u>36</u>	III
706719-1051	<u>1024</u>	Leadscrew Assembly	<u>32</u>	IV

CRDM Serial Number DP _____

704940-1057	_____	CRDM Subassembly	_____	I
709287-3053	_____	Stator-Water Jacket Assy.	_____	II
704441-1051	_____	Position Indicator Assy.	_____	III
706719-1051	_____	Leadscrew Assembly	_____	IV

Fill in Blanks With Appropriate Serial Number





NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220			19. No. 635	20. Page 1 of 1
2. Unit(s) Unit 2	3. Drawing/Part No. F-7220-C233A-13637-MV-2-2		Rev 2	4. Item Description Embeds		5. Item Location Poseyville Laydown Area
6. P.O. Or Spec No. 7220-7-13637 Rev 0	7. Serial No. See Block 16	8. Replacement Part P/N N/A REV _____	SER NO. _____	9. Source Vendor	10. Contractor/Supplier Mississippi Valley Structural Steel	
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. R-1,00-539 NO. Same as Block 3	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC'G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	
15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD		16. Nonconforming Condition: Bechtel approved Mississippi Valley Structural Steel Drawing 7-7220-C233A-13637-MV-2-2 requires full penetration welds with 5/8" fillets between the pedestals and the base plate on type A2 embeds. Contrary to the above, the pedestal welds on two A2 embeds have insufficient 5/8" fillets.		24. Disposition Concurrence		
"Q" number is 1.102. Hold pending final disposition. ¹²⁻²¹⁻⁷⁶ hold tag(s) applied.				REWORK _____ REJECT _____ REPAIR _____ USE AS IS _____		
17. Reported By <i>[Signature]</i> Date 12/16/76		18. Validated By <i>[Signature]</i> Date 12-16-76		PROJECT FIELD ENGINEER _____ DATE _____		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)				PROJECT ENGINEER _____ DATE _____		
22. <input type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING				PROJECT CONSTR QC ENGINEER _____ DATE _____		
23. Project Engineering Disposition				AUTHORIZED INSPECTOR _____ DATE _____		
				25. Disposition Results		
				26. QC Acceptance		
				QC ENGINEER _____ DATE _____		
				AUTHORIZED INSPECTOR _____ DATE _____		

NONCONFORMANCE REPORT

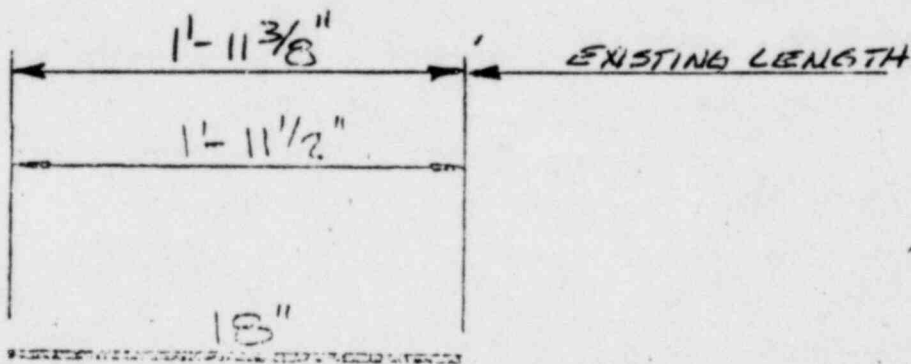
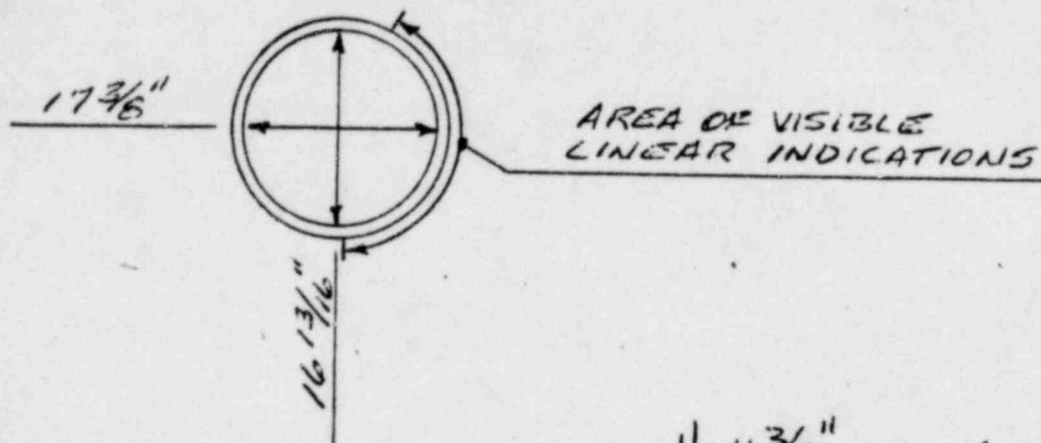
1. Project Name Midland		Job No. 7220		19. No. 636	20. Page 1 of 2		
2. Unit(s) #2	3. Drawing/Part No. M-611 sh 3	Rev 4/F1	4. Item Description Pipe Spool #2-HCB-2-S611-3-6		5. Item Location Combination Shop		
6. P.O. Or Spec No. 7220-M-104A	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A	SER NO. N/A	9. Source Vendor	10. Contractor/Supplier ITT Grinnell		
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input checked="" type="checkbox"/> OTHER NO. N/A		IR NO. P-1.20-611-3	12. ASME AUTHORIZED INSPECTION REQ.D <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD	
16. Nonconforming Condition: During In-Process inspection activities of pipe spool # 2-HCB-2-S611-3-6, visible linear indications were noted during the weld end preparation for FW #3. Approximately 1/8" or better has been taken off the 37 1/2° bevel of spool to remove existing visible linear indications. Indications were still visible after metal was removed. Also spool is out of round by 9/16". See attached sketch for details. Hold For Engineering Disposition. <u>One</u> Hold Tag Applied. "Q" No. 4.114.				24. Disposition Concurrence			
				REWORK	REJECT	REPAIR	USE AS IS
				PROJECT FIELD ENGINEER: <i>Cy Boon</i> 12/28/76 PROJECT ENGINEER: <i>P. J. Connolly</i> 12-28-76 PROJECT CONSTR QC ENGINEER: <i>George G. Butler</i> 12/28/76 AUTHORIZED INSPECTOR: <i>George G. Butler</i> 12/28/76			
17. Reported By <i>Frank Mahala</i>	Date 12-17-76	18. Validated By <i>P. J. Connolly</i>	Date 12-17-76	25. Disposition Results			
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)					
22. <input checked="" type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING							
Scrap spool 2-HCB-2-5611-3-6 and replace with proper field purchased material. Therefore field engineering George G. Butler 12/22/76 dispositions this NCR as "reject".							
George G. Butler 12-27-76 G. J. Pulito 12-28-76							
23. Project Engineering Disposition							
26. QC Acceptance							
QC ENGINEER				DATE			
AUTHORIZED INSPECTOR				DATE			

ITT Grinnell Industrial Piping, Inc.

5

ORDER OR CONT. NO. 7093
 CONSUMERS POWER COMPANY
 MIDLAND, MICHIGAN

DEPT. _____
 DRAWN WJ CHK'D. 92.5-15-70
 REV. PKC 9/22/74 CHK'D. WAP
 REV. P.M.A. 10/1/74 CHK'D. DAK



NCR #636, PAGE 2 of 2

Handwritten signature and date:
 3-31-26
 Bunker Cook

37 1/2° BEVEL ENDS

STN. STL.

CLASS Nuc. CL. 2 LINE SPEC. 2HCB APP. CODE ACME SERIAL NO. REQD. 1

RADIOGRAPHY (RT)	SPECIAL MARKING	PREHEAT	CERT. OF COMPLIANCE
MAG. PARTICLE (MT)	SPECIAL CLEANING <input checked="" type="checkbox"/>	HEAT TREAT	MILL TEST REPORTS
LIQ. PENETRANT (PT)	PAINTING	CODE STAMP	DATA REPORTS

SYSTEM DEGAY HEAT FROM FAB. SPEC. FC-320N 55-KU-19
 REF. DRWG NO. M-611 HTL PREP. 150 POS. TEMP. REQ. WT. 140 LBS.
MR-7B-C 2HCB-2-561-3-6 MD-7B-C



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 638	20. Page 1 of 2		
2. Unit(s) See Block 16	3. Drawing/Part No. See Block 16	Rev N/A	4. Item Description Shop Fabricated Pipe Spool	5. Item Location Roseville Laydown Area			
6. P.O. Or Spec No. 7220-MIO4A-AC(Rev 6)	7. Serial No. See Block 16	8. Replacement Part P/N N/A REV _____	SER NO. _____	9. Source Supplier	10. Contractor/Supplier ITT Grinnell - Kernersville, N.C.		
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER NO. M-201 Rev 7		IR NO. See Block 16	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD	
16. Nonconforming Condition: Specification 7220-M-201, Rev 7, Para 6.6.1.b states in part: "For carbon steel Nuclear Class 1 and 2 piping, bagged silica-gel desiccant shall be firmly attached to the interior side of the protective caps. The number and size of bags shall be in accordance with the manufacturer's recommendation for the enclosed volume of pipe. The number of bags used shall be marked on the outside of the pipe." Contrary to the above, Auxiliary Steam System pipe spools 25RB-13-3634-1-h (drawing				24. Disposition Concurrence			
				REWORK	REJECT	REPAIR	USE AS IS
				PROJECT FIELD ENGINEER		DATE	
				PROJECT ENGINEER		DATE	
				PROJECT CONSTR QC ENGINEER		DATE	
				AUTHORIZED INSPECTOR		DATE	
17. Reported By <i>[Signature]</i>		Date 12-20-76		18. Validated By <i>[Signature]</i>		Date 12-20-76	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)		25. Disposition Results			
22. <input type="checkbox"/> Field Engineering Disposition		<input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
23. Project Engineering Disposition							
				26. QC Acceptance			
				QC ENGINEER		DATE	
				AUTHORIZED INSPECTOR		DATE	

BE UNIT

NONCONFORMANCE REPORT (CONT'D)

Block 16 continued

MR-6-35Y, Submittal 1, IR No. 2-1,00-524), 22PB-14-864-1-8 (drawing MR-6-51Y, Submittal 1, IR No. 2-1,00-550) and 22PB-13-864-1-7 (drawing MR-6-52X, Submittal 1, IR No. 2-1,00-550) were delivered with no desiccant bags inside the spool. Spool 22PB-12-864-1-7 has water and rust on the inside surface.

"AP" number is 1342. Hold pending final disposition. 4/13/78 hold to-(s) applied.

10088-2

White Copy	-	Originator
Canary Copy	-	Field Engineer
Pink Copy	-	QA/E
Goldenrod Copy	-	QC

QC-01-3



NONCONFORMANCE REPORT

1. Project Name 1st Floor		Job No. 7220		19. No. 639	20. Page 1 of 2	
2. Unit(s) N/A	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Threaded Welding Studs/ Structural Bolts & Nuts/Crane Rails	5. Item Location Whse #1 QC Hold Area		
6. P.O. Or Spec No. 7220-C38 Rev 8	7. Serial No. N/A	8. Replacement Part P/N N/A REV	SER NO.	9. Source Supplier	10. Contractor/Supplier Installs Iron Works	
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. <u>See Block 16</u> NO. <u>C-38 Rev 7</u>	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC'G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> ENG <input type="checkbox"/> FLD
16. Nonconforming Condition: Specification 7220-C38, Rev 7, Appendix A, Para 3.0 states in part: "The Seller/Subcontractor shall furnish documentation in accordance with the specification as summarized and directed by Form G-321-D." The completed G-321-D is then used for a cover sheet as directed on the back of the form." Contrary to the above, the G-321-D's received for threaded welding studs (IR No. R-1,00-442) and steel rails (IR No. R-1,00-539) are not traceable to the accompanying documentation or material.					24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS PROJECT FIELD ENGINEER DATE PROJECT ENGINEER DATE PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE	
17. Reported By <i>John P. [Signature]</i>	Date 12-20-76	18. Validated By <i>[Signature]</i>	Date 12-20-76	25. Disposition Results		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)						
22. <input type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING						
23. Project Engineering Disposition						
26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR DATE						

REC'D

NONCONFORMANCE REPORT (CONT'D)

Block 16 continued

The structural bolts and nuts (IR No. R-1.CO-467 and R-1.CO-515) do not have G-221-D's. 1

"Q" number for Crane Rails is 1.201 and for studs and bolts is indeterminate. Hold pending final disposition.
Hold tag(s) applied.

1 Instruction Record Scope

- R-1.CO-422 715 Threaded Welding Studs - Installs Iron Works P.O. No. V-2127
- R-1.CO-457 Structural Bolts - 517 Bolts 1 1/8-7X5, 710 Bolts 1 1/8-7X4 and 200 Bolt. 1 1/8-7X4 -
Installs Iron Works P.O. No. V-2122 (partial)
- R-1.CO-515 Structural Bolts - 60 Bolts 1 1/8-7X4, 610 Bolts 1 1/8-7X5, 25 Bolts 1 1/8-7X6, 481 Bolts
1 1/8-7X5 and 93 Bolts 1 1/8-7X5 - Installs Iron Works P.O. No. V-2122 (partial)
- R-1.CO-539 Steel Rail - 1 pc. 175# 30'0", 1 pc. 175# 37'6", 2 pcs. 175# 18'10-3/4", 5 pcs. 175# 30'0"
204 pcs. of millon and slotted - Installs Iron Works P.O. No. V-2122

10088-2

QC-633

White Copy - Originator
 Canary Copy - Field Engineer
 Pink Copy - POAE
 Goldenrod Copy - QC



NONCONFORMANCE REPORT

TO 1-4-77

1. Project Name Midland Nuclear Power Plant		Job No. 7220		19. No. 640	20. Page 1 of 2			
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Compressive Strength Cylinders	5. Item Location On-Site Test Lab				
6. Part of Spec C-208, Rev. 8	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A	SER NO. N/A	9. Source Subcontractor	10. Contractor/Supplier United States Testing Company			
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. S/C-1.05-6 NO. C-208, Rev. 8	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC.G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD		
16. Nonconforming Condition: Specification 7220-C-208, Paragraph 7.3.2 states.... "Cylinders shall be made, cured and tested in accordance with ASTM C-31 and C-39." Further ASTM C-31, Paragraph 7.2 states in part.... "During the first 24h after molding, store all test specimens under conditions that maintain the temperature immediately adjacent to the specimens in the range of 60 to 80F...." Contrary to the above, the record cylinder sets listed below were found not to have been cured within the specified temperature range.				24. Disposition Concurrence				
<p style="text-align: center;">CONTINUED ON PAGE 2.</p>				REWORK		REJECT	REPAIR	USE AS IS
				PROJECT FIELD ENGINEER		DATE		
				PROJECT ENGINEER		DATE		
				PROJECT CONSTR QC ENGINEER		DATE		
17. Reported By Clayton Feisley				Date 12/21/76	18. Validated By K. J. ...	Date 12-21-76	25. Disposition Results	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)						
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING						
<p style="text-align: center;">Repair requested by 1/31/77</p> <p style="text-align: center;">Use as is. Cylinders will provide the best data available of the concrete represented.</p> <p style="text-align: center;">K. J. ... 1-4-77 K. J. ... 1/4/77</p>								
23. Project Engineering Disposition								
				26. QC Acceptance				
				QC ENGINEER		DATE		
				AUTHORIZED INSPECTOR		DATE		

SET #	DATE CAST	PLACEMENT #	TEMP. OF CURING
1189	11/17/76	SWI(592)a	50°-64°F
1190	11/17/76	"	"
1192	11/17/76	"	"
1193	"	"	"
1195	"	"	"
1196	"	"	"
1198	"	"	"
1199	"	"	"
1202	11/17/76	SWI(592)a	50°-64°F
1211	11/24/76	CC(693.42)a'	58°-71°F
1246	12/7/76	SWI(608)b'	57°-70°F
1265	12/15/76	A(634.5)d	76°-82°F
1267	12/15/76	A(641.25)a	76°-82°F
1270	12/16/76	T(614)h	58°-73°F
1271	12/16/76	"	"
1273	"	"	"
1281	"	"	58°-66°F
1282	"	"	58°-66°F
1284	12/16/76	T(614)h	58°-66°F

No Hold Tags Applied. Hold for Engineering Disposition. Q-List Nos. 1.205, 1.304, 1.105 & 1.505

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 641	20. Page 1 of 2		
2. Unit(s) Unit 2	3. Drawing/Part No. MFG-80X	Rev 0	4. Item Description Shop Fabricated Pipe Spool	5. Item Location Poseyville Laydown Area			
6. P.O. Or Spec No. 7220-M104A-AC Rev 6	7. Serial No. 2FBB-14-5634-1-7	8. Replacement Part P/N H/A REV _____ SER NO. _____	9. Source Supplier	10. Contractor/Supplier ITT Grinnell, Kernersville, N.C.			
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. R-1.00-603 NO. M-201 Rev 7	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD	
16. Nonconforming Condition: 1. Specification 7220-M-201, Rev 7, Para 6.6.1.b states in part:				24. Disposition Concurrence			
<p>"For carbon steel Nuclear Class 1 and 2 piping, bagged silica-gel dessicant shall be firmly attached to the interior side of the protective caps. The number and size of bags shall be in accordance with the manufacturer's recommendation for the enclosed volume of pipe. The number of bags used shall be marked on the outside of the pipe."</p> <p>Contrary to the above, pipe spool 2FBB-14-5634-1-7 was delivered with contaminates</p>				REWORK	REJECT	REPAIR	USE AS IS
				PROJECT FIELD ENGINEER _____		DATE _____	
				PROJECT ENGINEER _____		DATE _____	
				PROJECT CONSTR QC ENGINEER _____		DATE _____	
				AUTHORIZED INSPECTOR _____		DATE _____	
17. Reported By <i>[Signature]</i>		Date 12-22-76		18. Validated By <i>[Signature]</i>		Date 12-23-76	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY) 11				25. Disposition Results			
22. <input type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING							
23. Project Engineering Disposition							
				26. QC Acceptance			
				QC ENGINEER _____		DATE _____	
				AUTHORIZED INSPECTOR _____		DATE _____	

Con't Pg. 2

SECRET

NONCONFORMANCE REPORT (CONT'D)

Block 16 continued

(rocks, sand, water and rust) inside but no desiccant.

"Q" number is 4.342. Hold pending final disposition. hold tag(s) applied.

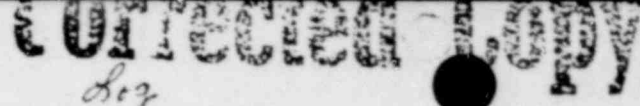
10088-2

QC-G3-3

- White Copy - Originator
- Canary Copy - Field Engineer
- Pink Copy - PQAE
- Goldenrod Copy - QC

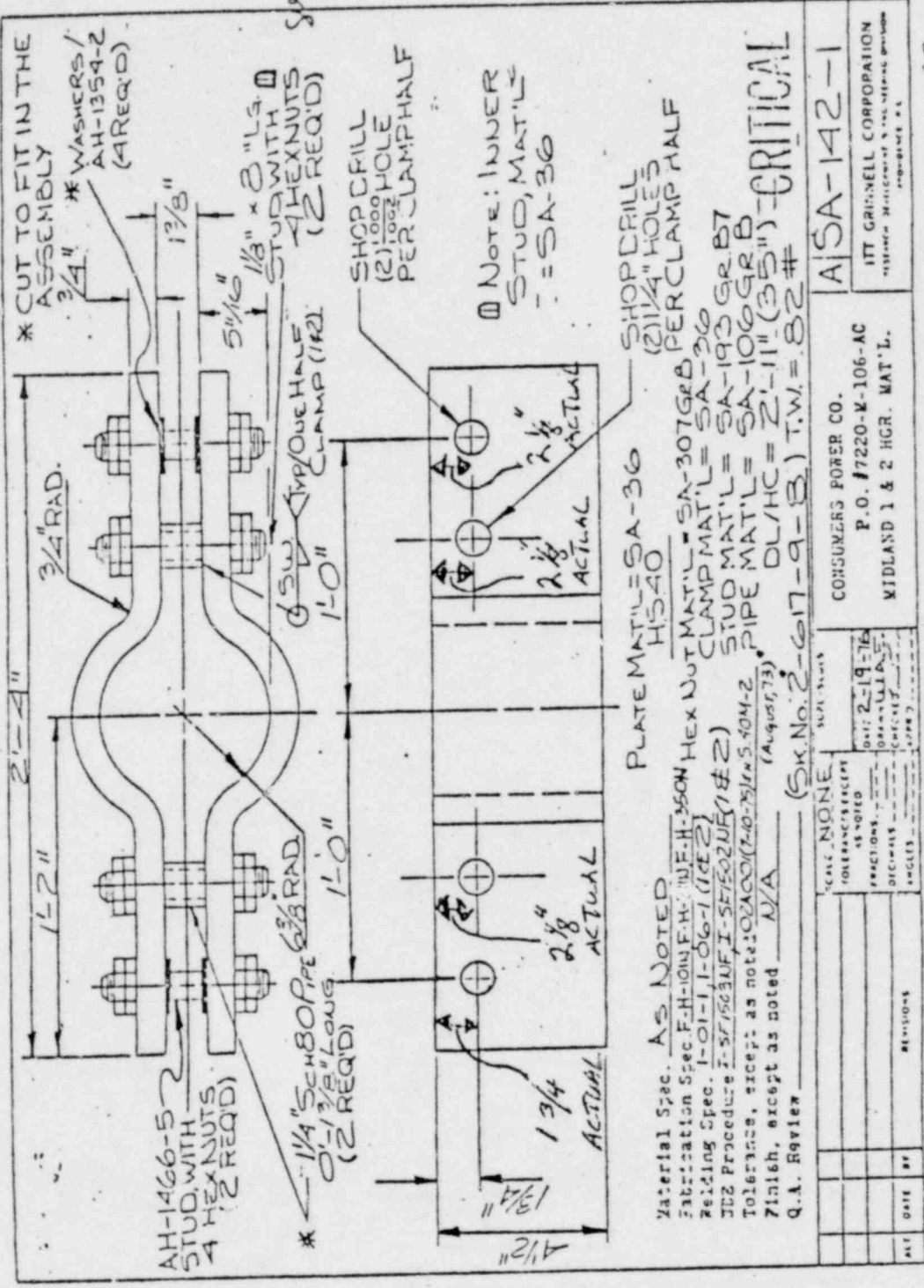


NONCONFORMANCE REPORT



807

1. Project Name Midland		Job No. 7220			19. No. 642	20. Page 1 of 1		
2. Unit(s) 2	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Slump Tests		5. Item Location Field Testing			
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A SER NO N/A		9. Source Subcontractor	10. Contractor/Supplier U. S. Testing Company			
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. N/A NO. C-208, Rev. 8	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD	
16. Nonconforming Condition: Specification 7220-C-208, Rev. 8, Sect. 7.3.3 states in part.....					24. Disposition Concurrence			
<p>"a slump measurement shall be made for every 35 cubic yards or fraction thereof of concrete produced." Contrary to the above, placement number CC(673.1)b' on 11/10/76 a slump test was performed in the field on Ticket No. 10061 representing 36 cubic yards and on Ticket No. 10077 representing 126 cubic yards, thereby exceeding the 35 yd. requirement. Q-List is 1.105. One Hold Tag Applied. Hold for Engineering Disposition.</p>					REWORK	REJECT	REPAIR	USE AS IS
					PROJECT FIELD ENGINEER		DATE	
					PROJECT ENGINEER		DATE	
					PROJECT CONSTR QC ENGINEER		DATE	
					AUTHORIZED INSPECTOR		DATE	
17. Reported By Shirley Galt		Date 12/23/76	18. Validated By [Signature]		Date 12-23-76	25. Disposition Results		
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)						
22. <input type="checkbox"/> Field Engineering Disposition		<input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING						
23. Project Engineering Disposition								
26. QC Acceptance								
QC ENGINEER				DATE				
AUTHORIZED INSPECTOR				DATE				



ITT GRINNELL CORPORATION
MIDLAND 1 & 2 HGR. MAT'L.
P.O. 17220-K-106-AC
CONSUMERS POWER CO.

A.F. MOGLEAR

SK No. 2-617-9-B
REV No. 1



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220			19. No. 644	20. Page 1 of 1			
2. Unit(s) Common	3. Drawing/Part No. 1-610-4-2/ 10-IFCB-34-H2	Rev Sub 1	4. Item Description Cut Rebar		5. Item Location Aux. Bldg., El. 568'				
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A	SER NO. N/A	9. Source Construction	10. Contractor/Supplier N/A				
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. N/A NO. 1220-C-307	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD			
16. Nonconforming Condition: Specification 7220-C-306, Rev. 0, SCN C-306-6004, states in part:				24. Disposition Concurrence					
<p>"In the event it is necessary to cut more than one rebar per connection, prior approval must be obtained from the Project Engineer." Contrary to the above, during installation of hanger 10-IFCB-34-H2 two rebar were cut approximately 1/2 their diameters in one hole. Q-List No. is 1.203. 1 Hold Tag Applied. Hold for Engineering Disposition.</p>				REWORK			REJECT	REPAIR	USE AS IS
				PROJECT FIELD ENGINEER			DATE		
				PROJECT ENGINEER			DATE		
				PROJECT CONSTR QC ENGINEER			DATE		
				AUTHORIZED INSPECTOR			DATE		
17. Reported By <i>K. H. ...</i>	Date 12-23-76	18. Validated By <i>H. ...</i>	Date 12-23-76	25. Disposition Results					
21. Routing <input type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)									
22. <input type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING									
23. Project Engineering Disposition									
26. QC Acceptance									
QC ENGINEER			DATE						
AUTHORIZED INSPECTOR			DATE						

NONCONFORMANCE REPORT

log
10-1-4-77

1. Project Name Midland		Job No. 7220		19. No. 645	20. Page 1 of 1
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Admixture Batching Tolerances		5. Item Location Placement No. SWI (609) a' S/E.r.u.
6. P.O. Or Spec No. C-230 Rev. 8	7. Serial No. N/A	8. Replacement Part P/N/N/A REV N/A	SER NO. N/A	9. Source Subcontractor	10. Contractor/Supplier Champion, Inc.
11. Inspection Criteria <input type="checkbox"/> OWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. C-1,30-101 NO. C-230 Rev. 8	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST
16. Nonconforming Condition: Spec. C-230 Rev. 8, Section 9.2.1 requires that all concrete materials be measured in accordance with ASTM C-94, which states in part that, "Powdered admixture weighting accuracy shall be ± 3 percent of the design weight." Contrary to this batch ticket #12446 representing approximately 6 c.y. of concrete from placement SWI (609) a' of 12-22-76 was placed with the fly ash content 2 pounds below the minimum allowable weight. "Q" List No. 1.105. Hold For Engineering Disposition. <u>One (1) Hold Tag Applied</u>					15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD
17. Reported By <i>Paul Vanier</i> Date 12-27-76					24. Disposition Concurrence
					REWORK REJECT REPAIR USE AS IS
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)					25. Disposition Results
22. <input type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Disposition requested by 2/9/77 Use as is. <i>11/14-77 K. [Signature] 1/4/77</i>					
23. Project Engineering Disposition					
					26. QC Acceptance
					QC ENGINEER DATE
					AUTHORIZED INSPECTOR DATE

NONCONFORMANCE REPORT

To A-1-4-77

1. Project Name Midland		Job No. 7220		19. No. 646	20. Page 1 of 1
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Concrete Curing		5. Item Location Aux. Bldg. Walls 19E & 19W
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A		9. Source Construction	10. Contractor/Supplier N/A
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. C-140-98 NO. C-231 Rev. 12	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST
15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD					
16. Nonconforming Condition: Spec. 7220 C-231 Rev. 12 Para. 13.2.4 states in part: "During the curing period, the concrete members shall be adequately protected to maintain concrete surface temperature of not less than 50°F." Contrary to the above, the the surface temperature, on the South portions of walls 19E & W, dropped to 33°, for approximately 4 hours on 12-22-76. "Q" List No. 1.205. <u>Two</u> Hold Tags Applied. Hold For Engineer Disposition.			24. Disposition Concurrence		
			REWORK	REJECT	REPAIR
			USE AS IS		
			PROJECT FIELD ENGINEER	DATE	
			PROJECT ENGINEER	DATE	
			PROJECT CONSTR QC ENGINEER	DATE	
			AUTHORIZED INSPECTOR	DATE	
17. Reported By <i>Stephen C. Abbott</i>		Date 12/27/76	18. Validated By <i>[Signature]</i>		Date 12-27-76
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)			
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING <i>Response requested by 1/24/77</i>			
Use as is. This pour was made on 12-15-76. The temperature dropped during the final day of curing. Cure was subsequently extended to provide at least 7 days of adequate curing conditions. <i>K. G. [Signature] 1/4/77</i>					
23. Project Engineering Disposition					
26. QC Acceptance					
QC ENGINEER				DATE	
AUTHORIZED INSPECTOR				DATE	

3

3

3

REC

NONCONFORMANCE REPORT

203
A2 A4-7

1. Project Name Midland		Job No. 7220			19. No. 647	20. Page 1 of 2		
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Concrete Curing		5. Item Location Leibheer Crane Hole			
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A	SER NO. N/A	9. Source Construction	10. Contractor/Supplier N/A			
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER NO. C-231, Rev. 12		IR NO. C-1.40-26	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC-G <input checked="" type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD	
16. Nonconforming Condition: Specification 7220-C-231, Rev. 12, Para. 13.2.4 states in part: "During the curing period, the concrete members shall be adequately protected to maintain concrete surface temperature of no less than 50°F." Contrary to the above, the concrete temperature in the Leibheer Crane Hole (structural backfill concrete) dropped below 50°F. from 7:00 AM 12/8/76 to 1:00 PM 12/9/76. There was standing water in the Leibheer Crane Hole and it took approximately 36 hours to raise the temperature from a recorded low of 40° to the minimum of 50°. (Block 16 Continued on page 2)					24. Disposition Concurrence			
					REWORK	REJECT	REPAIR	USE AS IS
					PROJECT FIELD ENGINEER	DATE		
					PROJECT ENGINEER	DATE		
					PROJECT CLERK QC ENGINEER	DATE		
					AUTHORIZED INSPECTOR	DATE		
17. Reported By Stephen O'Connell	Date 12/27/76	18. Validated By R. L. Kinch		Date 12-27-76	25. Disposition Results			
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)						
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING, F. RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Response required by 1/31/77						
Use as is. Curing was extended 1 day. This pour called for lean concrete backfill. Because A-Mixes are not pumpable, B-2 concrete was used. Concrete placed on 12/7/76 was represented by cylinder sets 1247 and 1248. 7 day compressive strengths for these cylinder sets were 2635 psi and 2480 psi respectively, in excess of the 90 day strength required.								
23. Project Engineering Disposition <i>R. L. Kinch 1/4/77</i>								
26. QC Acceptance								
					QC ENGINEER	DATE		
					AUTHORIZED INSPECTOR	DATE		

Block # 16 Continued)

Also on 12/15/76, the temperature dropped to 40° for approximately 3 hours.

"Q" List No. 1.205 One Hold Tag Applied.
Hold For Engineering Disposition.

1

10098-2

White Copy -- Originator
Canary Copy -- Field Engineer
Pink Copy -- PQAE
Goldenrod Copy -- QC

QC-G3-3

3



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 648	20. Page 1 of 2		
2. Unit(s) Unit 1	3. Drawing/Part No. See Block 16	Rev N/A	4. Item Description Pipe Hanger Assemblies	5. Item Location Whse #2 QC Hold Area			
6. P.O. Or Spec No. 7220-M106-AC Rev 3	7. Serial No. See Block 16	8. Replacement Part P/N N/A REV _____	9. Source Vendor	10. Contractor/Supplier ITT Grinnell, Warren, Ohio			
11. Inspection Criteria <input checked="" type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. R-1.CO-535 NO. See Block 16 Item 1 & 2	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD	
16. Nonconforming Condition: 1. Purchase Order 7220-M106-AC, Rev 3, Documentation Submittal,				24. Disposition Concurrence			
<p>Para 2 states in part: "All engineering documents marked in column 5 of Form G-321-D must be submitted for Buyer approval. Those engineering documents marked yes in column 5 require approval prior to commencement of fabrication." Contrary to the above, the Quality Documentation for the following hanger assembly shows that it was fabricated to a hanger sketch that had a Bechtel approval Level 0. Revision not</p>				REWORK	REJECT	REPAIR	USE AS IS
				PROJECT FIELD ENGINEER		DATE	
				PROJECT ENGINEER		DATE	
				PROJECT CONSTR QC ENGINEER		DATE	
				AUTHORIZED INSPECTOR		DATE	
17. Reported By <i>[Signature]</i>	Date <i>12/16/76</i>	18. Validated By <i>[Signature]</i>	Date <i>12-29-76</i>	25. Disposition Results			
21. Routing <input type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)							
22. <input type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING							
23. Project Engineering Disposition							
				26. QC Acceptance			
		QC ENGINEER		DATE			
		AUTHORIZED INSPECTOR		DATE			

Cont Pr. 2

Block 16 continued

approved - MFG. may continue work in accord with notes - revise and resubmit drw. (Welder assembly was not complete - circ 5" WF Beam 4' - 7 1/2" long was missing)

Sketch

Sk No

Shop Order

L-610-6-13 Rev 1

6-1120-704-12

3-10-77

2. Bechtel approved vendor sketch L-610-6-7, Rev 5 indicating a 1/4" X 1 1/4" X 2" carbon steel plate with (4) 13/16" holes and (1) 4" channel welded to the plate. Contrary to the above, the plate delivered was 1/4" X 10" X 2" carbon steel plate with (4) 13/16" holes centered at 7 1/2" instead of 9" and (1) 4" channel welded to the plate.

"Q" numbers are 4.101 and 4.102. Hold pending final disposition. ^{12EB} 12.31.76 hold tag(s) applied.

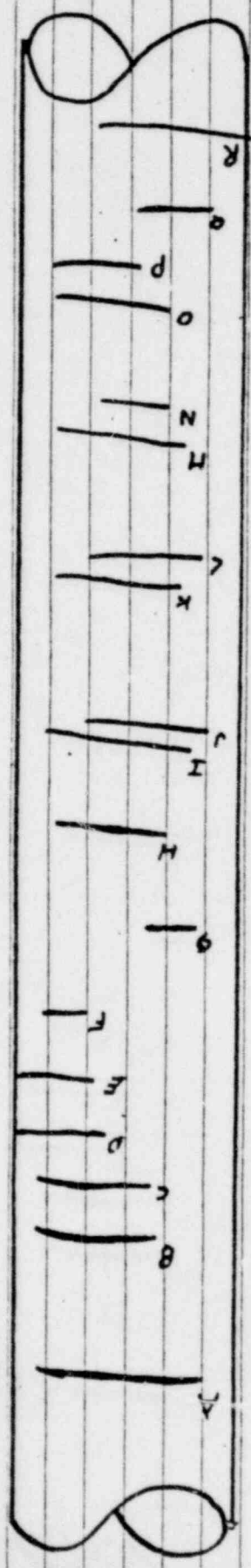
White Copy - Originator
 Canary Copy - Field Engineer
 Pink Copy - FOAE
 Goldenrod Copy - QC



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220			19. No. 649	20. Page 1 of 2
2. Unit(s) N/A	3. Drawing/Part No. 7220-M-166	Rev 0/Pl	4. Item Description Service Water Yard Pipe		5. Item Location 7'6" East of 7.9 line	
6. P.O. Or Spec No. N/A	7. Serial No. A-14	8. Replacement Part P/NT/A	SER NO. REV	9. Source Construction	10. Contractor/Supplier N/A	
11. Inspection Criteria <input checked="" type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. 7/1	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input type="checkbox"/> NO		13. SKETCH ATTACHED <input type="checkbox"/> YES <input type="checkbox"/> NO	
16. Nonconforming Condition: Service Water Yard Piping spool CHBC-15-5-A14 has been damaged by earth moving equipment. Damage observed included gouges of varying lengths and depths. (See attached sketch) Actual pipe wall thickness is indeterminate at this time. Pipe material SA-155, Cl2, Gr Kc 70, Assembly Carbon Steel. 26" Diameter, 0.375" nominal wall (Minimum wall 0.326"). Q Lic #4.192 One Hold Tag Applied. Hold For Engineering Disposition.				14. Discovered During <input type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST		
				15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD		
				24. Disposition Concurrence		
				REWORK	REJECT	REPAIR
				USE AS IS		
				PROJECT FIELD ENGINEER	DATE	
				PROJECT ENGINEER	DATE	
				PROJECT CONSTR QC ENGINEER	DATE	
				AUTHORIZED INSPECTOR	DATE	
17. Reported By <i>Michael D. ...</i>		Date 12-27-76	18. Validated By <i>...</i>		Date 12-27-76	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)						
22. <input type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING						
23. Project Engineering Disposition						
25. Disposition Results						
26. QC Acceptance						
				QC ENGINEER	DATE	
				AUTHORIZED INSPECTOR	DATE	

INITIAL INSPECTION REVEALED THE FOLLOWING FINDINGS:



7'-6" A

4'-0"

- A 14" x 1/2"
- B 7" x 1/4"
- C 6" x 3/16"
- D 5 3/4 x 3/8"
- E 6 1/2" x 5/16"
- F 3" x 1/4"
- G 2" x 1/4"
- H 3 1/2" x 1/2" x .032
- I 10" x 5/16" x .035
- J 8" x 1/4" x .049
- K 9 1/4" x 5/16" x .042
- L 6 1/2" x 3/16" x .048
- M 6" x 3/16" x .040
- N 3 1/2" x 1/8" x .045
- O 6" x 1/4" x .037
- P 5 7/8" x 1/8" x .045
- Q 4" x 3/16" x .046
- R 5 x 3/8" x .030

White Copy - Originator
 Canary Copy - Field Engineer
 Pink Copy - PQAE
 Goldenrod Copy - QC



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 650	20. Page 1 of 2
2. Unit(s) Unit 1	3. Drawing/Part No. MR-04-20X		Rev 6	4. Item Description Shop Fabricated Pipe Spool	
5. Item Location Roseville Laydown Area		6. P.O. Or Spec No. 7220-MLO4A-AC Rev 5-8638-14-1		7. Serial No. 17BB-5-8638-14-1	
8. Replacement Part P/N N/A		9. Source Supplier		10. Contractor/Supplier ITT Grinnell, Kernersville, N.C.	
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. P-1,00-615 M-201 Rev 7		12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input type="checkbox"/> NO	
13. SKETCH ATTACHED <input type="checkbox"/> YES <input type="checkbox"/> NO		14. Discovered During <input type="checkbox"/> REC'G <input type="checkbox"/> CONST <input type="checkbox"/> TEST		15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD	
16. Nonconforming Condition: Specification 7220-M-201, Rev 7, Para 6.6.1.b states in part: "For carbon steel Nuclear Class 1 and 2 piping, bagged silicagel desiccant shall be firmly attached to the interior side of the protective caps. The number and size of bags shall be in accordance with the manufacturer's recommendation for the enclosed volume of pipe. The number of bags used shall be marked on the outside of the pipe." Contrary to the above, pipe spool 17BB-5-8638-14-1 was delivered with contaminants				24. Disposition Concurrence	
				REWORK	REJECT
				REPAIR	USE AS IS
				PROJECT FIELD ENGINEER	DATE
				PROJECT ENGINEER	DATE
				PROJECT CONSTR QC ENGINEER	DATE
				AUTHORIZED INSPECTOR	DATE
17. Reported By <i>John R. Latham</i>		Date 12-29-76		18. Validated By <i>W.H. Almon</i>	
				Date 12-30-76	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING <input type="checkbox"/> TO OTHERS (SPECIFY)					
22. <input type="checkbox"/> Field Engineering Disposition <input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
23. Project Engineering Disposition					
25. Disposition Results					
26. QC Acceptance					
				QC ENGINEER	DATE
				AUTHORIZED INSPECTOR	DATE

Con't Pg 2

Block 16 continued

(rocks, sand and rust) inside but no desiccant. The spool was marked as containing two bags of desiccant.

"Q" number is 4,303. Hold pending final disposition. ^{125B} hold tag(s) applied.

1-3-77

White Copy - Originator
 Canary Copy - Field Engineer
 Pink Copy - PQAE
 Goldenrod Copy - QC



NONCONFORMANCE REPORT

5A-4-77

1. Project Name Midland		Job No. 7220			19. No. 651	20. Page 1 of 6
2. Unit(s) 1	3. Drawing/Part No. Isometric # M 612 Sh. 1	Rev 2/F1	4. Item Description Pipe Spool # 1GCB-2-S612-1-3		5. Item Location Combination Shop	
6. P.O. Or Spec No. 7220-1-124 AC	7. Serial No. N/A	8. Replacement Part SER NO. N/A P/N N/A REV N/A		9. Source Supplier	10. Contractor/Supplier TCC Corp.	
11. Inspection Criteria <input type="checkbox"/> DWG <input type="checkbox"/> SPEC <input checked="" type="checkbox"/> OTHER NO. N/A		IR NO. 2-23-62	12. ASME AUTHORIZED INSPECTION REQ'D <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		13. SKETCH ATTACHED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
16. Nonconforming Condition: Pipe Spool # 1GCB-2-S612-1-3 has been fabricated by ITT Grinnell as a 2 1/2" Pipe Spool. Contrary to the above, piping Isometric # M 612 Sh. 1, Rev. 2/F1 specifies this spool to be 3" instead of 2 1/2". Q No. 4.124. One Q.C. Hold Tag applied. Hold for Engineering Disposition.				24. Disposition Concurrence		
				REWORK	REJECT	REPAIR
				PROJECT FIELD ENGINEER	DATE	
				PROJECT ENGINEER	DATE	
				PROJECT CONSTR QC ENGINEER	DATE	
				AUTHORIZED INSPECTOR	DATE	
17. Reported By Frank Malvela		Date 12-30-76	18. Validated By P. J. Grinnell		Date 12-30-76	
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)				
22. <input type="checkbox"/> Field Engineering Disposition		<input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Response requested by 1/10/77				
Project Engineering is to initiate necessary action to correct the spool sheet and obtain the correct spool in accordance with the requirements of M612 Sh. 1 Rev. 2. We also recommend that the nonconforming spool be rejected and returned to Grinnell. Pipe spool 3" 1GCB-2-S612-1-3R is required at the site by 1/31/77, to support the construction schedule. R. DeLoach 1-4-77 G. Pulster 1-4-77						
23. Project Engineering Disposition						
26. QC Acceptance						
				QC ENGINEER	DATE	
				AUTHORIZED INSPECTOR	DATE	

RECEIVED

JAN 31 1975

BECHTEL POWER CORP.

JOB 7220

BY MJG

DEC 23 1974

VENDOR'S DRAWING REVIEW

1 Approved - Mfg. may proceed

2 Approved - submit final set - Mfg. may proceed

3 Approved - submit set for review and return for final set - Mfg. may proceed as approved

4 Not approved - return for revision

5 Rejected - return for revision

Approved by _____ Date _____

Reviewed _____ JCB NO. 7220

BY MJG DATE 1/22/75

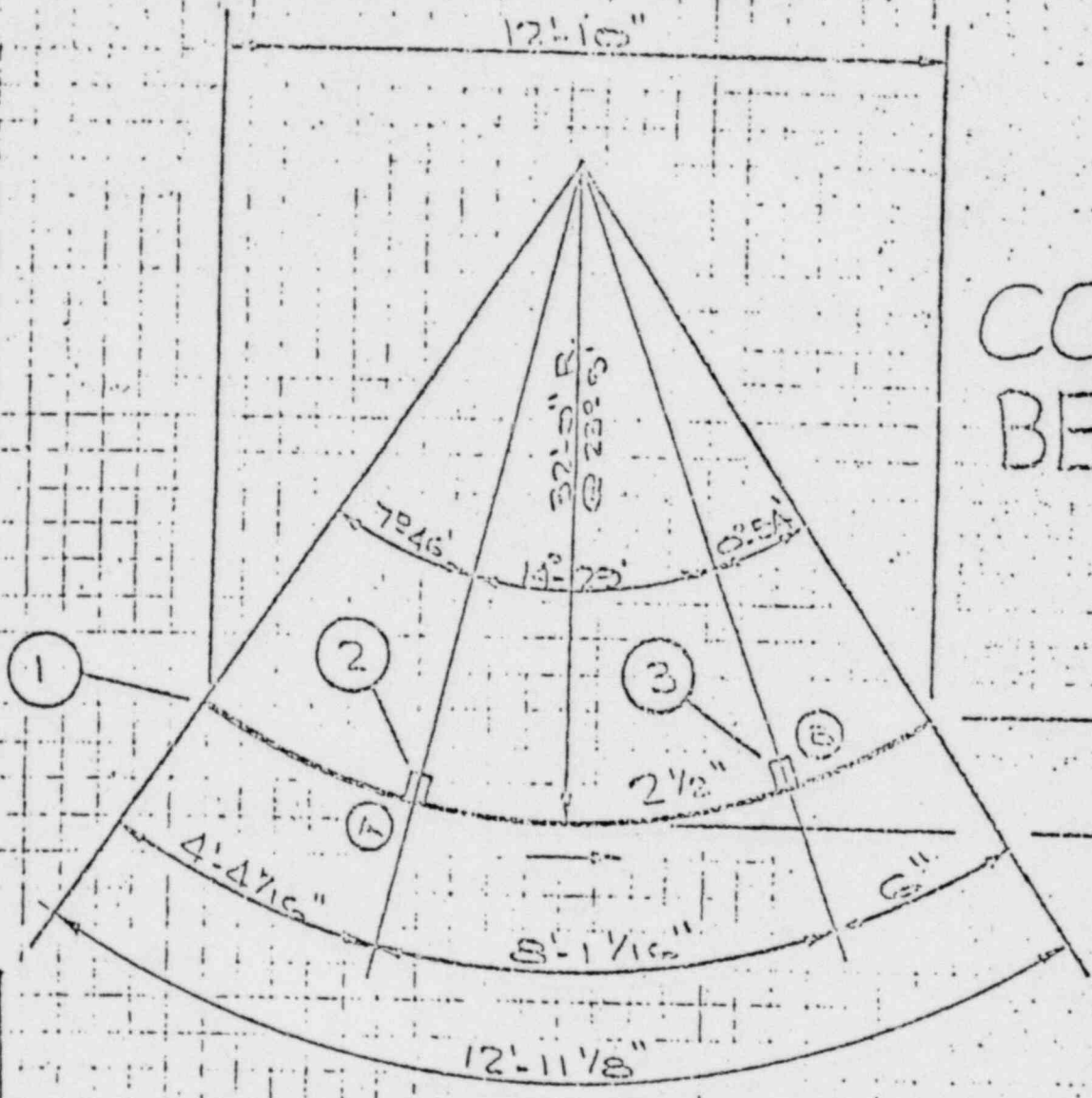
MIDLAND PLANT UNITS 1 & 2
CONSUMERS POWER CO

DISTRIBUTION		
	DATE	DATE
VENDOR	RH	
CLIENT	8/85	
FIELD	RH	
AREA		
H. & V.		
PLANT		
ENGINEER		
DESIGNER		
INSTR.		
REVISION		
DATE		
PROJECT		
SCALE		
REVISION	011	
TICKET #		
BECHTEL CO.		

PLEASE RESUBMIT
CORRECTIONS WITHIN
____ WEEKS

UNCONTROLLED

7220-M104A-733-2



COLD
BEND

Q

FLATH = 12'-11 1/8"

ASME CODE APPROVED

STN. STL.

37 1/2° BEVEL ENDS

CLASS NUG. GR. 2 LINE SPEC. 1-GGB APP. CODE ASME SECTION NO. REQ'D 1

RADIOGRAPHY (RT)	SPECIAL MARKING	PREHEAT	CERT. OF COMPLIANCE
MAG. PARTICLE (MT)	SPECIAL CLEANING	HEAT TREAT	MILL TEST REPORTS
FLUORESCENT (FT)	PAINTING	CODE STAMP	DATA REPORTS

SYSTEM SPRAY SYS. FAB. SPECS. ES-350N, ES-NV-19

CF. DRWG NO. M-612 SMT. 1 A PRESS. 200 PSI. TEMP. 350° F. WT. 90 LBS.

REGISTERED MP-76-72 1-GGB-2-B-612-1-B MP-76-72 SK. NO. _____

Contract No. 7251 Dept. _____
 Name CONSUMERS POWER COMPANY Rev. PKC 12/13/74
MIDLAND, MICHIGAN Chk'd _____ Required Date _____

ITEM	PRODUCT SYMBOL	%	MAT. DESC. AND LABOR OPERATION	%	QUANTITY	STD. UNIT COST	DISC.	NET MATERIAL VALUE	
					ISSUED	CTY. REQ.			
1			2 1/2" SCH. 40S 5/8" EP OR WLD. PIPE ASME SA-312 3120R 316 TP304 12 1/2"			1 PC			
2			2 1/2 x 1" 3000# TOL ASME SA-102 F-304			1			
3			2 1/2 x 1" - C -			1			
			2 1/2" SCH. 40S 5/8" EP 1" 5/8" EP			2			
			2 1/2" SCH. 40S 5/8" # 3/2 BEND, AGE 12 1/2" (BEND. GREATER THAN 7 DIA.) (COLD BEND)			1			
			2 1/2" SCH. 40S 5/8" PULLING & HOLDING TANGENT			2			
			1" 3000# 5/8" TOL WLD.			2			
TOTAL VALUE									

9-27-74
 Date Prepared: _____
 Prepared By: ACE
 Code Summary: _____
 Pipes Released: _____
 Pipes Received: _____
 Unit of Measure: _____
 E=Each
 F=Foot
 P=Pound
 Fittings Released: _____
 Fittings Received: _____
 Deliver To: _____
 Station No.: _____
 Location: _____
 (NUC-C-2)
 Reg. No. HP-76-72 1-6013-2-3-012-1-3
 Pt. No. _____ Sketch No. HP-76-72

Contract No. 70021

Dept. _____

Name CONSUMERS POWER COMPANY
MIDLAND, MICHIGAN

Rev. PKC-12/13/74

Chkd _____ Required Date _____

ITE	PRODUCT SYMBOL	%	MAT. DESC. AND LABOR OPERATION	U/ft	QUANTITY		STO. UNIT COST	DISC.	NET MATERIAL VALUE
					BACK ORDER	ISSUED			
			2 1/2" SCH. 40S 51S 37 1/2"						
			BE ON BEND.						
			2 1/2" SCH. 40S 51S CUTS.					2	
			1/4" 51S FILLET WELD, CODE.						
			FR. LINE IN.					4	
			1" 300# LP 51S TOH WLD.					2	
			2 1/2" SCH. 40S LP 51S						
			BEND APP. 1 IN. FT.					12-1 1/2"	
			2 1/2" SCH. 40S 51S UT						
			BEND TEST ON HEEL						
			& 60° IN BOTH DIRECTIONS						
			AROUND PIPE						
			@ 6" INTERVALS.					25	
			PH TEST					1	
			STORAGE CONTROL						
			OF ELECTRODES.					1	
			TRANSFER TRACIBILITY					1	
			PROD. PINNER (E105A)					1	
			MILL TEST REPORT					6	

TOTAL VALUE

Exp. No. HP-76-72

1-9012-2-3-012-1-3

Sketch No. HP-76-72

Contract No: 7921

Name: CONSUMERS POWER COMPANY
MIDLAND, MICHIGAN

Dept. _____
Rev. PFC 12/3/74

Chkd _____ Required Date _____

PRODUCT SYMBOL	%	MAT. DESC. AND LABOR OPERATION	1/4	QUANTITY		STD. UNIT COST	DISC.	NET MATERIAL VALUE
				ORDER	ISSUED			
		DOCUMENTATION						
		TRAVELER						
		INS. INSPECTION						
		NPT CODE STAMP						
		LPOE CODE FOR 1/4" S/S						
		ELECT WLD. LINING						
		MARKING MAIL FOR TRACEABILITY						
		SPEC. CONC. LOSS						
		"Documentation of Approval Level"						
TOTAL VALUE								



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 652	20. Page 1 of 1		
2. Unit(s) Common	3. Drawing/Part No. See Block 16	Rev N/A	4. Item Description Structural Steel Beams	5. Item Location Outside QC Hold Area			
6. P.O. Or-Spec-No. 7220-C-38AC Rev 8	7. Serial No. See Block 16	8. Replacement Part P/N N/A REV _____ SER NO. _____	9. Source Supplier	10. Contractor/Supplier Ingalls Iron Works			
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER NO. C-38 Rev 7		IR NO. R-1.00-514	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input checked="" type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD	15. Equip Furnished By	
16. Nonconforming Condition: American Welding Standard D1.1.72, Section 3, Para 3.2.4 states: "Re-entrant corners, except for the corners of weld access cope holes adjacent to a flange, shall be filleted to a radius of not less than 1/4 in. for buildings and tubular structures and 3/4 in. for bridges. The fillet and its adjacent cut shall meet without offset or cutting past the point of tangency." Contrary to the above, beams 640-D3^H, 642-D3^H have copes that are cut past the point of tangency. "9" number is 1.201. Hold pending final disposition, _____ hold tag(s) applied.				24. Disposition Concurrence			
				REWORK	REJECT	REPAIR	USE AS IS
				PROJECT FIELD ENGINEER	DATE		
				PROJECT ENGINEER	DATE		
				PROJECT CONSTR QC ENGINEER	DATE		
				AUTHORIZED INSPECTOR	DATE		
17. Reported By <i>Charles Quinn</i>	Date 12-28-76	18. Validated By <i>[Signature]</i>	Date 12-30-76	25. Disposition Results			
21. Routing <input checked="" type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)					
22. <input type="checkbox"/> Field Engineering Disposition		<input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
23. Project Engineering Disposition							
26. QC Acceptance							
				QC ENGINEER	DATE		
				AUTHORIZED INSPECTOR	D		



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 553	20. Page 1 of 1			
2. Unit(s) 2	3. Drawing/Part No. 7220-M-611 Sht 5	Rev 4/F3	4. Item Description Gate Valve 18HCB-GT-2MO-1310-B-RL	5. Item Location Aux Bldg, Elev. 568'				
6. P.O. Or Spec No. N/A	7. Serial No. 5205-05	8. Replacement Part P/N N/A REV _____	9. Source Construction	10. Contractor/Supplier N/A				
11. Inspection Criteria <input type="checkbox"/> DWC <input type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. P-1,30-611-5 NO. M-611-Sht 5 4/F3	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input type="checkbox"/> FLD		
16. Nonconforming Condition: Gate Valve 18HCB-GT-2MO-1310-B-RL, being prepared for installation in the Auxiliary Building, has the handle to the manual operator broken off, PO 7220-M-125CC, Item 17.8.			24. Disposition Concurrence					
Q List #4.116.			REWORK			REJECT	REPAIR	USE AS IS
One QC Hold Tag applied.			PROJECT FIELD ENGINEER			DATE		
Hold for Engineering Disposition.			PROJECT ENGINEER			DATE		
			PROJECT CONSTR QC ENGINEER			DATE		
			AUTHORIZED INSPECTOR			DATE		
17. Reported By PIMP	Date 12-30-76	18. Validated By PIMP	Date 12-30-76	25. Disposition Results				
21. Routing <input type="checkbox"/> TO FIELD ENGINEERING		<input type="checkbox"/> TO OTHERS (SPECIFY)						
22. <input type="checkbox"/> Field Engineering Disposition		<input type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING						
23. Project Engineering Disposition								
				26. QC Acceptance				
				QC ENGINEER		DATE		
				AUTHORIZED INSPECTOR		DATE		



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220			19. No. 654	20. Page 1 of 1	
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Compressive Strength Cylinders		5. Item Location On-Site test lab		
6. P.O. or Spec No. C-208 Rev. 8	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A	SER NO. N/A	9. Source Subcontractor	10. Contractor/Supplier United States Testing Co.		
11. Inspection Criteria <input type="checkbox"/> DWG <input checked="" type="checkbox"/> SPEC <input type="checkbox"/> OTHER		IR NO. SC 1.05-6 NO. C-208 Rev. 8	12. ASME AUTHORIZED INSPECTION REQ'D <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	13. SKETCH ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. Discovered During <input type="checkbox"/> REC:G <input type="checkbox"/> CONST <input type="checkbox"/> TEST	15. Equip Furnished By <input type="checkbox"/> CLIENT <input type="checkbox"/> ENG <input checked="" type="checkbox"/> FLD	
16. Nonconforming Condition: Specification C-208 paragraph 7.3.2 states in part: "For class I structures, one set of at least six specimens shall be taken with intervals between each set not exceeding 100 cubic yards of concrete batched for each mix design."				24. Disposition Concurrence			
Contrary to this, 13 1/4 cubic yards of concrete were placed on 11-10-76, with only one set of record cylinders and one set of field cylinders being cast. Placement $\frac{1}{4}$ was A (6 1/6) b' and the concrete mix was D-2. No Hold Tags Applied. "Q;" No. 6.101 Hold For Engineering Disposition.				REWORK			REJECT
				REPAIR			USE AS IS
17. Reported By <i>Robert Housley</i> Date 12/31/76				18. Validated By <i>Ed Mally</i> Date 1-13-77		25. Disposition Results	
21. Routing <input type="checkbox"/> TO FIELD ENGINEERING <input checked="" type="checkbox"/> TO OTHERS (SPECIFY)							
22. <input type="checkbox"/> Field Engineering Disposition <input checked="" type="checkbox"/> FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING							
23. Project Engineering Disposition							
				26. QC Acceptance			
				QC ENGINEER		DATE	
				AUTHORIZED INSPECTOR			

QUALITY AUDIT FINDING

AUDIT DATE
11/29-12/3/76
AUDIT IDENT.
SA-13 (15-1-S)

PROJECT/COMPANY/SELLER Midland Units 1 & 2		TYPE OF AUDIT Construction	XX FIELD OFFICE	AUDITOR R. C. Hollar
EM 15-1-P-5	CHECKLIST ITEM 8b	WHERE FOUND N/A	DISCUSSED WITH	

CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.
SF/PSP G-3.2 Rev. 1 para. 4.5.3

EXPLANATION
"After the disposition NCR has been entered in the log, the Project Field Quality Control Engineer shall route copies of the NCR to the Project Field Engineer and Project Field Superintendent for implementation of the approved disposition. . . "

FINDING
Contrary to the requirement, copies of dispositioned NCRs are not being distributed to the Project Field Superintendent.

- RECOMMENDED CORRECTIVE ACTION
- 1) Determine who needs to receive dispositioned NCRs, since the Midland organization does not have a "Project Field Superintendent", and properly identify in procedure.
 - 2) After determining, in (1) above, who should receive dispositioned NCRs, backfit as necessary.
 - 3) Instruct QC personnel, responsible for NCR distribution, to provide dispositioned NCRs to the function(s) identified in(1) above.

SCHEDULE COMPLETION DATE 1/3/77	RESPONSIBILITY FOR CORRECTIVE ACTION PFQCE
------------------------------------	---

CORRECTIVE ACTION TAKEN

DATE COMPLETED	SUBMITTED BY RESPONSIBLE AUTHORITY	DATE

CORRECTIVE ACTION VERIFIED BY QAC

QUALITY AUDIT FINDING

AUDIT DATE 11/29-12/3/76
AUDIT IDENT. SA-14 (15-1-5)
AUDITOR R. C. Hollar
DISCUSSED WITH

ACT/DEPARTMENT/SELLER Midland Units 1 & 2	TYPE OF AUDIT Construction	XX FIELD OFFICE
NCR # 1-P-5	CHECKLIST ITEM 5a	WHERE FOUND N/A

CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.
SF/PSP G-3.2 Rev. 1 and SF/PSP G-7.1 Rev. 2

- SF/PSP G-3.2 para. 4.2.3 "NCRs shall be prepared in accordance with detailed instructions, and the standard form for recording the required information. See Appendix A."
- G-3.2 para. 4.1.2 "Open and validated NCRs which are subsequently found to be incomplete, illegible or inaccurate shall be returned to the Project Field Quality Control Engineer for correction and revalidation. . ."
- SF/PSP G-7.1 para. 4.5.1 "Corrections to construction Quality Assurance records shall identify the person who made the correction and the date of the correction. Corrections shall be authorized by the organization with responsibility (OVER)"

Contrary to the above the following NCRs were not prepared in accordance with the instructions identified in Appendix A of SF/PSP G-3.2, or corrected per SF/PSP G-7.1:

NCR #	DISCREPANCY
a) 594, 595, 605	a) Block #11 incomplete - inspection criteria was indicated, but the applicable criteria document number was not identified.
b) 592	b) Block #21 incomplete - routing was not identified
c) 597	c) "Rev" block applicable to the "Drawing/Part No." block #3 was incomplete
d) 596 (Page 2), 601, 608	d) Corrections to NCRs not in accordance with instructions identified above.

- 1) Review open NCRs and correct as necessary.
- 2) Reinstruct Discipline Lead Field Quality Control Engineers in (a) the review of NCR per instruction identified in Appendix A of SF/PSP G-3.2 and (b) validate corrections to NCR per instruction identified in para. 4.5.1. of SF/PSP G-7.1

SCHEDULE COMPLETION DATE 1-3-77	RESPONSIBILITY FOR CORRECTIVE ACTION PFOCE
------------------------------------	---

SUBMITTED BY RESPONSIBLE AUTHORITY	DATE
CORRECTIVE ACTION VERIFIED BY QA	

BLOCK 10 CONTINUED:

for preparation of the original affected record. The appropriate Lead Discipline Construction Quality Control Engineer shall review, initial and date all changes."

QUALITY AUDIT FINDING

AUDIT DATE	12/20-22/76
AUDIT IDENT.	SA-15 (9-1-2)
AUDITOR	R. C. Hollar
DISCUSSED WITH	

PROJECT/DEPARTMENT/SELLER Mid Units 1 & 2	TYPE OF AUDIT Project Construction	<input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE	AUDITOR R. C. Hollar
CHECKLIST ITEM 1/A	CHECKLIST ITEM 6	WHERE FOUND Document Control	DISCUSSED WITH

CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.
FPG-8, Rev. 2 Part III

NOTATION

Para. 4.1 "A Tickler Log shall be established (Figure E)."

Para. 4.2 "All incoming and outgoing communication(s) that require(s) response in order to effect "Closed Loop" action will be recorded in this log. Certain "self-closing" communications need not be entered into this log (reference 3.0)."

DISCREPANCY

Contrary to the above requirements the following discrepancies were noted:

- 1) A Tickler Log for outgoing correspondence requiring response has not been established.
- 2) Incoming correspondence requiring response as identified in "Incoming Communication Log" is not consistently being logged in the Tickler Log (incoming). Several occurrences are as follows:
 - AIBC-5 dated 11/2/76
 - FSC-45-107 dated 9/1/76
 - FSC-45-113 dated 10/18/76
 - FSC-45-118 dated 12/10/76
 - FSC-64-20 dated 10/20/76
 - BMBC-71 dated 11/19/76

SEE PAGE 2 FOR CONTINUATION

- RECOMMENDED CORRECTIVE ACTION
- 1) Establish a Tickler Log for outgoing correspondence requiring response in accordance with procedures defined above.
 - 2) Review correspondence logs incoming and outgoing with the Tickler logs and assure they are consistent.
 - 3) Identify outgoing correspondence which have delinquent response and issue "Follow-up for Action Communication" or "Follow-up Memo to Leads."

SCHEDULED COMPLETION DATE 2-25-77	RESPONSIBILITY FOR CORRECTIVE ACTION Project Superintendent
--------------------------------------	--

COMPLETED	SUBMITTED BY RESPONSIBLE AUTHORITY	DATE
-----------	------------------------------------	------

CORRECTIVE ACTION VERIFIED BY QA	DATE
----------------------------------	------

BLOCK 11 continued:

- 3) Issuance of Follow-up Forms on delinquent outgoing correspondence requiring response is not consistently being performed. Several examples are as follows:

BCBW-5 dated 9-28-76
BCBW-3 dated 8-30-76
C-18-B-11 dated 10-12-76
C-39-214 dated 10-14-76
C-61-B78 dated 10-7-76
C-71-B-72 dated 11-8-76

QUALITY AUDIT FINDING

AUDIT DATE
12/20-22/76

AUDIT IDENT.
SA-16 (9-1-2)

PROJECT/CLIENT/SELLER Midland Units 1 & 2		TYPE OF AUDIT Project Construction		XXX FIELD OFFICE	AUDITOR R. C. Hollar
SM N/A	CHECKLIST ITEM 6	WHERE FOUND Document Control		DISCUSSED WITH	

CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.
FPG-8 Rev. 2 General

STATION

Para 2.1 "The Document Control Center is responsible for implementing a communication control system, administered by Field Project Document Control Personnel, to handle and control project communications."

FINDING

Contrary to the above requirement, the incoming and outgoing Communication Logs reveal an excess of one hundred correspondence items requiring response. These are not in the current "Tickler System". Examples of these correspondence are as follows:

M-1-9 dated 2/11/75	M-1-9 dated 2/4/75
C-208-61 dated 5/12/75	BCCC-1924 dated 8/3/76
C-208-2 dated 2/12/74	BCBE-814 dated 6/11/76
	BCCA-1115 dated 7/12/76

RECOMMENDED CORRECTIVE ACTION

- Document Control provide a listing of all open correspondence (outgoing and incoming) requiring a response to PFE for evaluation.
- PFE review the open correspondence listing, identifying the correspondence which a response is necessary, revising the response status of all unnecessary to "no response required", and direct responsible engineers to obtain closeout.
- Revise Communication Logs (outgoing & incoming) as indicated from PFE's evaluation and incorporate into the "Tickler System"

DATE COMPLETION DATE 3-25-77	RESPONSIBILITY FOR CORRECTIVE ACTION Project Superintendent
---------------------------------	--

CORRECTIVE ACTION TAKEN

COMPLETED

SUBMITTED BY RESPONSIBLE AUTHORITY

CORRECTIVE ACTION VERIFIED BY OAE

DATE

8/20/76

N/A

B.T. Stojkov
K. Ward
D. Parker

1 & 2

Construction

FIELD
 OFFICE

2-P-1

1.3

D.C. Records Vault

DO-MT, Rev. 0, Para. 1.3; NEPO-PT, Rev. 0, Para. 1.3; NEPO-UT, Rev. 1, Para 1.3

Para. 1.3 of NEPO-MT, NEPO-PT and NEPO-UT states in part: "Certification shall be by Bechtel NDE Level III Examiner."

Certification of the following NDE personnel was done by the manager of M & OS (R. Smith, Sr.) who is not a Bechtel NDE Level III Examiner.

- Anderson, T.O.-MT & PT
- Condie, R.S.-PT
- DiCarlo, P.C.-MT & PT
- Jackson, B.G.-MT
- Lussier, R.G.-PT
- McLean, T.A.-PT
- Pardee, W.M.-MT & PT
- Ratter, P.W.-MT & PT

RECEIVED

NOV 15 1976

BECHTEL POWER CORP.
503 7220

for JW

Revise the controlling procedures to remove the requirement for certification by NDE Level III Examiner.

Note: This change has already been made to NEPO-RT in response to Consumers Power (OF-92)

10/20/76

M & OS - D. Parker

SEE IOM D. S. PARKER TO R. L. CASTLEBERRY DATED OCTOBER 6, 1976 (Copy Attached).

SUBJECT NEPO'S REMOVED FROM SPECIFICATION 7220-G-27 FOR SCN G27-6012

Brent T. Stojkov

12/3/76

R. L. Castleberry

October 6, 1976

Midland Project

7220-G-27

Revision

File: 7220 - General (P8-113)

D. S. Parker (DSP-106-4)

R&E/Materials & Quality Services

R. C. Bertossa

J. Klacking

R. Torres

K. Ward

Ann Arbor Office

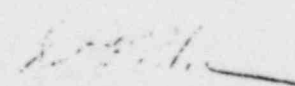
9(B)2

Ext. 7001

REFERENCE: QAF-132 DATED 8/20/76.

QAF-132 was written against NEPQ-MT, Rev. 0, and NEPQ-PT, Rev. 0, and NEPQ-UT, Rev. 1, and concerns the certification of NDE examiners by a Bechtel NDE Level III Examiner. Paragraph 1.3 of these specifications states in part: "Certification shall be by a Bechtel NDE Level III Examiner." Later revisions of these specifications remove the requirement for certification by an NDE Level III Examiner.

Rather than issue these new revisions to the jobsite it is suggested that the resolution to QAF-132 be to withdraw NEPQ-MT, NEPQ-PT, NEPQ-RT, NEPQ-VB, and NEPQ-UT from 7220-G-27. These procedures are not necessary to field operations since all examinations are performed by M&QS Level III Examiners. M&QS performs examinations using the latest revisions of these specifications which can lead to unnecessary conflict between paperwork in G-27 and the examiner.


D. S. Parker
Materials Engineering Supervisor

DSP/ar

343
 Nov. 9-11, 1976
 AUDIT IDENT. NO.
 10-3-2

PROJECT/DEPARTMENT/SECTOR Midland Units 1 & 2	TYPE OF AUDIT Construction	XX FIELD OFFICE	AUDITOR G. A. Waldrop
CHECKLIST ITEM N/A	WHERE FOUND Quality Control Office		DISCUSSED WITH J. Connolly

SF/PSP G-7.1 Rev. 2, Paragraph 5.1.4

Para. 5.1.4 states: "The Project Field Quality Control Engineer or his designee shall review the Correspondence Control Log monthly to determine that timely response and follow-up action has been taken to obtain closeout."

ROUTE	INFO	ACT.
LOGAE	✓	
CIVIL		
ELEC.		
MECH.	PDS	
PIPING		PDS

There is no objective evidence that the Correspondence Control Log was reviewed during the months of March, April, July, August and October, 1976.

The review for November was completed during the audit.

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 BECHTEL POWER CORP.
 JOB 7220
 PER: *[Signature]*

UNDEVELOPED CORRECTIVE ACTION

Implement the review required by the controlling procedure. Instruct and indoctrinate personnel as required.

DATE COMPLETION DATE Nov. 19, 1976	RESPONSIBILITY FOR CORRECTIVE ACTION PEOCE
--	--

The appropriate personnel have been instructed in the referenced requirement and the proper implementation has been initiated.

SUBMITTED BY RESPONSIBLE AUTHORITY <i>[Signature]</i>	DATE 12-13-76
---	-------------------------

Specification limits are 60 to 80°F.

NOTE: The box in which the cylinders were stored was within a heated enclosure which was between 50°F and 75°F during the same period. It appears the high-low thermometer indicator was not properly set as indicated above. The cylinders in question are for information only, not for record testing.

Based on the above Quality Control should investigate the actions taken by U. S. Testing personnel and assure they are aware of the need for recording actual results (even if apparently in error) and identifying this type of problem to Q.C.

CORRECTIVE ACTION RECOMMENDED CONTINUED:

in for the first 20+4 hours. This will reduce the effect on the high-low thermometer of the Tab door opening and closing.

- 3) Hold training with the cognizant lab QCE's emphasizing the need to record all nonconforming conditions no matter what the cause.

QUALITY ASSURANCE DISCREPANCY REPORT

QADR-114

4. ISSUE DATE

July 15, 1976

5. QAD PREPARED BY:

G. A. Waldrop

6. DISCUSSED WITH

J. P. Connolly

1. PROJECT/DEPT./CONTRACTOR

Midland Units 1 & 2

2. POINT OF ORIGIN

FIELD

OFFICE

6. WORK PLAN DATE

N/A

7. CHECKLIST ITEM

N/A

8. WHERE FOUND

N/A

10. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.

NOAM IV Number 1, Revision 2

11. QUOTATION

NOAM IV Number 1, paragraph 3.2, f states: "Specific work plan/procedures including all revisions and amendments shall be subject to review by the Project Field Quality Control Engineer for compatibility with the requirements of the applicable Quality Control Inspection Plans."

NOAM IV Number 1, paragraph 3.2b states: "General and standard construction work plan/procedures covered in (c) and (d) below, including all revisions and amendments shall be subject to review by the Chief Field Quality Control Engineer for compatibility with QC procedures and inspection plans."

12. DISCREPANCY DESCRIPTION

Contrary to the foregoing, not all of the field generated procedures have been reviewed by Quality Control.

EXAMPLES ARE: FPG-1 Rev. 4, FPG-5 Rev. 1, FPG-7 Rev. 2, FPG-8 Rev. 1, FPG-10 Rev. 2, FPG-11 Rev. 1, FPG-13 Rev. 1, FPG-14 Rev. 1, FPE-1 Rev. 1, FPW-1 Rev. 0, SPPC-3 Rev. 4, SPPG-1 Rev. 2, SPPM Rev. 1 and FW-1 Rev. 1

13. RECOMMENDED CORRECTIVE ACTION

1. Revise FPG-1 to include Quality Control in the review cycle.
2. Review all field generated procedures currently in use at the site. This review must include objective evidence of what criteria was used and the results of the review.

14. SCHEDULED COMPLETION

DATE 9-17-76

15. RESPONSIBILITY FOR CORRECTIVE ACTION

1) Project Superintendent

2) PFOCE

16. CORRECTIVE ACTION TAKEN

FPG-1 revised to include QC review. FPG-1, rev 5 approved and issued on 11/18/76

17. DATE COMPLETED

11/18/76

18. SUBMITTED BY RESPONSIBLE AUTHORITY

AG Boon for J. F. Neuzen

19. CORRECTIVE ACTION VERIFIED BY QAD

Don L. Ireland

20. DATE

12/23/76

QUALITY ASSURANCE DISCREPANCY REPORT

DAUR-114
4. ISSUE DATE

6. PROJECT/DEPT./CONTRACTOR Midland Units 1 & 2		2. POINT OF ORIGIN <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE	July 15, 1976
3. WORK PLAN DATE N/A	7. CHECKLIST ITEM N/A	8. WHERE FOUND N/A	5. QAD PREPARED BY: G. A. Waldrop
10. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. NOAM IV Number 1, Revision 2			6. DISCUSSED WITH J. P. Connolly

11. QUOTATION
NOAM IV Number 1, paragraph 3.2. f states: "Specific work plan/procedures including all revisions and amendments shall be subject to review by the Project Field Quality Control Engineer for compatibility with the requirements of the applicable Quality Control Inspection Plans." NOAM IV Number 1, paragraph 3.2b states: "General and standard construction work plan/procedures covered in (c) and (d) below, including all revisions and amendments shall be subject to review by the Chief Field Quality Control Engineer for compatibility with QC procedures and inspection plans."

12. DISCREPANCY DESCRIPTION
Contrary to the foregoing, not all of the field generated procedures have been reviewed by Quality Control.
PROCEDURES ARE: FPG-1 Rev. 4, FPG-5 Rev. 1, FPG-7 Rev. 2, FPG-8 Rev. 1, FPG-10 Rev. 2, FPG-11 Rev. 1, FPG-13 Rev. 1, FPG-14 Rev. 1, FPE-1 Rev. 1, FPW-1 Rev. 0, SPPC-3 Rev. 4, SPPG-1 Rev. 2, SPPM Rev. 1 and FW-1 Rev. 1

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JCA 7220

13. RECOMMENDED CORRECTIVE ACTION
1. Revise FPG-1 to include Quality Control in the review cycle.
2. Review all field generated procedures currently in use at the site. This review must include objective evidence of what criteria was used and the results of the review.

14. SCHEDULED COMPLETION DATE 9-17-76
15. RESPONSIBILITY FOR CORRECTIVE ACTION
1) Project Superintendent
2) PFOCE
CORRECTIVE ACTION TAKEN
Item #2 Review and approval of all field generated procedures has been accomplished in accordance with instructions given by the Chief Field Quality Control Engineer. The documentation of this review is on file in the Job Site Q. C. Vault.

16. DATE COMPLETED 7-26-76
17. SUBMITTED BY RESPONSIBLE AUTHORITY [Signature]
18. CORRECTIVE ACTION VERIFIED BY QAD [Signature] LGAE
19. DATE 12/23/76

1. PROJECT/SECT./CONTRACTOR
Midland Units 1 & 2

2. POINT OF ORIGIN
FIELD

3. WHERE FOUND
OFFICE

4. QAD PREPARED BY:
J. C. Book

5. WORK PLAN DATE
10-31-76

6. CHECKLIST ITEM
123

7. DISCUSSED WITH
T. J. H. Foster

10. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.
7220-C-211, R 10.1, Para. 5.6.2

11. QUOTATION

"Material delivered to the job site for use as structural backfill shall be visually inspected and tested in accordance with ASTM C-135. The contractor's representative shall receive a written report of the testing results."

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BECHTEL POWER CORP
JOB 7220
PER *Sw*

12. DISCREPANCY DESCRIPTION

Structural backfill material was delivered to the site on Sept. 13, Sept. 14, and Sept. 15. There were no tests performed for this material that was delivered.

NOTE: Records for receipt of structural backfill are kept by Cost & Purchasing departments. There is no positive system in use by DST or DC to ensure samples for each days delivery. Records for all of 1275 were checked.

13. RECOMMENDED CORRECTIVE ACTION

- 1) Issue a notice to forward a report on the subject materials.
- 2) Develop adequate system to preclude material not being tested.

STATE		
LOCAL		
FED		X
NOT		35
PREP		
DATE		

14. SCREENED CORRECTION
DATE 11/19/76

15. RESPONSIBILITY FOR CORRECTIVE ACTION
EPRI

16. CORRECTIVE ACTION TAKEN

- 1) NCR No. 578 was issued on October 26, 1976.
- 2) To preclude repetition of this problem the following system is used:
 - a) Each days deliver of structural backfill is stockpiled separately. Continued.

DATE COMPLETED
12-17-76

APPROVED BY REPRESENTATIVE AUTHORITY
J. C. Book JCE

19. CORRECTIVE ACTION VERIFIED BY
J. C. Book

20. DATE
12-17-76

QUALITY ASSURANCE DISCREPANCY REPORT

No. SD-6

- b) On the following day the responsible field engineer verifies that the material was tested and is acceptable.
- c) If the material wasn't tested a test will be taken at this time or if the material is acceptable it will be placed in the acceptable pile.

QUALITY ACTION REQUEST

NOV 6 1976
BECHTEL POWER CORP.
503 7270

From: G. L. Richardson 1

To: J. F. Newgen 2 Control Document ref.: PSP G-3.2 App. C, Rev. 1 3 O' R Ident. No.: SD-7 4

Action Requested: 5
The reference criteria states in part for QC hold tag preparation: "Indicate whether item can be released for further processing and what the limitations are, ..."

Contrary to the above a Decay Heat Removal Pump (B&W 2DA-PIB) was noted by the Client QA to be in process of installation without further processing being indicated on the hold tag. It should be noted that proper release had been obtained on the NCR form (No. 560) but the NCR tag had not been updated. Q.C. has subsequently updated the tag and work is progressing in compliance with the program.

A similar problem where the crafts had done additional work where not allowed by the NCR tag is described on QADR SD-3 dated 10/7/76

Recognizing the fact that the NCR tag is the positive means provided to control nonconforming items, additional training of field engineers, superintendents and crafts is requested to assure that further processing of nonconforming items will only be allowed when specifically identified on the Hold Tag. This training can be in the form of an IOM or field instruction.

Signature: *G. L. Richardson* 6 Date: 11/2/76 7 Reply Requested by: 12-3-76 8

Reply: 9
The responsible personnel have been verbally notified that proper compliance to the Q.C. hold tag is mandatory. In addition, a training session was held on September 30, 1976 to inform personnel of the proper implementation of SF/PSP G-3.2 requirements as applicable to this project (Ref. BT 102). In addition, the training sessions on the NQAM given by QA has been revised to include a segment on QC hold tags. This training was conducted on 12-3-76 (Ref. BT-106)

and will be conducted as necessary in the future. *IS 12-15-76*

Signature: *T. C. Valenzano* 10 Date: 11/24/76 11
Attn: Verified: *D. L. Richardson* 12 Date: 12/15/76 13

	INFO.	ACT.
ROUTE		
QA		
LQAE		
CIVIL		
ELEC.		
MECH.		
PIPING		
FILE		

8/2/74

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G1001649-05

QUALITY ACTION REQUEST

NOV 10 1976
 TECHNICAL POWER CORP.
 307 EAST

From: B. T. Stojkov		①
To: J. F. Newgen	② Control Document ref.: WFMC-1 Rev. 1	③ QAR Ident. No.: SD-9
Action Requested: NCR-598 identifies a nonconforming weld (FW-10, dwg. M-610, sh. 7) resulting from a welder having two different classifications of weld rod (309L-16 and 308L) in his possession in the same rod warmer. This is contrary to the requirements of WFMC-1, Paragraph 6.7. Please initiate whatever corrective actions considered appropriate to preclude recurrence of this procedure violation.		⑤
		QA
		QC
		LOG
		CIVIL
		ELEC
		MACH
		PIPING
Signature: <i>B.T. Stojkov</i>	⑥ Date: 11-11-76	⑦ Reply Requested by: 12-10-76
Reply: The following action has been taken to preclude recurrence of this procedure violation:	⑧	
1) Training was conducted for all Rod Room attendents on WFMC-1 on Nov. 12, 1976 by D. M. Mathews, C. R. Renfro of Welding Engineering and A. Boulden of QC. 2) Items were also covered during the regular Welding Engineers Meeting on same date. 3) All type 309 ^{COATED DW 12-14-76} bare wire was removed from rod rooms 1 and 2 and stored in the Combo shop rod room. It will be issued in a blue bottom ^{AND TOP DW 12-14-76} can only. All ^{DW 12-14-76} other cans on site were stenciled with the type rod they are to contain (i.e. E7018, etc.		
Signature: <i>A.J. Boor for T. Valenzano</i>	⑩	Date: 11/29/76
Action Verified: <i>Brent T. Stojkov</i>	⑫	Date: 12/14/76

8/2/74

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G1001649-05

Reply: con't:

- 4) A complete count was conducted of all rod storage rooms material to determine if any other materials were mixed, and a review of procedures for possible modifications was conducted.
- 5) WFMC-1 currently specifies that all stainless covered electrodes be color coded blue and specifies the shade. This means both E309L-16 and E308L-16 coated rod are coded identically and only the small type designations on each rod differentiates between them. ~~An FCR is being initiate~~ to change this color code to correspond to that of the bare wire for the E309 classifications.

A project amendment to the BQAVI-ASME III,
Div. 1 and a FCR to Specification
7220-G-27Q, Rev. 3 are being
initiated

JRB 12-14-76

QUALITY ACTION REQUEST

From: J. G. Hook QA-Midland Site Job 7220		①																																
To: J. F. Newgen	② Control Document ref.: 7220-C-231 Rev. 11	③ QAR Ident No.: SD-12																																
Action Requested:		⑤																																
Section 11.6 states: "Concrete shall not be allowed or caused to flow a distance within the mass of more than 5 feet from point of deposition." Contrary to the above; for pour SWI(592.0)a, the slick lines and the valves were placed between 11 and 13 feet apart, in one area, other areas exceeded 10 feet. See attached sketch for layout. This problem was previously identified by QA and corrected on 11-2-76.																																		
Take action to assure all subsequent pumping setups will be such as to allow the intent of the specification to be met. (valves or down pipes should not exceed 10 feet at maximum spacing). If this requires further clarification of the specification requirement obtain this clarification from Project Engineering.																																		
Signature: <i>J. G. Hook</i>	⑥ Date: 11-17-76	⑦ Reply Requested by: 12-10-76																																
Reply: On 12/7/76 the above mentioned problem was discussed with Jack Delarm and Gary Knoll. At this time general instructions were issued that will assure compliance to the specification. These instructions will substantially reduce the spacing of discharge gates and pump line. Supervision agreed to comply. Reference Field Engineer report dated 12/8/76 by K. Kinkela.		⑨																																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">CA</td> <td style="width: 25%;">DATE</td> <td style="width: 25%;">FILE</td> <td style="width: 25%;"></td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>LOTE</td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>CIVIL</td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		CA	DATE	FILE						LOTE				CIVIL																				<div style="font-size: 2em; font-weight: bold; text-align: center;">RECEIVED</div> <p style="text-align: center;">DEC 17 1976 BECHTEL POWER CORP. JOB 7220</p>
		CA	DATE	FILE																														
LOTE																																		
CIVIL																																		
Signature: <i>Albert J. Newgen</i>	⑩ Date: 12/10/76	⑪																																
Action Verified: <i>J. G. Hook</i>	⑫ Date: 12-17-76	⑬																																

8/2/74

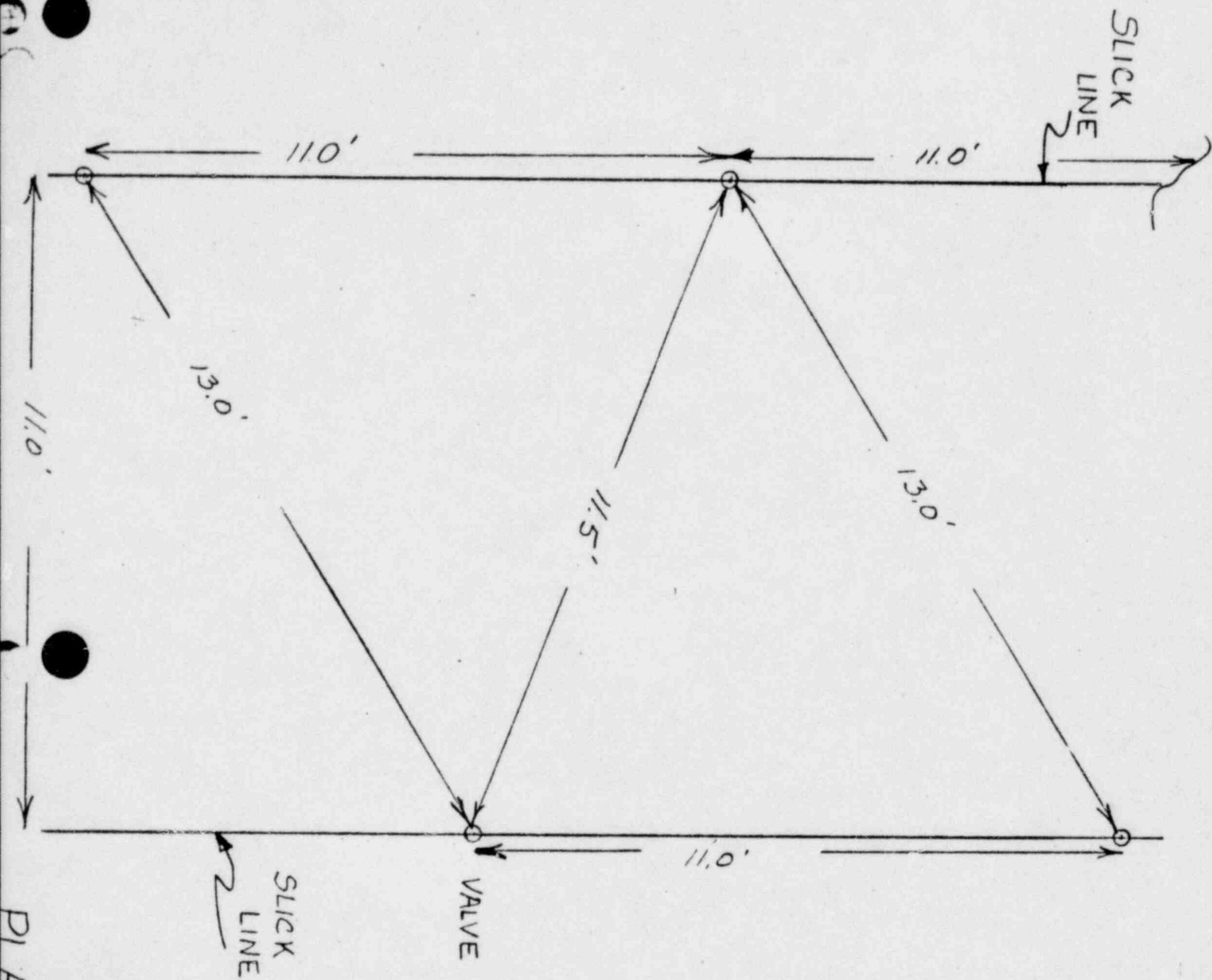
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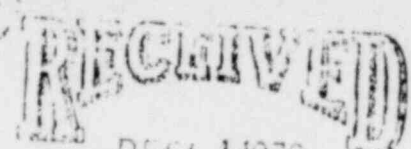
PINK - Sender's file

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G1001649-05

PLAN VIEW



QUALITY ACTION REQUEST


 DEC 1 1976
 SCOUTEL POWER CORP.
 JOB 7220

From: G. A. Waldrop		Site QA		Midland Job 7220		①
To: J. P. Connolly		Control Document ref.: SF/PSP G-3.2		QAR Ident. No.: SD-15		④
Action Requested:						⑤
<p>During a scheduled QA surveillance, pipe hanger 4-2HCB-21-H1 (Grinnell sketch No. 2-613-4-24) was found to have one field weld missing although the hanger was accepted by QC on IR M326-148W. After discussion with QC, NCR-604 was issued to obtain corrective action.</p> <p>CORRECTIVE ACTION REQUIRED:</p> <p>(1) QC reinspect a sufficient number of hangers to determine whether this is an isolated instance.</p> <p>(2) QC conduct additional training of the individual responsible to preclude recurrence.</p>						
Signature: <i>G.A. Waldrop</i>		Date: 11-19-76		Reply Requested by: 12-17-76.		⑧
Reply: The following corrective action has been taken:						⑨
<p>1. The hanger described in NCR-604 was the first installation attempt to be made on hangers by the QCE involved. The QCE had some difficulty interpreting where the weld symbol was designating the weld to be made. Consequently, this is considered to be an isolated instance.</p> <p>To further substantiate our rationale, QC has re-checked ten additional hanger and support installations and found no missing welds.</p> <p>2. The QCE involved received individual instruction from the LWQCE, and a special training session was given for all Welding QCE's (Ref. QCFM 2625) concerning NCR-604.</p>						
						⑩
Signature: <i>J.P. Connolly</i>						⑩
Date: 11-30-76						⑪
Action Verified: <i>G.A. Waldrop</i>						⑫
Date: 12-6-76						⑬

QA ROUTE	INFO.	ACT.
EQAE		
CIVIL		
ELEC.		
MECH.		
PIPING		
FILE		

8/2/74

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QUALITY ACTION REQUEST

From:	J. G. Hook	Site QA	Midland Job 7220	①
To:	J. P. Connolly	Control Document ref.:	QAR Ident. No.:	
		7220-C-231 Rev. 11	SD-17	
Action Requested:	This QAR is issued as a supplement to QAR-SD-12 which describes a condition where			
	placement of slick lines resulted in concrete being caused to flow more than 5 feet			
	from the point of deposition. Subsequent review of QCI C1.30 Rev. 2 Activity 2.2c,			
	indicates that the QCE is to "inspect" to assure concrete movement within the mass			
	is restricted to not more than five feet from the point of deposition. As indicated			
	in QAR-SD-12 this problem was previously noted by QA during another placement on			
	11/2/76.			
	Based on the above you are requested to determine why this problem was not noted			
	and corrected by Quality Control. Also additional training of the responsible			
	QCE's is requested.			
Signature:	<i>J. G. Hook</i>	Date:	11/29/76	Reply Requested by:
				12/15/76
Reply:	Placement No. SW1(592.0)a was the pour this QAR was written against. Prior to			
	placement of concrete a Quality Control Engineer did verify the distance between			
	the slick line gates. For future pours a more thorough check of the location of			
	gates will be made as noted in the training session on December 13, 1976.			

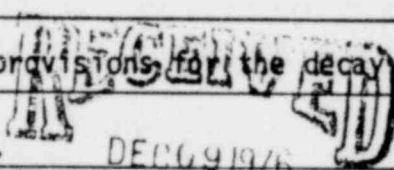
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DEC 16 1976
DECHTEL POWER CORP.
JOB 7220
PER *SW*

QA ROUTE	INFO	ACT.
LOAE	2-	
CIVIL		X
TRAC.		
MECH.	1/25	30
BUILDING		

Signature:	<i>J. P. Connolly</i>	Date:	12-15-76	⑩
Action Verified:	<i>J. G. Hook</i>	Date:	12-17-76	⑪

QUALITY ACTION REQUEST

From:	B. T. STOJKOV	Site QA	Job 7220	①												
To:	J. Newgen	② Control Document ref.: FPG-16, Rev. 2	③ QAR Ident. No.: SD-18	④												
Action Requested:	⑤															
Decay heat removal pumps 1P-060A, 1P-060B, 2P-060A and 2P-060B were moved into the Auxillary Building on about November 1, 1976. The maintenance requirements for these pumps were issued on November 3, 1976 (See F-10-9). As of the date of this QAR the initial maintenance provisions of F-10-9 have not been carried out. (Four weeks)																
It is requested that the initial maintenance provisions for the decay heat removal pumps be performed without delay.																
 DEC 9 1976 ECHETEL POWER CORP. JOB 7220 PER <i>[Signature]</i>																
Signature:	<i>Brent T. Skjler</i>	⑥ Date:	11/30/76	⑦ Reply Requested by:												
				12/7/76												
Reply:	⑧															
⑨ Initial maintenance as specified by F-10-9 was completed and witnessed by QC on 12/9/76. Scheduled workload on other priority equipment delayed work completion.																
Pumps were shipped by vendor with oil drained from sumps; however, residual oil has been evident in sight gauges. No equipment degradation is evident from the outside.																
<table border="1" style="border-collapse: collapse;"> <tr> <td>QA</td> <td>INFO.</td> <td>ACT</td> </tr> <tr> <td>ROUTE</td> <td></td> <td></td> </tr> <tr> <td>LOG</td> <td style="text-align: center;">✓</td> <td></td> </tr> <tr> <td>CIVIL</td> <td></td> <td></td> </tr> </table>					QA	INFO.	ACT	ROUTE			LOG	✓		CIVIL		
QA	INFO.	ACT														
ROUTE																
LOG	✓															
CIVIL																
Signature:	<i>J. Newgen</i>	⑩ Date:	12/9/76	⑪												
Action Verified:	<i>B.T. Skjler</i>	⑫ Date:	12/10/76	⑬												

8/2/74

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BPC 20877
G1001649-05

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Route To	This Copy For	File
FMSouthworth	SHHowell	16.3
HWSliger	GSKeeley	Issue Date December 22, 1976
JHMaclaren	TCCooke	Project Midland 1 & 2
	JMilandin	File Title NCR's on Bechtel
	JMKlacking	
	GLRichardson	



Consumers Power

Nonconformance
Report No OF-138

This Nonconformance Report is Issued To:
J. F. Newgen
Bechtel Project Superintendent

J. P. Connolly, Bechtel Project Field
Quality Control Engineer
who is responsible for corrective action.

Prepared By R.G. Wolney Date 12-22-76Approved By [Signature] Date 12/22/76Written Reply Requested By Date N/ACorrective Action Requested By Date N/A**Nonconformance Description and Supporting Details:**

During final rebar inspection of S-17 slab at 1634'-6" in the Auxiliary Building, the following deficiency was noted:

Bechtel drawing FCR 698, Section 2-2 calls for a 2'-0" minimum splice of six bundles of 2 #11 each to splice with existing bundles.

Contrary to the above, the additional six bundles of 2 #11's were found to be improperly spliced. The splices did not meet the required splice length as called for on the above drawing.

AEC Reportable Yes No See Procedure 9 (For Nuclear Projects Only)Stop Work Necessary Yes No See Procedure 16 - Stop Work No _____**Recommended Corrective Action:**

Correct the existing problem or provide engineering rationale to "use as is".

Corrective Action Taken:

The six #11 bundled bars were correctly installed with approved design drawings prior to concrete placement.

Verification of Corrective Action Required Yes No **Method of Verification:**

Visual inspection of rebar.

Nonconformance Closure Confirmed By R.G. Wolney
Date 12-22-76

To be completed at time of closure by Consumers Power QA Services.

Route To	This Copy For
FMSouthworth	SHHowell
HWSlager	GSKeeley
JHMaclaren	TCCooke
	JFNewgen
	JMilandin
	JMKlacking
	GLRichardson
	Subject File



CONSUMERS POWER
 Nonconformance
 Report No QP-139

File	<u>16.3.6</u>
Issue Date	<u>December 28, 1976</u>
Project	<u>Midland 1 & 2</u>
File Title	<u>NCR's on Bechtel Quality Control</u>

This Nonconformance Report is Issued To: J. P. Connolly Bechtel Project Field Quality Control Engineer who is responsible for corrective action.	Prepared By <u>Donald E. Horn</u> Date <u>12-28-76</u> Approved By <u>R.E. W. H. H. H.</u> Date <u>12/28/76</u> Written Reply Requested By Date <u>1-11-77</u> Corrective Action Requested By Date <u>1-28-77</u>
--	--

Nonconformance Description and Supporting Details:

See Attachment.

AEC Reportable Yes No See Procedure 9 (For Nuclear Projects Only)

Stop Work Necessary Yes No See Procedure 16 - Stop Work No _____
 No Hold Tags Applied

Recommended Corrective Action:

See Attachment.

¹ Corrective Action Taken:

¹ Verification of Corrective Action Required Yes No

¹ Method of Verification:

¹ Nonconformance Closure Confirmed By _____
 Date _____

¹ To be completed at time of closure by Consumers Power QA Services.

File 16.3.6
 Issue Date December 28, 1976
 Project Midland 1 & 2
 File Title NCR's on Bechtel
 Quality Control

Attachment to Report No QF-139

Nonconformance Description and Supporting Details:

United States Testing's Procedure No. QCP-4 Revision No. 1 "Calibration Procedures For Laboratory Equipment In The On-Site Testing Laboratory," Section VI Procedure - 1.6 Nonconformance Control: states:

- 1.6.1 RS and M&TE that are found to be damaged or out of adjustment and cannot be corrected shall be documented on the applicable form, Calibration Data (Attachment No. 6), by use of the UST-ICAR and processed in conformance with Internal Corrective Action Procedure Number UST-CA-1.
- 1.6.2 The UST-ICAR issued shall be referenced on the applicable form, Calibration Data (Attachment No. 6). When resolution of the UST-ICAR is obtained by the Laboratory Chief its close out shall also be documented on the same form.
 - 1.6.2.1 Material previously tested since the last calibration shall be evaluated by the Laboratory Chief or his designate.
- 1.6.3 RS or M&TE found nonconforming in accordance with sections 1.6.1 and 1.6.2 shall be identified with a tag marked "HOLD" (Attachment No. 8). The Hold Tag shall be attached to the nonconforming item which shall be segregated from calibrated and accepted items and kept from use until its discrepancies have been resolved.

Contrary to these requirements, thermometer No. 55 was nonconforming based on the calibration data given below for December 3, 1976 and the Nonconformance Control was not being implemented. Thermometer No. 55 was in use at the U.S. Testing Lab at the time this NCR was found.

<u>Standard Reading</u>	<u>Thermometer No. 55 Reading</u>	<u>Acceptance Criteria</u>	<u>Data Deviation</u>
32.2°	32	±1°F	0.2
65°	64°	±1°F	1.0
54.4°	54°	±1°F	0.4
88.4°	86°	±1°F	2.4
77.2°	76°	±1°F	1.2

Recommended Corrective Action:

- (1) Implement Procedure No. QCP-4 Revision No. 1, Section VI - 1.6.
- (2) Review all calibration and re-calibration records for Primary Reference Standards, Secondary Reference Standards, Measuring and Test Equipment for similar non-conforming conditions.
- (3) Per Section 13 of U.S. Testing QA Manual Rev. 5, an evaluation of previous results obtained with equipment found out of calibration should be made and documented by the Laboratory Chief or Project Engineer on Thermometer No. 55 and any found in (2) above.
- (4) The evaluation performed in (3) should be reviewed for acceptability by Project Engineering.
- (5) Take corrective action to preclude repetition.

Route To	This Copy For
FMSouthworth	SMHowell
HWSlager	GSKeelcy
JHMaclaren	TCCooke
	JFNewgen
	JMilandin
	JMKlacking
	GLRichardson
	Subject File



Consumers Power

Nonconformance
Report No OF-140

File	<u>16.3.6</u>
Issue Date	<u>December 28, 1976</u>
Project	<u>Midland 1 & 2</u>
File Title	<u>NCR's on Bechtel Quality Control</u>

This Nonconformance Report is Issued To:

J. P. Connolly
Bechtel Project Field Quality Control
Engineer

who is responsible for corrective action.

Prepared By Donald E. Horn Date 12-28-76
Approved By R.E. Calkins Date 12/29/76
Written Reply Requested By Date 1-11-77
Corrective Action Requested By Date 1-28-77

Nonconformance Description and Supporting Details:

Section 5.1.1.3.1 in the PSAR states in part "Concrete samples are taken from the mix every 100 cubic yards according to ASTM C-172, 'Standard Method of Sampling Fresh Concrete'. From these samples, cylinders for compression testing are made". Contrary to this requirement, concrete was only sampled once for a total of 134 cubic yards placed in pour A(646)b'. A minimum of two record concrete samples for compression testing was required.

AEC Reportable Yes No See Procedure 9 (For Nuclear Projects Only)

Stop Work Necessary Yes No See Procedure 16 - Stop Work No _____
No Hold Tags Applied

Recommended Corrective Action:

- (1) Review all Class I concrete placement records since July 31, 1976 for similar frequency problems.
- (2) Send information needed by Project Engineering on pour A(646)b' and all pours reviewed in (1) that have frequency problems, so Project Engineering can make an evaluation on the acceptability for which concrete cylinders were not made.
- (3) Take corrective action to preclude repetition.

Corrective Action Taken:

Verification of Corrective Action Required Yes No

Method of Verification:

Nonconformance Closure Confirmed By _____
Date _____

To be completed at time of closure by Consumers Power QA Services.

QUALITY ACTION REQUEST

From: B. T. Stojkov		Midland Jobiste QA	Job 7220	(1)																		
To: J. Connolly	(2) Control Document ref.: QA Flyer 76-F8	(3) QAR Ident. No.:	SD-21	(4)																		
Action Requested: The attached QA Flyer requests several actions in regard to Charpy impact test data on ITT Grinnell pipe spools. One of these actions includes Quality Control. Please take the action indicated and respond by the date shown below.				(5)																		
Note that only one class of pipe, ELB, requires impact tests. It may be the case that none of this class pipe has been received to date.																						
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> RECEIVED DEC 22 1976 DECHTEL POWER CORP. JOB 7220 PER: <i>[Signature]</i> </div>																						
Signature: <i>[Signature]</i>	(6) Date: 12-21-76	(7) Reply Requested by:	1-14-77	(8)																		
Reply: A review of QC records of received, reviewed and accepted Vendor data reports indicates we have at present no ELB class piping. This completes our response to QAR SD-21.				(9)																		
<table border="1" style="border-collapse: collapse;"> <thead> <tr> <th>QA ROUTE</th> <th>INFO.</th> <th>ACT.</th> </tr> </thead> <tbody> <tr> <td>LQAE</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td></td> </tr> <tr> <td>CIVIL</td> <td></td> <td></td> </tr> <tr> <td>ELEC.</td> <td></td> <td></td> </tr> <tr> <td>MECH.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td></td> </tr> <tr> <td>PIPING</td> <td></td> <td></td> </tr> </tbody> </table>					QA ROUTE	INFO.	ACT.	LQAE	<input checked="" type="checkbox"/>		CIVIL			ELEC.			MECH.	<input checked="" type="checkbox"/>		PIPING		
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PIPING																						
Signature: <i>[Signature]</i> APFQCE	(10) Date: 12-22-76	(11)																				
Action Verified: <i>[Signature]</i>	(12) Date: 12/27/76	(13)																				

8/2/74

WHITE - Return to sender

CANARY - Addressee's file

PINK - Sender's file

BPC 20877
G1001649.05



SAN FRANCISCO
POWER DIVISION



QUALITY ASSURANCE INFORMATION FLYER

Issue No. 76-F8

Date 12/15/76

DISTRIBUTION: Project & Lead QAE:

cc:

<input checked="" type="checkbox"/> <input type="checkbox"/> 6600	<input type="checkbox"/> <input checked="" type="checkbox"/> 8776	<input checked="" type="checkbox"/> <input type="checkbox"/> 10373	
<input checked="" type="checkbox"/> <input type="checkbox"/> 7220	<input type="checkbox"/> <input checked="" type="checkbox"/> 8856	<input type="checkbox"/> <input checked="" type="checkbox"/> 10855	<input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/> <input checked="" type="checkbox"/> 8031	<input checked="" type="checkbox"/> <input type="checkbox"/> 9818	<input checked="" type="checkbox"/> <input type="checkbox"/> 11760	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> <input type="checkbox"/> 8791	<input checked="" type="checkbox"/> <input type="checkbox"/> 10363	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

Legend: INFORMATION ACTION

QA Manager

AP 12/15/76

Subject: Charpy Impact Tests Not Performed

Newsletter 76-2 item 2 described a problem on one project having to do with missing Charpy impact test data on several Grinnell pipe spools. Eventual retesting did not provide acceptable test results and extensive analysis by Engineering and rework by Construction has resulted. The assigned Shop Inspector has since identified four additional spools ready to be shipped that lacked required Charpy impact test data.

SFPD Procurement Inspection has been requested to investigate and to perform a limited scope audit of Grinnell's implementation of its material control system.

If Grinnell has supplied or is supplying pipe spools to your project, PQAEs are directed to perform the following:

- (1) Advise QC of the problem and request that QC review the documentation packages for spool materials that require Charpy impact testing to assure that the tests have been performed and documented.
- (2) Verify by spot checking the documentation packages that a complete review was made and NCR's generated if problems were found.
- (3) Report the results to your QA Supervisor by 1/17/76.

FOLLOWUP VERIFICATION

PQAE Signature

Date:

Route To	This Copy For
FMSouthworth	SHHowell
CQHills	GSKeeley
HWSlager	TCCooke
	PAMartinez
	JMilandin
	WFHolub
	GLRichardson



CONSUMERS POWER

Nonconformance
Report No QF-92

File 17.3
 Issue Date April 19, 1976
 Project Midland 1 & 2
 File Title NCR's on Bechtel

This Nonconformance Report is Issued To:

D. S. Parker
 M&QS
 Ann Arbor, MI

Prepared By DRK Date 4-21-76
 Approved By J. L. Kelly Date 4/21/76
 Written Reply Requested By Date May 7, 1976
 Corrective Action Requested By Date *

who is responsible for corrective action.

Nonconformance Description and Supporting Details:

"Nondestructive Examination Standard Performance Specification NEPQ-RT (Level II)," Revision 1, covers personnel qualification for radiograph interpretation. The procedure requires under section 1.3 that "Certification shall be by a Bechtel NDE Level III Examiner". It further requires under section 6.1 a. that "...copies of the certification records of the Level III Examiner who certified the Level II personnel shall accompany the above records," (i.e., be filed on site). The documentation of certification is done with the NDE I, II form.

(Contd on Attachment)

AEC Reportable Yes No See Procedure 9 (For Nuclear Projects Only)Stop Work Necessary Yes No See Procedure 16 - Stop Work No _____
No hold tags applied.

Recommended Corrective Action:

- 1) Revise NDE I, II form to show that the Level III examiner's signature indicates that the Level II is certified. If this corrective action is taken, all personnel certification records on site that contain NDE I, II, Rev. 5 forms are to be updated using the new revision.

(Contd on Attachment)

Corrective Action Taken:

See Attached Sheet

Verification of Corrective Action Required Yes No

Method of Verification:

See Attached Sheet

Nonconformance Closure Confirmed By A. K. Kelly
Date 2-11-77

To be completed at time of closure by Consumers Power QA Services.

*To be established after written reply is received.

File 16.3
Issue Date April 19, 1976
Project Midland 1 & 2
File Title NCR's on Bechtel

Attachment to Report No QF-92

Nonconformance Description and Supporting Details: (Contd)

Contrary to the above, where revision 5 of NDE I, II was used, the level III examiner only "recommends" certification. A supplemental M&QS letter, not referenced in any procedure, shows that certification is by the Manager of M&QS. There are no Level III certification records on file for the Manager of M&QS.

Recommended Corrective Action: (Contd)

- or 2) Revise the procedure to reference the supplemental letter as documentation of certification for Level II personnel. If this corrective action is taken, Level III certification records for the Manager of M&QS are to be provided for filing on site.

Corrective Action Taken:

- 1) Revision 3 of "Nondestructive Examination Performance Specification NEPQ-RT" was revised to require a Level III examiner to test and recommend Level I and II candidates with actual certification by the Manager of M & QS. Also, NEPQ-MT, NEPQ-PT, NEPQ-UT, and NEPQ-VB were revised to indicate the same as NEPQ-RT for testing and certification.
- 2) The NEPQ procedures were withdrawn from the field as the examination of NDE personnel is by NDE Level III examiners from M & QS-San Francisco. Specification G-27 was revised to indicate the change.

Method of Verification:

- 1) The revised procedures were reviewed. The Level III examiner now tests and recommends certification with certification by the Manager of M & QS.
- 2) SCN G-27-6012 was reviewed and found to delete the procedures from specification G-27.

Route To	This Copy For
CQHills	SHHowell
HWSlager	GSKeeley
FMSouthworth	TCCooke
	JMKlacking
	GLRichardson
	JFNewgen
	IPCconnolly



CONSUMERS POWER

Nonconformance
Report No QF-116File 16.3.1
Issue Date September 15, 1976
Project MidlandFile Title NCR's on Bechtel
Engineering

This Nonconformance Report is Issued To:

R. L. Castleberry
Bechtel Power Corp.
Midland Project Engineer

who is responsible for corrective action.

Prepared By RE Whitaker Date 9/16/76Approved By JL Coyle Date 9/16/76Written Reply Requested By Date 9/29/76Corrective Action Requested By Date 10/16/76

Nonconformance Description and Supporting Details:

During in process surveillance of rebar placement in the equipment hatch pourback to elevation 673'-1", the following discrepancy was identified between Bechtel design drawing C-326, Rev. 3 and Project Engineering approved vendor drawing E55, Rev. F1/3. The design drawing indicates that there should be five tie bars on each side of the equipment hatch at elevation 664'-0", but the vendor drawing shows only four ties at that elevation.

Rebar placement for the equipment hatch pourback and containment exterior wall to elevation 673'-1" was approved based on Resident Engineers Memorandum RE-C-183 dated September 7, 1976 which says the number of ties shown on the vendor drawing meet the Project Engineering design requirements.

AEC Reportable Yes No See Procedure 9 (For Nuclear Projects Only)Stop Work Necessary Yes No See Procedure 16 - Stop Work No _____

Recommended Corrective Action:

1. Due to the corrective action taken for NCR QF-113, which was completed after vendor drawing E55, Rev. F1/3 was approved, no further training is necessary in this area.
2. Provide assurance that other vendor drawings which were reviewed and approved before the training session was held on September 8, 1976 in response to NCR QF-113 are not in variance with the information shown on the design drawings.

Corrective Action Taken:

No specific action was taken relative to vendor drawings since it was determined that the engineer that checked the vendor drawings correctly interpreted the design drawing. There was a discrepancy between two design drawings and this was corrected by a drawing revision.

Verification of Corrective Action Required Yes No

Method of Verification:

The revision of drawing C-326 was reviewed.

Nonconformance Closure Confirmed By RE WhitakerDate 10/22/76

To be completed at time of closure by Consumers Power QA Services.

Route To	This Copy For
FMSouthworth	SHHowell
CQHills	GSKeeley
HWSlager	TCCooke
	JMKlocking
	GLRichardson
	JMilandin
	JPConnolly



Consumers Power
Nonconformance
Report No QF-121

File	16.3.1
Issue Date	September 27, 1976
Project	Midland 1 & 2
File Title	NCR's on Bechtel Engineering

This Nonconformance Report is Issued To:
R. L. Castleberry, Project Engineer
who is responsible for corrective action.

Prepared By RE Whitaker Date 9/22/76
Approved By [Signature] Date 9/23/76
Written Reply Requested By Date 10-15-76
Corrective Action Requested By Date 10-25-76

Nonconformance Description and Supporting Details:
Bechtel drawing C-214, Rev. 5, partial plan at elevation 628'-6", shows "#11 @ 9 TOP & BOTT" rebars in the east-west direction, extending north of Hk line. Section "V" on Bechtel drawing C-276, Rev. 2 shows the same #11 rebars between a distance of approximately 2 feet north of Hk line in the east-west direction.
Inland Ryerson drawing A32A 2/f2, section A-A shows 23 #11 x A22 T @ 9" and 23 #11 A21 B @ 9" extending in the east-west direction south from Hk line, but no rebar shown north of Hk line.
Consequently, the two #11 A-22 bars and 2 #11 A-21 bars which were supposed to be installed as indicated in section "U" of Bechtel drawing C-276, Rev. 2 were omitted in the 628'-6" elevation east of 7.8 line.

AEC Reportable* Yes No See Procedure 9 (For Nuclear Projects Only)
Stop Work Necessary Yes No See Procedure 16 - Stop Work No _____

- Recommended Corrective Action:
1. Bechtel perform an engineering analysis as to whether the safety of the plant would adversely be affected due to the 4 #11 rebar being omitted.
 2. Develop additional corrective action to insure that approved vendor drawings do not conflict with Bechtel design drawings if vendor drawings are continued to be used.

Corrective Action Taken:
The structure was analyzed and it was determined that the safety of the plant was not affected by the four #11 bars being omitted.

Due to the discrepancies found between design drawings and vendor drawings, rebar inspection by Bechtel QC is now based entirely on design drawings.


Verification of Corrective Action Required Yes No

Method of Verification:
Bechtel letter BLC-3154 on reportability was reviewed. Bechtel QC's use of drawings was monitored during rebar inspection.

Nonconformance Closure Confirmed By RE Whitaker
Date 12/13/76

To be completed at time of closure by Consumers Power QA Services.

*To be determined when Bechtel Engineering performs an engineering analysis.

Route To	This Copy For	 Consumers Power Nonconformance Report No <u>QF-129</u>		File
FMSouthworth	SHHowell			File
EQHills	GSKeeley	Issue Date	<u>October 12, 1976</u>	
HWSlager	TCCooke	Project	<u>Midland 1 & 2</u>	
MILLARSEN	JMilandin	File Title	<u>NCR's on Bechtel</u>	
	JMKlacking		<u>Construction</u>	
	GLRichardson			

This Nonconformance Report is Issued To:

Mr. J. F. Newgen
Bechtel Project Superintendent

who is responsible for corrective action.

Prepared By SRK Keating Date 10-12-76

Approved By [Signature] Date 10/21/76

Written Reply Requested By Date 10-26-76

Corrective Action Requested By Date 11-09-76

Nonconformance Description and Supporting Details: Specification M-204, Rev. 4, "Field Fabrication and Installation of Piping and Instrumentation for Nuclear Service" requires in section 6.3.1 for piping and fittings, that "All stainless steel and Ni-base alloy materials must be handled in such a manner that it is not in contact with lead, zinc, copper and other non-ferrous low melting elements and alloys to prevent surface contamination".

Contrary to the above, spray header pipe spools 2 GCB-001-S613-1 and 2 GCB-008-S613-1 are in contact with galvanized tendon sheathing in the "staging" area immediately west of the unit 2 dome fabrication area. Additionally, above referenced pipe spool 2 GCB-008-S613-1 is also in contact with carbon steel liner plate leak chase.

AEC Reportable Yes No See Procedure 9 (For Nuclear Projects Only)

Stop Work Necessary Yes No See Procedure 16 - Stop Work No _____

No Hold Tags Applied

Recommended Corrective Action:

1. Correct the discrepancy and document the work on an F-10 form.
2. Provide a Project Engineering evaluation for the pipe spools referenced above with regard to surface contamination with zinc.
3. Notify cognizant personnel of the requirements and document to whom the instruction was given.

¹ Corrective Action Taken:

See attached

¹ Verification of Corrective Action Required Yes No

¹ Method of Verification:

See attached

¹ Nonconformance Closure Confirmed By SRK Keating
Date 12-12-76

¹ To be completed at time of closure by Consumers Power QA Services.

File 16.3.4
Issue Date October 12, 1976
Project Midland 1 & 2
File Title NCR's on Bechtel
Construction

ATTACHMENT TO NCR QF-129

Corrective Action Taken:

1. The spools and sheathing have been separated. The corrective measures have been recorded in accordance with F-10-6 and are indicated on the F-20-70 form. The carbon steel was separated from the stainless steel pipe.
2. Bechtel NCR 579 was written describing the events as reported in QF-129. The NCR was sent to Project Engineering for disposition. Project Engineering recommended an inspection and cleaning which was performed and documented on NCR 579. Based on the satisfactory results, Project Engineering dispositioned the item "use-as-is".
3. The Materials Maintenance Supervisor in conjunction with the Training Coordinator has provided guidance to the Materials Storage and Maintenance Superintendent, Area Superintendents, and Area Engineers, in maintaining proper separation of stainless steel piping and other material. This training has been recorded in the jobsite training records. Training Session BT-93 documents the training.

Method of Verification:

1. Observed that the pipe spools have been separated from the tendon sheathing and the carbon steel leak chase. There was no visual evidence of surface contamination.
2. Reviewed F-10-6 and F-20-70 forms. The forms contain the corrective measures.
3. Reviewed Bechtel NCR 579. The NCR and the disposition were considered satisfactory.
4. Reviewed training session BT-93 which documented instruction given to personnel. Documentation is considered satisfactory.

Route To	This Copy For	File
FMSouthworth	SHHowell	16.3.1
HWSlager	GSKeeley	Issue Date December 7, 1976
JHMaclaren	TCCooke	Project Midland 1 & 2
	JMilandin	File Title NCR's on Bechtel
	JMKlacking	Construction
	GLRichardson	
	Subject File	



Consumers Power

Nonconformance
Report No OF-137 * *

This Nonconformance Report is Issued To:

J. F. Newgen
Bechtel Project Superintendent

who is responsible for corrective action.

Prepared By J. F. Newgen Date 12-7-76Approved By J. F. Newgen Date 12/7/76Written Reply Requested By Date 12-20-76Corrective Action Requested By Date 1-16-77

Nonconformance Description and Supporting Details:

See Attachment.

AEC Reportable Yes No See Procedure 9 (For Nuclear Projects Only)Stop Work Necessary Yes No See Procedure 16 - Stop Work No _____

Recommended Corrective Action:

1. Revise Document Control procedures to incorporate current acceptable requirements especially items of nonconformance of this report.
2. Train Document Control personnel on revised procedure and document the training in accordance with Bechtel procedure.
3. Until the new procedure is revised and issued, Bechtel Document Control is required to implement all the requirements in the PSP G-2.1 procedure excluding items 1 and

¹Corrective Action Taken: 2 of this nonconformance report.¹Verification of Corrective Action Required Yes No ¹Method of Verification:¹Nonconformance Closure Confirmed By _____
Date _____¹To be completed at time of closure by Consumers Power QA Services.

File 16.3.1
Issue Date December 7, 1976
Project Midland 1 & 2
File Title NCR's on Bechtel
Construction

Attachment to Report No QF-137

Nonconformance Description and Supporting Details:

Nonimplementation of Bechtel procedure PSP G-2.1 resulted in six deficiencies against Midland Site Document Control - Bechtel Construction. The following requirements were violated and supporting details are listed:

1. Procedure PSP G-2.1 Section 3.1.4 states in part when referring to Bechtel drawings that, "Each drawing shall be on the latest drawing control record, Form G-167a". Contrary to the above, Document Control Center is using control cards instead of Form G-167a.
2. Procedure PSP G-2.1 Section 3.2.1 states in part when referring to drawing distribution, "The Project Field Engineer shall be responsible for maintaining drawing distribution list establishing normal distribution of Bechtel engineering drawings, specifications, instructions and procedures". Contrary to the above, the master distribution list and addenda which are reviewed and approved by the PFE or his designee are maintained by the Document Controller.
3. Procedure PSP G-2.1 Section 3.2.1 states in part, "The Lead Discipline Engineer is responsible for reviewing the drawing for discrepancies, incorporations of DCN's/FCR's and correlation of references. Any deficiencies noted will be reported by an IOM to the Project Field Engineer except as noted in 3.1.3". Contrary to the above, there was no evidence of IOM's being sent to the PFE on drawing deficiencies.
4. Procedure PSP G-2.1 Section 3.2.1 states in part, "All deficiencies, after being cleared with Project Engineering, will be noted on a sepia". Contrary to the above, these deficiencies are not being noted on sepias.
5. Procedure PSP G-2.1 Section 3.2.3 states in part, "If field sketches are used for permanent construction, they must be controlled by a drawing distribution list and signed by the Project Field Engineer". Contrary to the above, only revisions to FSK's up to Rev. 0 are being signed by the PFE.
6. Procedure PSP G-2.1 Section 5.0 states in part, "The Project Field Engineer, through Document Controller, is responsible for maintaining up to date sticks in various craft offices and work areas. Any superseded drawings must be marked "Void" and destroyed, or if required by the Lead Engineers, drawings will be marked "Void" and an appropriate reason for retention added. For example, 'Void for Production Control Only'." Contrary to the above, if drawings are not marked or stamped "Void, or For Information Only, " no other markings appear on drawings that indicate reasons for retention.