

BECHTE

NONCONFORMANCE REPORT

1. PAGE 1 OF 4	14. NCR N 405
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	USE AS IS
DATE	DATE
PROJECT FIELD ENGINEER	DATE
PROJECT ENGINEER	DATE
PROJECT FIELD QC ENGINEER	DATE
AUTHORIZED INSPECTOR	DATE

2. DRAWING/PART NO. 7220-M-92-29	REV. 3	7. PROJECT NO. 7220	12. REPORTED BY <i>Don Hendricks</i>	DATE 4-8-76
3. ITEM DESCRIPTION Polar Crane LH-51	8. ITEM LOCATION RR Siding	13. VALIDATED BY <i>Flannolly</i>	DATE 4-8-76	
4. SERIAL NUMBER CN-25088	9. STARTUP SYSTEM NO. N/A	15. REPLACEMENT PART NO. N/A	REV.	
5. PURCHASE ORDER NO. M-92	10. QC FIELD INSPECTION PLAN NO. N/A	16. REPLACEMENT SERIAL NO. N/A		
6. CONTRACTOR/LOCATION Harnischfeger, Milwaukee, Wisconsin	11. ASME CODE ITEM ☐ YES ☒ NO	17. SOURCE Vendor		
18. ROUTING INSTRUCTIONS: ☒ ROUTE TO FIELD ENGINEERING ☐ ROUTE TO MATERIAL SUPERVISOR				

19. NONCONFORMING CONDITION:
Drawing 7220-M-92-29 Rev. 3 shows a 5/16" continuous fillet weld to join items 4 & 5 to item 18, and a full penetration butt weld splicing item #3 to item #2. Contrary to above the following was noted on girder G-1 of crane LH-51: Lack of fusion between item #18 and items #4 & #5 intermittent along entire length of weld. Under size fillet weld (Less than 5/16") between item #18 and items #4 & #5. Evidence of incomplete fusion at butt welds between items #2 & #3. 40 No. 4.001 Nonconformance discovered during field inspection of crane.

20. ☒ FIELD DISPOSITION Harnischfeger Co. notified by letter M-92-(0)-1 dated March 30, 1976, requesting resolution of non-conforming weld. Block 20 continued on page two.	☐ FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING	21. FIELD DISPOSITION RESULTS: <i>Revised Consideration on item A Ref. QCIR M-92-14, The disposition in Block 20 Cosmetic work on item B Block 20 acceptable - A. L. Boulden 11/4/77</i>
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22. ENGINEERING DISPOSITION	23. ENGINEERING DISPOSITION RESULTS:
24. IS DESIGN CHANGE REQUIRED ☐ NO ☐ YES, SEE ATTACHED:	25. REJECTED MATERIAL DISPOSITION ☐ RETURN TO SUPPLIER ☐ SCRAP
DRAWING _____ REV. _____ DCN _____	REMARKS _____
SPEC _____ REV. _____ ADD. _____	27. QC ACCEPTANCE <i>A. L. Boulden</i> 11/4/77 QC ENGINEER _____ DATE _____
	AUTHORIZED INSPECTOR _____ DATE _____

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

QC-G3-2

8006180757

Block 20 continued.

^{fewer}
~~Repair~~ in accordance with Harnischfeger procedures 7220-M-92-80, 81, 82, and 83. Procedures received at site July 20, 1976 from Project Engineering with Level 1 approval.

W. H. H. 8-3-76
H. C. 8-3-76

Item: Block 20 Revised Disposition:

A. The fillet weld which was undersized or intermittently showed a lack of fusion between item #18 and item #4 & #5 was built up to the required 5/16" fillet utilizing Harnischfeger Corp. Welding procedure CN 25088-89-28A 12572, as approved by Engineering.

B. The evidence of incomplete fusion at a butt weld between items #2 and #3, as noted in Block 19, was removed by grinding (Approximately 1/16" deep) at the direction of Harnischfeger's representative who identified it as surface porosity which does not violate Aws. D1.1 requirements. This area was filled using Bechtel procedure P1-A-LH at Harnischfeger representative's direction. Harnischfeger Corp. identified this as cosmetic welding and not as a nonconforming condition (See TWX of 8/11/76.)

Asent 11/6/77
11/6/77

CH-25051

HARRISCHFEGER CONF

11-92

108 7220	A 8 1
ROMING	A 9 1
PC WP	A 10 1
PCP	A 11 1
PCP	A 12 1
PCP	A 13 1
PCP	A 14 1
PCP	A 15 1
PCP	A 16 1
PCP	A 17 1
PCP	A 18 1
PCP	A 19 1
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PCP	A 21 1
PCP	A 22 1
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PCP	A 95 1
PCP	A 96 1
PCP	A 97 1
PCP	A 98 1
PCP	A 99 1
PCP	A 100 1



Bechtel Power Corporation

Post Office Box 2167
Midland, Michigan 48640



March 30, 1976

Harnischfeger Corporation
4400 National Avenue
Milwaukee, WI 53246

Attention: Gerry S. Mross

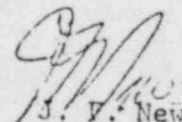
Dear Mr. Mross:

Job 7220 Midland Project
Reactor Building Crane
M-92-(0)-1

During an inspection of the Reactor Building Polar Crane we noted an incomplete weld on a seam on girder G-1 for crane 1H-51. This incomplete weld was also inspected by Messrs. Goessel, Goff, and Redenz of Harnischfeger during their visit to our jobsite in February 1976. They agreed that weld repair is required.

By transmittal of this letter we are requesting from you a resolution for the completion of the above mentioned weld. Please be advised that we are holding payment of your invoice 3492-A until satisfactory resolution of this matter.

Very truly yours,


J. V. Newgen
Project Superintendent
BECHTEL POWER CORPORATION
Agents for Consumers Power Co.

JFN/RH/sw

BECHTEL

NONCONFORMANCE REPORT

1. PAGE 1 OF 2		14. NCR NO. 488	
25. DISPOSITION CONCURRENCE			
REWORK	REJECT	REPAIR	USE AS IS
☒	☐	☐	☐
PROJECT FIELD ENGINEER		DATE	
<i>J. C. Valdez</i>		9-23-76	
PROJECT FIELD QC ENGINEER		DATE	
<i>J. C. Valdez</i>		9-23-76	
AUTHORIZED INSPECTOR		DATE	
<i>J. C. Valdez</i>		1-11-77	

2. DRAWING/PART NO. Spec. No. 7220-M-201		REV. 6	7. PROJECT NO. 7220	12. REPORTED BY <i>H. B. Blum</i>	DATE 8-16-76
3. ITEM DESCRIPTION Pipe Spool		8. ITEM LOCATION QC Hold		13. VALIDATED BY <i>J. C. Valdez</i>	DATE 8-17-76
4. SERIAL NUMBER 1-GCB-8-S-612-1-3		9. STARTUP SYSTEM NO. N/A		15. REPLACEMENT PART NO. N/A	REV.
5. PURCHASE ORDER NO. 7220-M104A-AC		10. QC FIELD INSPECTION PLAN NO. IR R-1.00-220		16. REPLACEMENT SERIAL NO. N/A	
6. CONTRACTOR/LOCATION ITT Grinnell, Kernersville, NC		11. ASME CODE ITEM ☒ YES ☐ NO		17. SOURCE Supplier	

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

19. NONCONFORMING CONDITION: Spec. 7220-M201 Rev. 6, para. 9.4 states: "All Nuclear piping shall be inspected by an Authorized Code Inspector and shall be code stamped in accordance with the Nuclear Power Plant Component Code article NA-8000." Contrary to the above, one spool piece is marked on code tag 1-GCB-8-S-612-1-3 while documentation package is marked 1-GCB-9-S-612-1-3. Noted during receipt inspection. "Q" No. 4.124. Hold pending final disposition. 1 Hold tags applied.

20. ☒ FIELD DISPOSITION ☐ FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Route this NCR to Procurement Supervisor. Procurement Supervisor to obtain letter from ITT Grinnell, countersigned by the authorized inspector representing Grinnell's Inspection Agency, which will authorize Bechtel to change the existing code tag from 1-GCB-8-S-612-1-3 to 1-GCB-9-S-612-1-3.

continued on Page 2.

Ken Rippe 9-23-76
Al. Pulito 9-23-76

21. FIELD DISPOSITION RESULTS:

CODE DATA NAME PLATE
CORRECTED PER ATTACHED
LETTER FROM ITT GRINNELL
Frank M. Miller
1-12-77

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

25. ACCEPTANCE

J. C. Valdez 1-13-77
J. C. Valdez 1-13-77

BECHTEL

NONCONFORMANCE REPORT (CONT'D)

1 PAGE 2 OF 2

14 NCR 488

Block 20 continued:

Route this NCR to Procurement Supervisor. Procurement Supervisor to obtain letter from ITT Grinnell authorizing Bechtel to change the piece mark on the existing code plate from 1-GCB-8-S612-1-3 to 1-GCB-9-S612-1-3. The change will be witnessed by the Authorized Inspector representing Kemper Insurance Co.

Don Brundage 1-11-77
M. P. Pulte 1-11-77

10098-2

QC-G3-3

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

CHIT

ITT Grinnell
Industrial Piping, Inc.

P.O. Box 555
Kearneysville, W. V. 27234
(919) - 933-4331

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

NCR 488 Page 3 of 5

Attention: Mr. M. Lemmon

Subject: Midland 1 & 2
P.O. 7229-M-184A
NCR 488

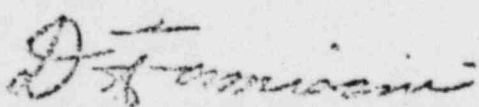
Gentlemen:

This letter is to authorize you to change this piece mark stamped on the code plate for piece MP-76-67 from LGCB-9-S-612-1-3 to LGCB-9-S-612-1-3. A rubbing of the code plate - before and after - must be sent to ITT Grinnell, Attn: E. Johnson. Please send a carbon copy of the transmittal to D. Fornisani.

Very truly yours,


E. Johnson,
Director of Quality Assurance

and


D. Fornisani
Program Manager

DT/ja

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 06-08-01 BY 60322
DECLASSIFICATION AUTHORITY
E.O. 13526

THE GETTANELL
TO THE
ST
R 1 1976
DC MR 166B-9 8-8-12-1-3

BECH

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 508	20. Page 1 of 2
2. Unit(s) 2	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Concrete	5. Item Location Pour CC(619.5)a	
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 Champion Inc. Midland, Michigan
11. Inspection Criteria ☐ DWG ☒ SPEC ☐ OTHER		IR NO. C-130-41 NO. C-230 Rev. 7	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC'G ☐ CONST ☐ TEST
15. Equip Furnished by ☐ CLIENT ☐ ENG ☐ FLD			16. Nonconforming Condition: Section 9.2.1 of Spec. C-230 Rev. 7 requires that all concrete materials be measured in accordance with ASTM C-94-72. ASTM C-94-72 states in part that powdered admixtures weighing accuracy shall be within ± 3 percent of the design weight. Contrary to the above, Batch Ticket No. 09925 representing 8 yd's of concrete placed in Pour CC(619.5)a on 8-27-76 shows flyash content to be 13 lbs above the maximum allowable weight of 692 lbs. Nonconformance noted during QC review of Batch Tickets. "Q" No. is 1.205. One Hold tag applied.		
17. Reported By Edwin Dutton		Date 8-30-76	18. Validated By W. J. Donnelly	Date 8-31-76	24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS PROJECT FIELD ENGINEER DATE 10/1/76 PROJECT ENGINEER DATE 7/2/76 PROJECT CONSTR QC ENGINEER DATE 10-1-76 AUTHORIZED INSPECTOR DATE
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)			25. Disposition Results		
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING "Use as is". This additional flyash will produce a minimal increase in the concrete strength. U. S. Testing will be notified in writing to conduct additional training sessions, as required to insure adequate batch plant inspection.					
23. Project Engineering Disposition The inclusion of 705 lb of flyash into an 8 c.y. batch in lieu of the 692 lb maximum allowable will tend to cause a slight increase in long term concrete strength while reducing permability to water. The subject batch of 8 c.y. represents less than 4 % of the total pour of 227 c.y. Based on the fact that the subject concrete will not be detrimentally affected, Project Engineering concurs with the Field recommendation to "use as is."					
26. QC Acceptance QC ENGINEER AUTHORIZED INSPECTOR			DATE 1/19/77		

A.L.D.

Approved 9-23-76
9-23-76

22. "Use As Is". This small amount of additional flyash will provide a negligible deviation in the concrete strength. U. S. Testing will be notified in writing to conduct additional training sessions, as required to insure adequate batch plant inspection.

K. L. Henderson 2-2-76

to J. J. 9/2/76

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

BECHTE

NONCONFORMANCE REPORT

2. DRAWING/PART NO. Spec. 7220-M-209		REV. 3	7. PROJECT NO. 7220	12. REPORTED BY <i>Robert S. Murrell</i>	DATE 9-3-76	14. NCR NO. 513
3. ITEM DESCRIPTION Pipe supports		8. ITEM LOCATION QC Hold Area		13. VALIDATED BY <i>R. Murrell</i>	DATE 9-3-76	25. DISPOSITION CONCURRENCE
4. SERIAL NUMBER See Block 19		9. STARTUP SYSTEM NO. N/A		15. REPLACEMENT PART NO. N/A	REV.	REWORK ITEM 1b
5. PURCHASE ORDER NO. 7220-M-106AC Rev. 2		10. QC FIELD INSPECTION PLAN NO. IR-R-1.00-246		16. REPLACEMENT SERIAL NO. N/A		REJECT ITEM 1
6. CONTRACTOR/LOCATION ITT Grinnell, Warren, Ohio		11. ASME CODE ITEM ☒ YES ☐ NO		17. SOURCE Supplier		REPAIR ITEM 1
18. ROUTING INSTRUCTIONS:		☒ ROUTE TO FIELD ENGINEERING		☐ ROUTE TO MATERIAL SUPERVISOR		USE AS IS ITEM 1

19. NONCONFORMING CONDITION:

1. Purchase order 7220-M-106AC, Rev. 2, Item A states in part: "Parts lists required shall contain the name and number of every part for the equipment and its auxiliaries including drawings in sufficient detail to locate and identify each part." A. Contrary to the above, the packing list does not agree with the drawings sent with the shipment on the following listed hanger pipe support assemblies. The G-321-D for this shipment references the packing list as the traceable document.

Con't pg. 2

20. ☒ FIELD DISPOSITION Item 1a	☒ FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING Item 1b and Item 2	21. FIELD DISPOSITION RESULTS:
Item 2-Route to Project Engineering for resolution. Field suggests a "use as is" disposition provided a revised drawing and the necessary NDE results are submitted to the field. If NDE results are required but have not been performed by the vendor, Project Engineering shall instruct the field to perform the applicable NDE. (Item 1b and 1a con't on sheet 2)		1a. Homings received to correct documentation supplied by the vendor. Robert S. Murrell 10/3/76
22. ENGINEERING DISPOSITION 1b. Hold until receipt of new beams that are in route and rework to 2-611-3-34 Rev. 4 Sub 5. Upon completion of rework, all engineering requirements are met.		Item 2 - see pg 6 of 7
2. Engineering considers these pipe clamps to be standard components and recommends that the field use "as is." Grinnell is currently revising their sketches to incorporate this clamp assembly as a standard component. Visual inspection is the only NDE required; therefore additional NDE is unnecessary.		23. ENGINEERING DISPOSITION RESULTS: 1b. Rework as per engineering disposition complete and satisfactory. RBE C. Gert 1-26-77
24. IS DESIGN CHANGE REQUIRED ☐ NO ☐ YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION ☐ RETURN TO SUPPLIER ☐ SCRAP	27. QC ACCEPTANCE QC ENGINEER AUTHORIZED INSPECTOR
DRAWING _____ REV. _____ DCN _____	REMARKS	1-26-77
SPEC. _____ REV. _____ ADD. _____		1-26-77

10098-1

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

QC-G3-2

BECHTE

NONCONFORMANCE REPORT (CONT'D)

PAGE 2 OF 2-58 7 13

Packing List Drawings Referenced	Drawings Sent With Shipment	Hanger No.	Hanger Shipping Order
619-5-10 Rev. 1	Rev. 3	10-2HBC-96-H10	E-ME-102
619-5-11 Rev. 1	Rev. 2	10-2HBC-96-H11	"

B. Contrary to above, pipe hanger assembly sketch 2-611-3-34, Rev. 3, Bill of Material Item 2 is in conflict with the sketch itself. The length of the 4" M-Beam supplied with the hanger assembly does not agree with sketch dimensions. The clamp assembly was supplied in accordance with the detailed bill of material. Sketch attached exhibit A. The above was delivered under shop order E-ME-147.

2. Purchase order 7220-M-106AC, Rev. 2, Item A states in part: "Parts lists required shall contain the name and number of every part for the equipment and its auxiliaries including drawings in sufficient detail to locate and identify each part." Contrary to the above, the pipe clamp delivered with hanger assembly 2-1-2GCB-24-H1 sketch 2-611-3-38 on shop order E-ME-147, does not match the sketch's Bill of Materials item referenced. The bill of material item 4 states in part: "Fig. 211 #1 sway strut assembly 2 7/8" O.D....". The clamp delivered is not a standard Figure 211 clamp. The clamp is a standard 4" Figure 211 with flat bar liners welded inside the clamp to conform with the O.D. requirements of the sketch. See attached exhibit B.

Nonconformance noted during receipt inspection. Hold items pending final disposition. "Q" numbers are 4.191 & 4.112.

4 = hold tags applied.

1 RSM 11/19/77

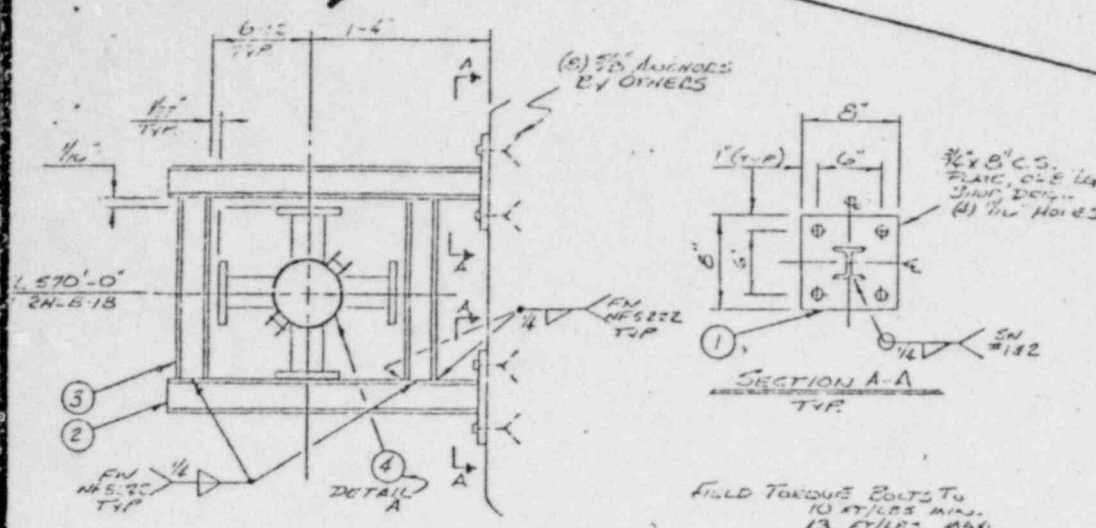
Block 20 con't.

Item 1a: The material supervisor is to obtain a corrected packing list from the vendor

Item 1b: Route to Project Engineering for resolution.

C.E. Fox 9/29/76
R. Pulido 9-29-76

E147

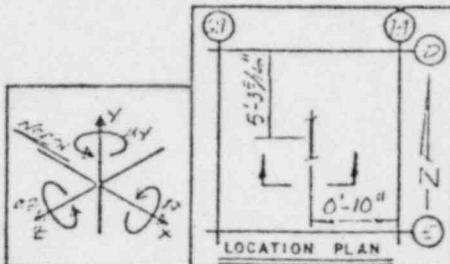


ITEM NO.	MATERIALS & OPERATIONS	QUAN	SHIP	PBS	J	CSS	PRIM	SEC
	PIPE RESTRAINT CONSISTING OF:	ONE						
1	Carbon Steel Plate/Section A-A, T.W.=27# (SA-36) or (SA-515-GR5)	2						
2	4" M-Beam @ 13#/ft., 1'-1 3/4" long, T.W.=20# (SA-36) Shop centered & welded to Item #1	2						
3	4" M-Beam @ 13#/ft., 1'-0 1/16" long, T.W.=20# (SA-36)	2						
4	4 1/2" O. D. Pipe Clamp Assembly/Detail A T.W.=25#	1						
	47" N.D.E/PAR E.1.1							
	BUNDLE # TAG MARK: H4-2HCB-18-3	1						
	MATERIAL TO BE PAINTED IN ACCORDANCE WITH STANDARD SPECIFICATION SC-49							
APPROVED BY: <u>PS</u> DATE: <u>10-31-75</u> CRITICAL								
	Approved By: <u>PS</u>							
	Date: <u>10-31-75</u>							
	QUAN SHIP							

TEG
All tolerances in accordance with QCP 32A001 U.N.O.
Fab. Procedure is FH-101-10
All products designed in accordance with EPL File No. 1
Rev. 1

PIPE ISO. H-611 SH3 (9)-11
DATA POINT. 745
PIPE MAT'L. SA-312 TP304
INSUL. 1 1/2 AREA 1

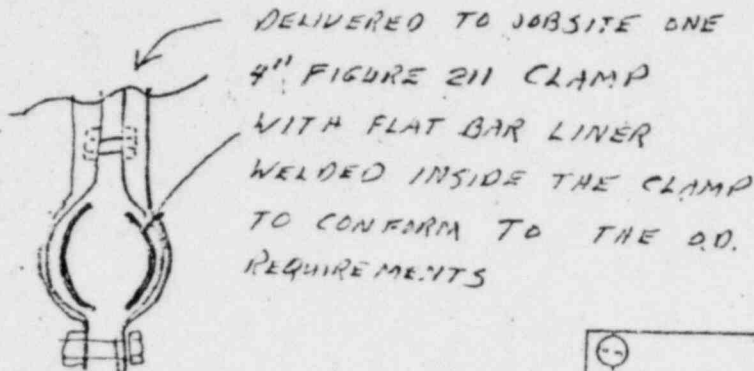
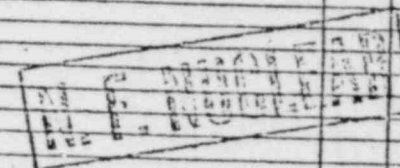
MIN 10 SIXTH 3/4"



ITT GRINNELL PIPE HANGER DIVISION				CONDITIONS	Fx	Fy	Fz	Mx	My	Mz
REF. DRAWING NUMBERS				DESIGN						
PIPE: <u>A-31 (Q)-A</u> ELECT: <u>-</u>				NORMAL & UPSET						
STEEL: <u>C-201 (Q)-C</u> HV.A.C.: <u>-</u>				EMERGENCY						
				FAULTED						
REV.	DATE	BY	CHK	DESCRIPTION	CUSTOMER CONSUMERS POWER CO.					
0	1/7/74	WGL	EBH	KP	ORDER OR CONT. NO. P.O. #7220-N-100-N					
1	10/2/75	GK	JM	G/KD	JOB NAME MIDLAND 1 & 2 HIGH. EXT. 2					
2	10/2/75	JM	EBH	WAT	MARK NO. 4-2HCB-18-43					
3	10/2/75	JM	PS	JM	SKETCH NO. 2-611-3-34					
4					SHEET 1 OF 2 REV 3					

Shop Weld No. Weld Procedure Exam. Procedure

THIRD PARTY INSPECTION YES NO
CODE CLASS: ASME - III-2

[illegible]

FOR MATERIALS AND OPERATIONS SEE SKETCH NO.

SHEET OF

ITT GRINNELL PIPE HANGER DIVISION						SEE SKETCH NO. _____ SHEET _____ OF _____						
REF. DRAWING NUMBERS						CONDITIONS	Fx	Fy	Fz	Mx	My	Mz
						DESIGN	—	—	—	—	—	—
						NORMAL & UPSET	—	-34 -305	—	—	—	—
PIPE: <u>M-60(0) 3</u> ELECT: <u>—</u>						EMERGENCY	—	-40 -305	—	—	—	—
STEEL: <u>C-222(0) 5</u> H.V.A.C.: <u>—</u>						FAULTED	—	—	—	—	—	—
REV.	DATE	ENG. BY	ENG. CHK.	OWN BY	CHK BY	DESCRIPTION	CUSTOMER CONSUMERS POWER CO.					
0	7/1/11	SW	SW	SW	SW		ORDER OR CONT. NO. F.O. #1220-2-100-20					
1	7/1/11	SW	SW	—	—		JOB NAME MIDLAND 1 & 2 RGR. SK. 17					
2							MARK NO. 27 2603-24-11					
3							SKETCH NO. 2-611-3-35					
4							SHEET 1 OF 1 REV. 1					

PS
All tolerances in accordance
with GSP #2A001 U.N.O.
Lab. Procedure is FM-101-10
All products designed in
accordance with EPL File No.1
REV-1

41	1-01-1-10	1-381502/271
Held No.	Held Procedure	Exam. Procedure

Block 20 continued

The field requests conditional release of item 1a, based upon receipt-inspection of the subject pipe hanger assemblies to the hanger sketch revisions included with each respective shipment. Bechtel shop inspector's releases are available on site for these shipments, and vendor certification to the purchase order has been supplied for each shipment.

PFE	<i>Carl Boer for T. Valmiano</i>	<i>11/30/76</i>
PFOCE	<i>John G. Kelly</i>	<i>12-1-76</i>
LQAE	<i>D. Z. Richardson</i>	<i>12-1-76</i>
AI	<i>Bren Labadie</i>	<i>12-1-76</i>

Conditional release not required. See field disposition results item 1a.

Robert S. Morrow
12/7/76 *filed* *12-7-76*

Block 21 continued.

Concur with engineering disposition.
Robert S. Morrow 11/18/77



NONCONFORMANCE REPORT (CONT'D)

1 PAGE 7 OF 7

14 NCR NO. 523

24. Disposition Concurrence Item 1b			
REWORK	REJECT	REPAIR	USE AS IS
X			
F. J. Brown PROJECT FIELD ENGINEER See Page 1		12/2/76 DATE	
M. J. Brown PROJECT ENGINEER		12-7-76 DATE	
M. J. Brown PROJECT CONSTR QC ENGINEER		12/7/76 DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item 2			
REWORK	REJECT	REPAIR	USE AS IS
			X
F. J. Brown PROJECT FIELD ENGINEER See Page 1		12/7/76 DATE	
M. J. Brown PROJECT ENGINEER		12-7-76 DATE	
M. J. Brown PROJECT CONSTR QC ENGINEER		12/7/76 DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 518		20. Page 1 of 5	
2. Unit(s) Auxiliary		3. Drawing/Part No. See Block 16		4. Item Description Pipe Hanger Assemblies		5. Item Location QC Hold Area	
6. P.O. Or Spec. No. 7220-M-106AC		7. Serial No. See Block 16		8. Replacement Part P/N _____ REV _____ SER NO. _____		9. Source Supplier	
10. Contractor/Supplier ITT Grinnell, Warren, Ohio		11. Inspection Criteria IR NO. R-1.00-265 ☐ DWG ☒ SPEC ☐ OTHER NO. M-209 Rev. 3		12. ASME AUTHORIZED INSPECTION REQ'D ☒ YES ☐ NO		13. SKETCH ATTACHED ☒ YES ☐ NO	
14. Discovered During ☒ REC'G ☐ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ FLD		16. Nonconforming Condition: Purchase Order 7220-M-106AC, Rev. 2, Item A states in part: "Parts lists required shall contain the name and number of every part for the equipment and its auxiliaries including drawings in sufficient detail to locate and identify each part." A. Contrary to the above, the packing list does not agree with the drawings sent with the shipment on the following listed hanger pipe support assemblies. The G-321-D for this shipment references the packing list as		24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS DGC. B	
17. Reported By Robert S Morrow 9/10/76		18. Validated By J. Almonally 9-10-76		25. Disposition Results A. Hangers received to corrected documentation supplied by the vendor Robert S. Morrow 12/31/76 B. Concur with project engineering disposition. Revised hanger sketch has been received. Robert S. Morrow 11/19/77		26. QC Acceptance Robert S. Morrow 11/19/77 QC ENGINEER J. Almonally 11/19/77 AUTHORIZED INSPECTOR	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)		22. ☒ Field Engineering Disposition A. B. FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING B) Project Engineering is requested to change the drawing to show item two as a "B" beam. We suggest "use as is" disposition.		23. Project Engineering Disposition The "I Beam" listed in item number 2 of "materials and operations" is a typing error only. Grinnell will revise and reissue the hanger sketch to read "B Beam" as was intended and delivered to the site. Use "as is."		27. QC Acceptance Robert S. Morrow 11/19/77 QC ENGINEER J. Almonally 11/19/77 AUTHORIZED INSPECTOR	

Block 16 continued
the traceable document.

Packing List Drawings

Drawings Sent

Hanger Shipping

Hanger

Referenced

With Shipment

Order

MK #

0-619-7-13 Rev. 2

Rev. 3

E-ME-076

26-OHBC-20-H13

1-619-7-23 Rev. 1

Rev. 2

E-ME-076

10-1HBC-101-H3

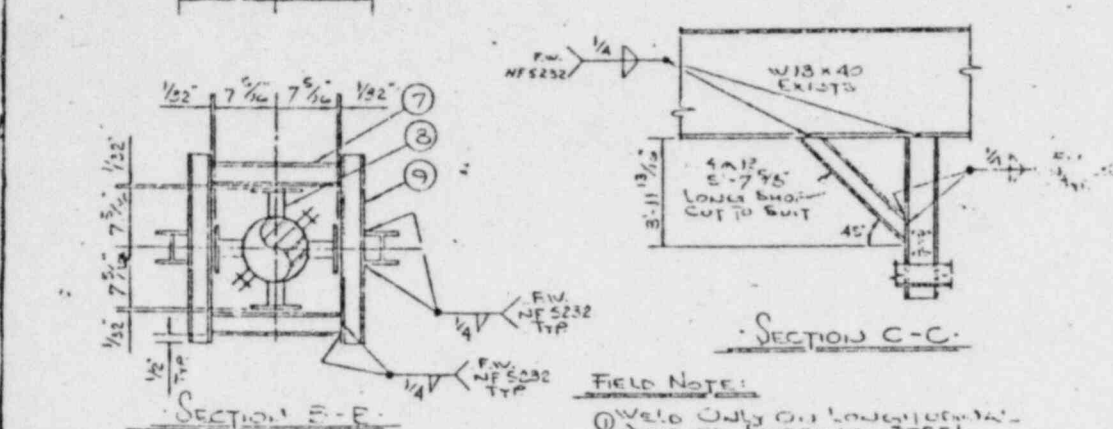
B. Contrary to the above, pipe hanger assembly part item 2 listed in sketch 1-619-7-25, Rev. 1 calls for one 6" I beam @ 12# / ft.; one 6" B beam @ 12# / ft. was delivered. The American Institute of Steel Construction does not list I beams at 12# / ft. The status of this beam is indeterminate - See exhibit A.

Nonconformance noted during receipt inspection. "Q" number is 4.191. Hold pending disposition. 3 hold tags applied.

A) The material supervisor is to contact the vendor and obtain a corrected packing list showing the drawing revisions to which these hangers were fabricated.

Block 22 cont'd.

L.E. Farrow 9/29/76
H. Pulito 9-29-76

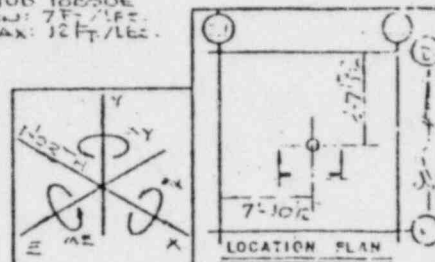


- 1) All tolerances in accordance with QCP #CA001 U.N.O.
- 2) Fab. Procedure is PH-101-10
- 3) All products designed in accordance with ETL File No.1

PIPE ISO. HG-19-54.7(Q)A
DATA POINT 673
PIPE MAT'L. SA-106-GR B
NSUL. 2" AREA 1

① WELD ONLY ON LONGITUDINAL
AXIS OF EXISTING STEEL.

② STUD TOGGLE
MIN: 7Ft / Lf.
MAX: 12Ft / Lf.



THIRD PARTY INSPECTION
CODE CLASS: ASVE III - 3

ITEM NO.	MATERIALS & OPERATIONS	QUANTITY	REQ.	ISS.	PRG.	SEC.
	SEISMIC PIPE RESTRAINT CONSISTING OF:	ONE				
1	6" M-Beam @ 12#/ft., 5'-8" long, T.W.=68# (SA-36)	1				
2	6" I-Beam @ 12#/ft., 5'-10 1/4" long, T.W.=70#(SA-36)	1				
3	4" M-Beam as detailed, T.W.=69# (SA-36)	1				
4	2" Wide flange @ 15.5#/ft., 5'-3" long, T.W.=81#(SA-36)	1				
5	4" M-Beam as detailed per Section A-A & C.C., T.W.=147#(SA-36)	2				
6	6" Wide flange @ 15.5#/ft., 5'-1" long, T.W.=79#(SA-36)	1				
7	4" M-Beam @ 13#/ft., 1'-2 11/16" long, T.W.=32#(SA-36)	2				
8	10 3/4" O.D. pipe clamp assembly per Detail "A", T.W.=48#	1				
9	4" M-Beam @ 13#/ft., 1'-3 5/8" long, T.W.=34#(SA-36)	2				
	SEISMIC ASSEMBLY SKETCH & ENGINEERING	1				
	BUNDLE & TAG	1				
	MARK: #10-1HBC-101-115					
	MATERIAL TO BE PAINTED IN ACCORDANCE WITH STANDARD SPECIFICATION FC-49					
	APPROVED BY: <i>[Signature]</i>					
	DATE: <i>1-7-66</i>					
	CRITICAL					
	QUANTITY					

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. 1-6-9-725 SHEET 2 OF 2

ITT GRINNELL PIPE HANGER DIVISION						CONDITIONS						Fx	Fy	Fz	Mx	My	Mz	
REF. DRAWING NUMBERS						DESIGN												
PIPE: <u>406.35 IN. DIA.</u> ELECT: <u> </u>						NORMAL & UPSET						<u>14.5</u>		<u>1.8</u>				
STEEL: <u>C-255 (S) 2</u> HV.A.C.: <u> </u>						EMERGENCY								<u>2.4</u>				
						FAULTED												
REV.	DATE	ENR. BY	ENO CHK	DWN. BY	CHK BY	DESCRIPTION	CUSTOMER CONSUMERS POWER CO.											
0	1-14-75	EPH	WGL	ETS	WGL		ORDER OR CONT. NO T.O. #7220-K-106.											
1	12-27-75	JMS	WGL	JAL	WGL		JOB NAME MIDLAND 1 & 2 HGR. NAT'L											
2							MARK NO. <u> </u>											
3							SKETCH NO. <u>1-619-7-25</u>											
4							SHEET <u>3</u> OF <u> </u> REV. <u> </u>											



NONCONFORMANCE REPORT (CONT'D)

PAGE 5 OF 5

14 NCR NO. 518

24. Disposition Concurrence Item B			
REWORK	REJECT	REPAIR	USE AS IS
			X
<i>R. A. Brown</i>		12/21/76 (B)	
PROJECT FIELD ENGINEER		DATE	
Seg Page 1			
PROJECT ENGINEER		DATE	
<i>W. H. Hall</i>		12-7-76	
PROJECT CONSTR QC ENGINEER		DATE	
<i>W. H. Hall</i>		12/7/76	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	

24. Disposition Concurrence Item			
REWORK	REJECT	REPAIR	USE AS IS
PROJECT FIELD ENGINEER		DATE	
PROJECT ENGINEER		DATE	
PROJECT CONSTR QC ENGINEER		DATE	
AUTHORIZED INSPECTOR		DATE	



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 554553		20. Page 1 of 2					
2. Unit(s) II		3. Drawing/Part No. N/A		Rev N/A		4. Item Description Cadweld Testing Frequency		5. Item Location Containment			
6. P.O. or Spec No. C-231 Rev. 11		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 ☐ DWG ☒ SPEC ☐ OTHER NO. C-231 Rev. 11		IR NO. N/A		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO		13. SKETCH ATTACHED ☐ YES ☒ NO		14. Discovered During ☐ REC'G ☒ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☐ ENG ☒ FLD	
16. Nonconforming Condition: Specification 7220-C-231 Q Revision 11, Section 10.13.5 states that . . . "Production splices shall not be removed from curved reinforcing bars for tensile testing; for T-series splices on curved bars, separate sister splice test cycles shall be established for horizontal, vertical, and diagonal positions and for each bar size as follows: (see page 2)								24. Disposition Concurrence			
								REWORK REJECT REPAIR USE AS IS			
								PROJECT FIELD ENGINEER DATE 1-4-77			
								PROJECT ENGINEER DATE 12-22-76			
								PROJECT ENGINEER DATE 1-6-77			
								PROJECT CONSTR QC ENGINEER DATE			
								AUTHORIZED INSPECTOR DATE			
17. Reported By D.T. Davis		Date 10-5-76		18. Validated By J.B. Betts		Date 10-5-76		25. Disposition Results			
21. Routing		☒ TO FIELD ENGINEERING		☐ TO OTHERS (SPECIFY)							
22. ☐ Field Engineering Disposition		☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING									
Use as is. The field recommends testing two (2) additional sister splices for the next 100 splices to insure adequate testing. This will make a total of five (5) sister splices for the next 100 splices.											
J.B. Betts 11-4-76 11/4/76 11/4/76											
23. Project Engineering Disposition											
see page 2 of 2											
26. QC Acceptance											
QC ENGINEER DATE 1/6/77											
AUTHORIZED INSPECTOR DATE											

One sister splice for the first 10 production splices
 Four sister splices for the next 90 production splices
 Three sister splices for the next and subsequent units
 of 100 splices."

Contrary to the above, only two (2) sister splices were
 taken for the next 90 productions in Unit 2 Containment
 between 10-30-74 and 6-2-76 for #18 curved bars.

Nonconformance found during review of Frequency Test
 Reports. Q-List 1.104

No Hold Tags applied.

23. Project Engineering Disposition:

1) During the second set of 100 production splices (from 101 to 200), two (2) additional sister splices were tested and thus the total number of sister splices tested for the first 200 splices is eight (8). Eventhough the testing frequency does not meet the Specification requirements, the total number of required tests have been made for the first 200 cadwelds.

2) The total number of cadwelds and the total number of tests during last 3 years are as follows:

	Total Number of Cadwelds	Total Number of Tests
1974	2851	116
1975	823	30
1976	597	23

There have been no failures during testing.

Based on the above, Engineering concurs with the Field Engineering recommended position to "use as is".

ALD 12/15/76

Terrell

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 559	20. Page 1 of 2
2. Unit(s) Units 1 & 2	3. Drawing/Part No. 7220-M120-38	Rev 5	4. Item Description 12"-150" Carbon Steel Gate Valve	5. Item Location QC Hold Area	
6. P.O. or Spec No. 7220-M120AC	7. Serial No. E-6046-4-1 E-6046-3-1	8. Replacement Part P/N N/A	9. Source Supplier	10. Contractor/Supplier Anchor / Darling Valve Company	
11. Inspection Criteria ☐ DWG ☒ SPEC ☐ OTHER NO. M-120		12. ASME AUTHORIZED INSPECTION REQ'D ☒ YES ☐ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☒ REC'G ☐ CONST ☐ TEST	15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ FLD
16. Nonconforming Condition: Spec 7220-M120, Rev 4, Para 11.2 states: "After cleaning and drying, internal surfaces of ferritic steel valves shall be coated with a water soluble preservative." Contrary to the above, two valves, Item # 5.3 & 5.4 have a film of rust on the internal surfaces of the valves. Nonconformance noted during receipt inspection. "Q" number is indeterminate. 2 hold tag(s) applied. Hold pending final disposition.				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS X	
17. Reported By Helen Bolen Date 10-6-76		18. Validated By R. Terrell Date 10-6-76		25. Disposition Results	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)					
22. ☒ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
Field Engineering inspection reveals an internal surface discoloration rather than a light film of rust. Neither rust or discoloration exists on the seating surfaces of the seats or discs. The valves are moisture free and contain desiccant. The internal surface discoloration will not affect the integrity or operation of these valves, therefore Field Engineering recommends "Use as is". R. Terrell 10-12-76 95. Paul 10-12-76					
23. Project Engineering Disposition A Field Engineering inspection of the discoloration on the I.D. surfaces of the valve indicates that the discoloration is a very fine rust blush. Seats and discs are free of discoloration. The insides of the valves are now dry and contain desiccant. No scaling or heavy rust is present. Disposition is to "use as is."					
26. QC Acceptance Helen Bolen Date 1-9-77 R. Terrell Date 1-4-77 TH. Page Date 1-16-77				26. QC Acceptance Helen Bolen Date 1-9-77 R. Terrell Date 1-4-77 TH. Page Date 1-16-77	

LEAVE IN CROSSED OUT BY MISTAKE BT 11/23/76

REVIEW

23. PROJECT ENGINEERING DISPOSITION

Anchor/Darling cleaning procedures (Vendor Print numbers 7220-M-120-31, 57 and 58) were approved. These procedures did not specify the use of a water soluble preservative as required by Paragraph 11.2 of Specification M-221. CPCo Plant Design Guide paragraph 6.1.5 prohibits the use of protective coatings. SCN No. 2 to 7220-M-120 deleted the requirement for water soluble preservative. Water soluble preservatives which would be flushed out of valves during startup would possibly cause cleaning problems and/or contamination of pipe and equipment downstream.

Since there is no water soluble preservative, we must expect that a small amount of light rust film may occur from time to time. Loose rust will be removed as a part of system startup flushing procedures.

Valves listed on this NCR are part of the component cooling water system which has been classified as cleanness class "C" by BEBC-1099 dated 7/16/76. Additionally, BEBC-1099 states that the level of cleanliness should comply with ANSI N45.2.1-1973. For class "C" components ANSI N45.2.1 states in part that "1. Thin uniform rust films are acceptable on carbon steel surfaces."

Based on the above, Engineering feels that there is no reason for an NCR and that the disposition of these valves should be "used as is."

R.P. Toms 11/29/76
Thw 11/29/76

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 560		20. Page 1 of 2	
2. Unit(s) 2		3. Drawing/Part No. 2P-60B		Rev N/A		4. Item Description Decay Heat Removal Pump-B&W No. 2DH-PIB	
5. Item Location WHSE		6. P.O. Or Spec No. ML.17		7. Serial No. 2P-60B		8. Replacement Part P/N N/A REV	
9. Source Supplier		10. Contractor/Supplier B&W (NPGD Lynchburg, Va.)		11. Inspection Criteria ☐ DWG ☐ SPEC ☒ OTHER		12. ASME AUTHORIZED INSPECTION REQ'D ☒ YES ☐ NO	
13. SKETCH ATTACHED ☐ YES ☒ NO		14. Discovered During Document Review		15. Equip Furnished By ☒ CLIENT ☐ ENG ☐ FLD		16. Nonconforming Condition: PSP #14, Rev. #2 paragraph 5.1.1 states: "Upon receipt of a B&W Quality Assurance Document File, the Quality Control Documentation Coordinator will forward the document file to the discipline Lead Quality Control Engineer for review." Contrary to the above, the Quality Documentation Package has not been received at the jobsite. Q.# 4.103 1 Q.C. Hold Tag applied.	
24. Disposition Concurrence		REWORK		REJECT		REPAIR	
USE AS IS		DCC		PROJECT FIELD ENGINEER		DATE 1/12/77	
PROJECT ENGINEER		DATE 1-12-77		PROJECT CONST. QC ENGINEER		DATE 1-12-77	
AUTHORIZED INSPECTOR		DATE		AUTHORIZED INSPECTOR		DATE	
17. Reported By Frank Mahela		Date 10-8-76		18. Validated By A.D. Foster		Date 10/2/76	
21. Routing ☐ TO FIELD ENGINEERING		☒ TO OTHERS (SPECIFY) Babcock & Wilcox		25. Disposition Results Disposition Received at the Job Site. Documentation Received Satisfactorily. NO FURTHER Disposition Required. A.D. Foster 1-11-77		26. QC Acceptance 1-13-77 QC ENGINEER A.D. Foster AUTHORIZED INSPECTOR DATE 1-13-77	
22. ☐ Field Engineering Disposition		☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING		23. Project Engineering Disposition		24. Disposition Concurrence	
OBTAIN THE B&W QUALITY ASSURANCE DOCUMENT FILE.		A.D. Foster 1/14/77		23. Project Engineering Disposition		24. Disposition Concurrence	

BECHTEL

NONCONFORMANCE REPORT (CONT'D)

PAGE 2 OF 2

14. NCR N

60

To allow the installation of pump and the continuation of erecting pipe spools in the Auxiliary Building, the field is requesting that the pump 2P60-B be released from the Warehouse and allow the pump to be installed in a "stored condition" ie: No connection or attachments are to be permanently installed to the pump. The pump is to remain in a "Retrievable Condition" until such time that the proper documentation can be received and approved by the site.

Concurred by

PFE

Concurred by

PFQCE

Concurred by

QAE

Concurred by

Authorized Inspector

Conditional Release not Approved, Dec 4. At Rivergate pump is an ASME item. THE Code data Reports as required by PEP G-3.2 Rev 2 Sect 3.4 PARA. 7 are NOT BEEN RECEIVED AT THE JOB SITE.

R.T. Stiles for G.L. Richardson 10/21/76
 10/21/76

Copy Data Report Rec. 10-21-76. Equipment may be released on a Conditional basis.
 J.L. Gibson 10-21-76

BECH

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 567		20. Page 1 of 6	
2. Unit(s) 1 & 2		3. Drawing/Part No. C-210 C-219 C-282 C-140		5 Rev 8		4. Item Description Rebar	
6. P.O. or Spec No. C-231		7. Serial No. N/A		8. Replacement Part P/N N/A REV N/A		9. Source Construction	
10. Contractor/Supplier N/A		5. Item Location Aux. Bldg., Elev. 568'-0"		11. Inspection Criteria ☒ DWG ☐ SPEC ☐ OTHER		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	
13. SKETCH ATTACHED ☒ YES ☐ NO		14. Discovered During ☐ REC.G ☒ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☐ ENG ☒ FLD		16. Nonconforming Condition:	
24. Disposition Concurrence		REWORK		REJECT		REPAIR	
USE AS IS							
Item 1. Dwg. C-210, Rev. 5 calls for #9 @ 12" horizontals each face at "F" line wall. Contrary to the above at the construction opening 5'6" east of 5.6 line both sides of the opening have 1 #9 each face have been omitted.		PROJECT FIELD ENGINEER <i>A. Boon</i>		DATE 1/12/77			
Item 2. Dwg. C-219, Rev. 8 calls for #11 @ 12" verticals each face at "F" line wall. Contrary to the above at the construction opening 1 #11 each face have been omitted at the bottom of the opening.		PROJECT ENGINEER <i>J. Sullivan</i>		DATE 1/1/77			
		PROJECT ENGINEER <i>J. Sullivan</i>		DATE 1-13-77			
		PROJECT CONSTR QC ENGINEER		DATE			
17. Reported By <i>FOOTE</i>		Date 1-15-76		18. Validated By <i>J. Sullivan</i>		Date 10-15-76	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)		25. Disposition Results					
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING							
Item numbers below relate to corresponding item numbers in block 16.							
Item #1: This is not a nonconforming condition. In the 9'5" length, the area of steel required is #11 @ 12". Starting the 1st bar S/2 from the bottom face and continue the bars @ 12", 9 bars are required. 9 bars are installed in each face of both sides of the construction opening. (cont on page 7)							
23. Project Engineering Disposition							
The safety of the structure with the existing condition of rebar reported in the NCR was studied and the calculations are filed in the Engineering Files. The structural capacity is adequate and no safety implications are involved. Hence, Project Engineering recommends "use as is".							
(Contd. see page 2)		26. QC Acceptance <i>J. Sullivan</i>		DATE 1/13/77			
		QC ENGINEER		DATE			
		AUTHORIZED INSPECTOR		DATE			

SECRET

BLOCK #16 CONTINUED:

NONCONFORMANCE REPORT (CONT'D)

1 PAGE 2 OF 7

14. NCR NO

7

Item 3. Dwg. C-210, Rev. 5 calls for #9 @ 12" horizontals each face at "F" line wall. Contrary to the above at the construction opening 6'-0" west of 7.4 line 1 #9 each face have been omitted on the west side of the opening.

Item 4. Dwg. C-219, Rev. 8 calls for #11 @ 12" verticals each face of "F" line wall. Contrary to the above at the construction opening 6'-0" west of 7.4 line 1 #11 each face have been omitted in the bottom of the opening.

Item 5. Dwg. C-282, Rev. 7 calls for #8 @ 9" verticals at "D" line wall. Contrary to the above at the construction opening 4'-9" west of 7.4 line 1 #8 at the top of the opening has been omitted and 1 #8 at the bottom has been omitted.

Item 6. Dwg. C-282, Rev. 7 calls for #8 @ 9" verticals at "D" line wall. Contrary to the above at the construction opening 4'-9" east of 5.6 line 1 #8 in the top of the opening has been omitted.

Item 7. Dwg. C-1140, Rev. 9 states to provide equal area for area interrupted. Contrary to the above of the construction opening 4'-9" east of 5.6 area provided is not equal to area interrupted, 1 #8 has been omitted in the top of the opening.

Nonconformances noted by Project Engineering review of marked-up as found drawings.

Q-List 1.203.

4 Hold Tags Applied.

Block # 23 Project Engineering Disposition: (Contd.)

2nd line of item 1 of Block # 16 should read "contrary to the above at the construction opening 6'-0" east of 5.6 line 1-#9 ea. face have been omitted for both sides of the opening".

✓✓ 1-6-77
[Signature] 1-6-77



CALCULATION SHEET

0510 (8-71)

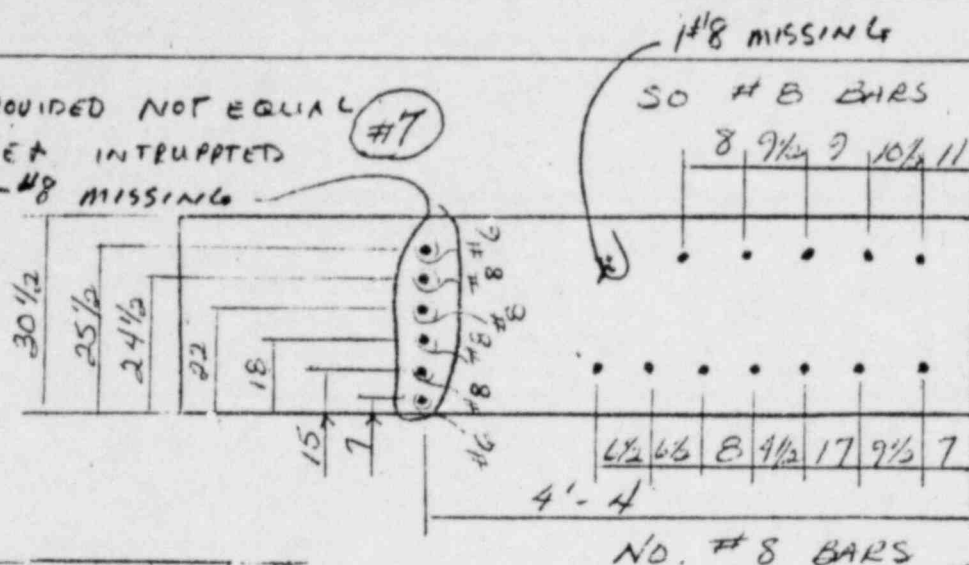
DATE _____

DESIGN BY _____ NOTE: _____ DATE _____ CHECKED BY _____ SHEET NO. _____

PROJECT _____ NUMBER IN CIRCLE IS NCR 567 ITEM NUMBER _____

JOB NO. _____

SUBJECT _____ FILE NO. _____

AREA PROVIDED NOT EQUAL
TO AREA INTERRUPTED
1-#8 MISSING5 #6 BARS

35 1/2 35 34 35 35 1/2 35

6 11 12 14 1/2 10 1/2 11 12 1/2

N #6 BARS

9'-6"

9'-5"

N #6 BARS

5 1/2 11 1/2 12 12 1/2 11 1/2 11 1/2 12 12 1/2 10 1/2

No.

#8 #9 #8 #9 etc.

7 7 11 1/2 8 1/2 8 1/2 9 10 1/2 9 1/2 8 1/2 11 8 8 1/2 8 1/2 2

#8 #9 #8 #9 etc.

50.

7 1/2 6 1/2 12 1/2 5 1/2 8 10 7 12 1/2 10 9 6 8 1/2 5 1/2 9 1 1/2

ELEVATION AT 'D' LINE

ELEV 568'-0

4'-9 E. OF 5 L. LICKING NORTH

567 20 #6 BARS

NCR 567

Page 3

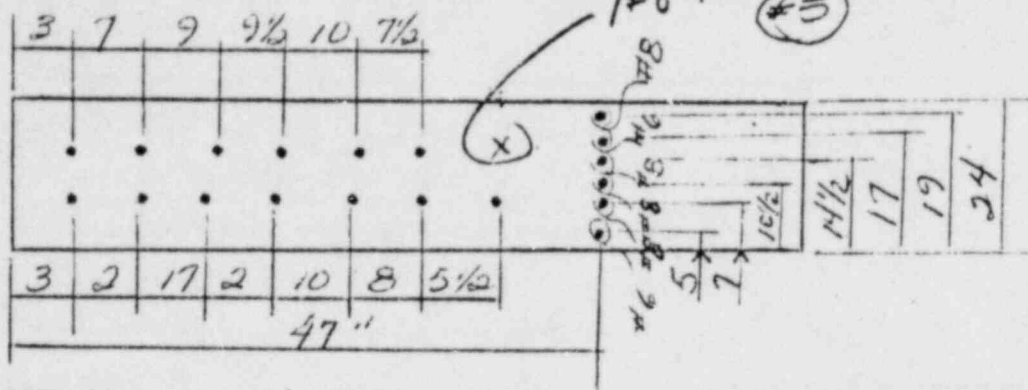
67

DESIGN BY _____ DATE _____ CHECKED BY _____ SHEET NO. _____

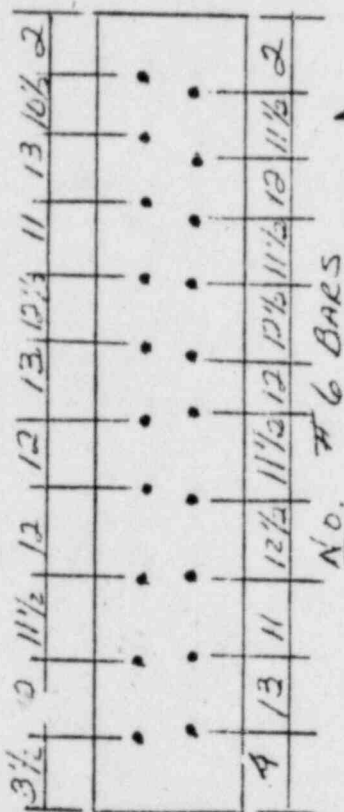
PROJECT _____ JOB NO. _____

SUBJECT _____ 48 Miss. FILE NO _____

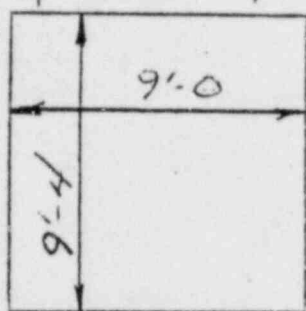
S #8 Bx125



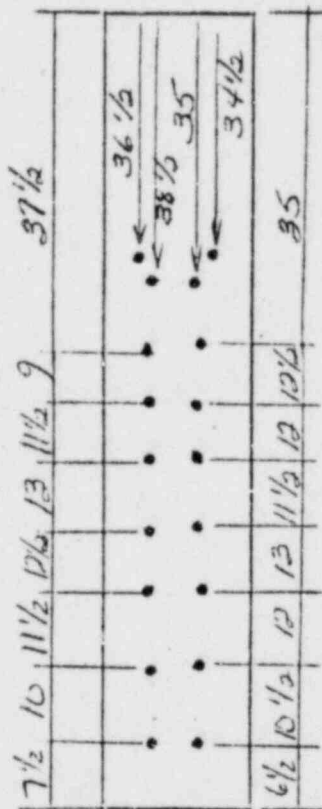
50 #6 Bars



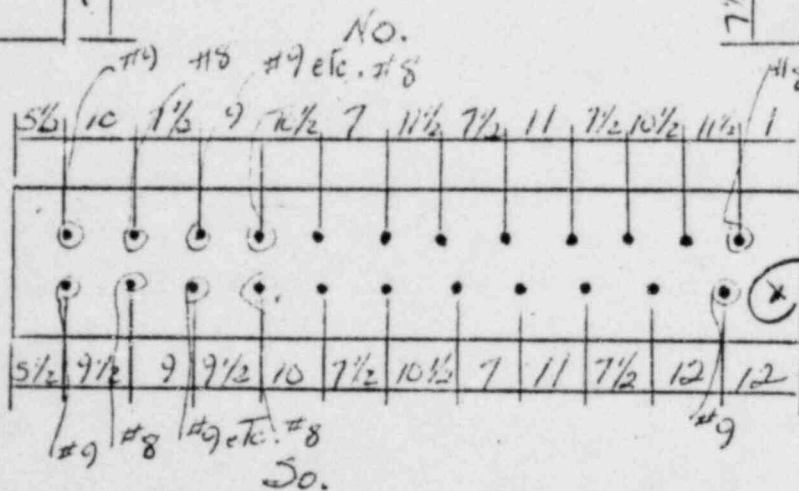
N[#] 8 B, 125



N # 6 BARS



S # 6 BALS



148 MISSING
#5

ELEVATION AT 'D' LINE

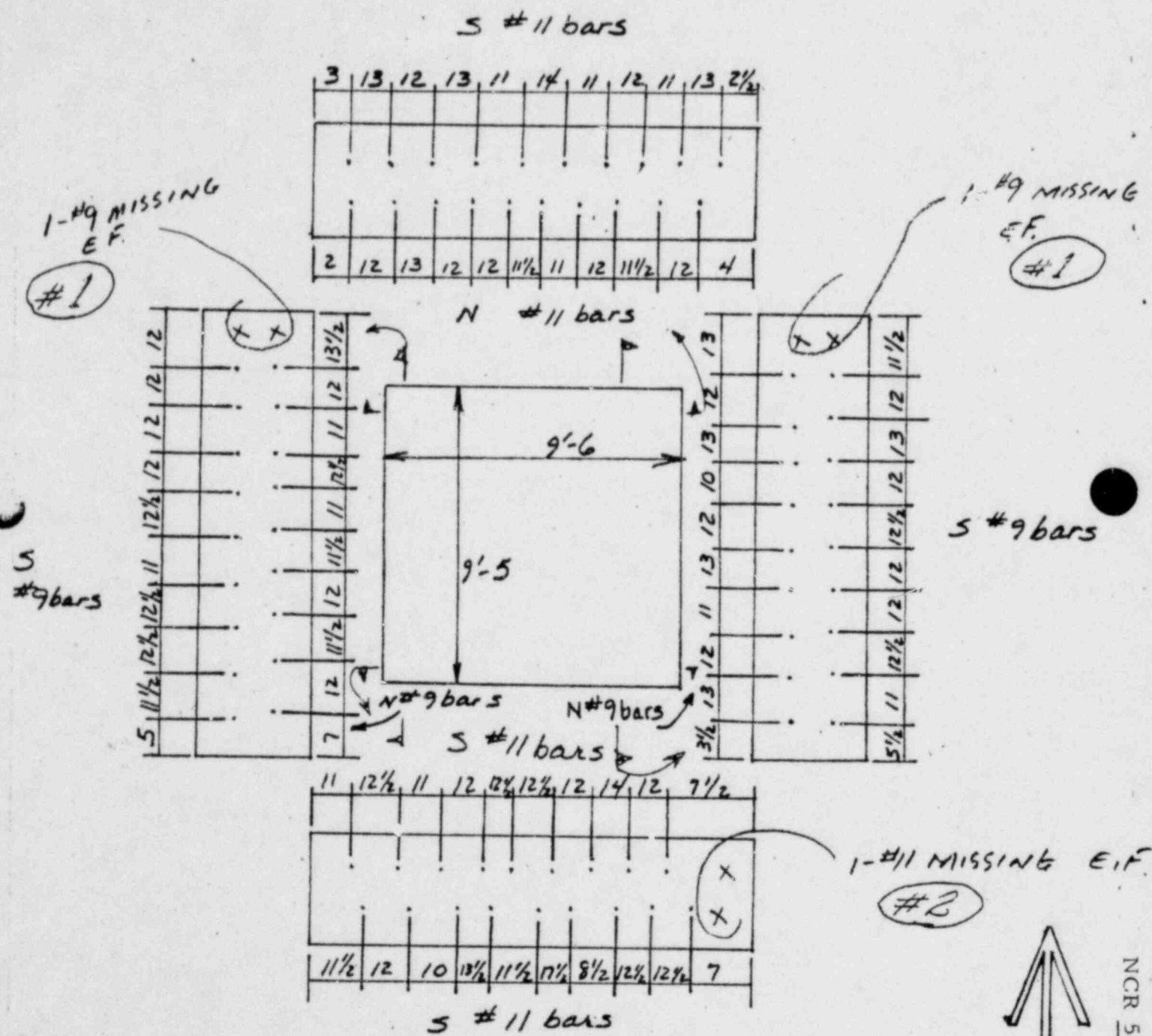
ELEV. 568'-0



CALCULATION SHEET

0510 (5-7H)

DESIGN BY _____ DATE _____ CHECKED BY _____ SHEET NO _____
PROJECT _____ JOB NO _____
SUBJECT _____ FILE NO _____



ELEVATION AT 'F' LINE

5'-6 E. of 5.6 LINE LOOKING NORTH

ELEV. 568'-0

NOTE: DIM. ± 1/2"

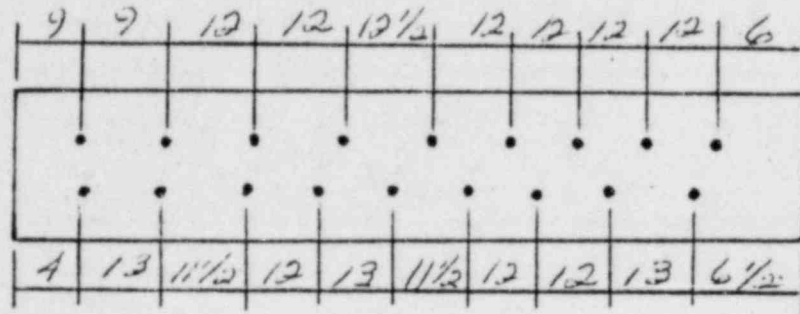


CALCULATION SHEET

OS10 (5-71)

DESIGN BY _____ DATE _____ CHECKED BY _____
PROJECT _____ JOB NO. _____
SUBJECT _____ FILE NO. _____

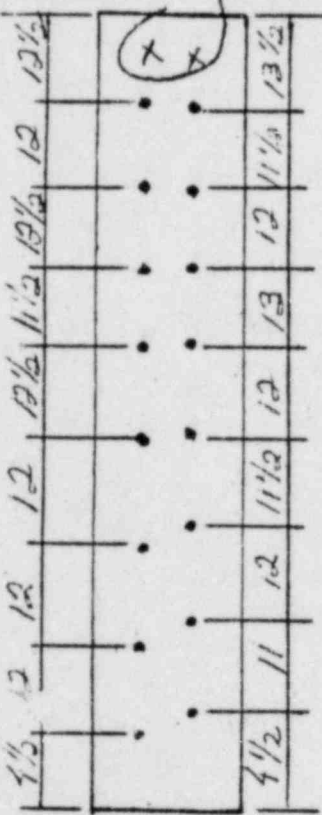
#3
1-#9 MISSING
EF



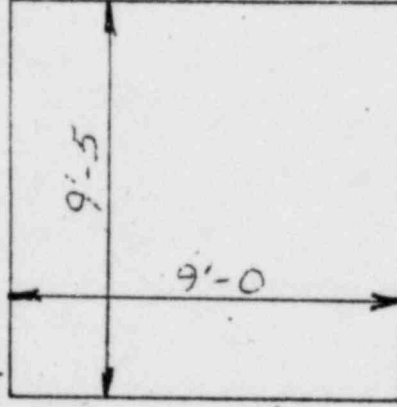
5 #11 BARS

N #11 BARS

5 #9 BARS

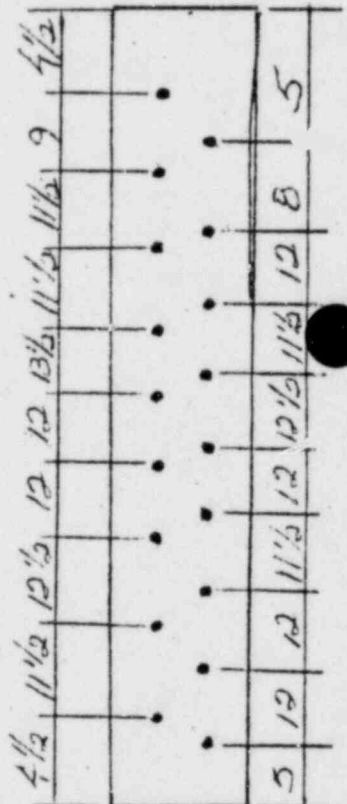


N #9 BARS



N #9 BARS

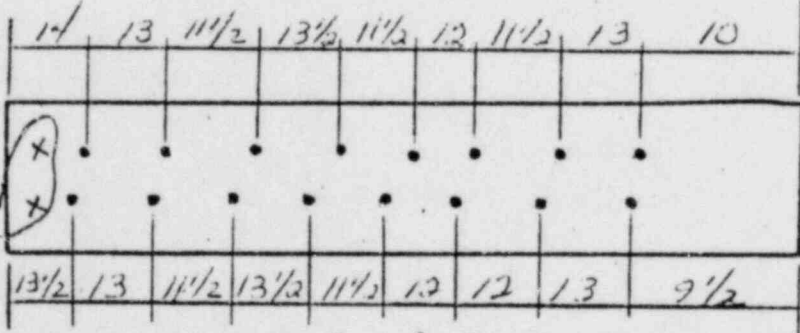
N #11 BARS



5 #9 BARS

1-#11 MISSING
EF

#4



5 #11 BARS

ELEVATION AT 'F' LINE

6'-0 W. OF 'I' LINE LOOKING NORTH

TD ± 1/2"

Block 22 continued

The field requests conditional release of item A, based upon receipt-inspection of the subject pipe hanger assemblies to the hanger sketch revisions included with each respective shipment. Bechtel shop inspector's releases are available on site for these shipments, and vendor certification to the purchase order has been supplied for each shipment.

PFE	<i>Al. B. Fort. Valenzuela</i>	<i>11/30/76</i>
PFQCE	<i>Al. B. Fort. Valenzuela</i>	<i>12-1-76</i>
LQAE	<i>Al. B. Fort. Valenzuela</i>	<i>12-1-76</i>
AI	<i>Al. B. Fort. Valenzuela</i>	<i>12-1-76</i>

Conditional release not required. See disposition results item A.

Item 5 Monow
12/3/76
Al. B. Fort. Valenzuela

Block 22 (con't)

Spacing is within tolerances of the spec and the area of steel is satisfied.

Item #2: Same as Item #1

Item #3: Drill a hole for each missing dowel, a dowel diameter plus 1" (min), in diameter, fill the hole with non-shrink grout (Embeco 636) and set dowels in accordance with embedment and splice lengths prescribed on Dwg. C-211 Rev. 4.

Item #4: Over a 1'0" vertical length, at the bottom and along the east side of the construction opening, 1#11 E.F. is partially exposed, indicating that the required #11's are installed. Since the bars are present, this is not a nonconforming condition.

Item #5: For the top dowel: in the 47" length, #8 @ 9" are required, starting the first bar S/2 from one face and continuing bar @ 9", 6 bars are required. 6 bars are installed on the north face and 7 bars are installed on the south face. Spacing is within spec. and the area of steel is satisfied. This not a nonconforming condition. For the bottom dowel: same as Item #3.

Item #6: Same as Item #3.

Item #7: Same as Item #3.

William 10-25-76
Lee G. Fegus 10/25/76

NONCONFORMANCE REPORT

1. Project Name Midland Nuclear Power Plant		Job No. 7220		19. No. 590	20. Page 1 of 2
2. Unit(s) 2	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Testing Frequency	5. Item Location Containment #2	
6. P.O. Or Spec No. C-208, Rev. 7	7. Serial No. N/A	8. Replacement Part P/N N/A REV _____	9. Source Subcontractor	10. Contractor/Supplier U. S. Testing	
11. Inspection Criteria ☐ DWG ☒ SPEC ☐ OTHER NO. N/A C-208, Rev. 7		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC.G ☐ CONST ☐ TEST ☒ REVIEW	15. Equip Furnished By SUBCONTRACTOR
16. Nonconforming Condition: Specification C-208 states, "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." Contrary to this concrete placed 10/20/76 (CC(683.25)a') was sampled at Ticket #11000 (232 yards) and Ticket #11014 (336 yards) at an interval of 104 cubic yards, thereby exceeding the 100 cubic yard interval. One hold tag applied. Q-List is 6.101.			24. Disposition Concurrence REWORK ☐ REJECT ☐ REPAIR ☐ USE AS IS ☒		
17. Reported By <i>James L. L...</i> Date 11/5/76			18. Validated By <i>W. A. O. ...</i> Date 11-8-76		
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)			25. Disposition Results		
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING 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) For the subject pour, six (6) sets of strength specimens were taken at the batch plant; giving an overall frequency of 83.7 c.y. per set of strength cylinders. 2) For pour CC(683.25)a', 28 day strength results from cylinders cast at the batch plant averaged 5157 psi. Field cast companion cylinders for the same pour			26. QC/Accompanee <i>W. A. O. ...</i> 11/9/77 QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		

(Contd.)

SECRET

NONCONFORMANCE REPORT (CONT'D)

1. PAGE 2 OF 2

INSTR NO 590

Block # 23 Project Engineering Disposition (Contd.)

averaged 6285 psi at 28 days. The required strength is 6000 psi at 90 days.

ALD 1/4/77
RNNAL 1-4-77
1-4-77

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 591		20. Page 1 of 2	
2. Unit(s) 2		3. Drawing/Part No. N/A		Rev N/A		4. Item Description Test Frequency	
6. P.O. Or Spec No. C-230, Rev. 7		7. Serial No. N/A		8. Replacement Part P/N N/A REV N/A SER NO. N/A		9. Source Subcontractor	
11. Inspection Criteria ☐ DWG ☒ SPEC ☐ OTHER		IR NO. C-1.30-16 NO. C-230, Rev. 7		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO		13. SKETCH ATTACHED ☐ YES ☒ NO	
14. Discovered During		15. Equip Furnished By		10. Contractor/Supplier U. S. Testing			
16. Nonconforming Condition: Spec. C-230, Rev. 7 Para. 9.1.3 requires slump and temp. tests to be performed every 35 c.y. produced. On 11/1/76, Pour No. CC(602.3)a', tests were run on Ticket No. 11238 (264 c.y.) but not run again until Ticket No. 11243 (304 c.y.) exceeding the 35 c.y. requirement by 5 c.y. 1 Hold tag applied. Q-List No. 6.101.		24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS					
17. Reported By George Sub		Date 11/5/76		18. Validated By H. E. Tate		Date 11-8-76	
21. Routing ☒ TO FIELD ENGINEERING		☐ TO OTHERS (SPECIFY)					
22. ☐ Field Engineering Disposition		☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
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) For the subject 297 c.y. pour ten (10) slump and temperature tests were taken at the truck discharge giving an overall frequency of 29.7 c.y. per tes.							
2) The results of all slump and temperature tests taken at the truck discharge were acceptable.							
26. QC ENGINEER D. H. Brown		DATE 11/18/77		AUTHORIZED INSPECTOR		DATE	

(CONTD.)

BECHT

Block # 23 Project Engineering Disposition: (Contd.)

- 3) For pour CC(602.3)a', 28 day strength results from cylinders cast at the batch plant averaged 4860 psi. Required 90 day strength is 5000 psi.
- 4) Concrete under ticket No. 11242 (296 c.y.) was sampled at the batch plant and had a slump of 4 1/2" and a temperature of 59°F. Although samples were not taken at the truck discharge for ticket No. 11242, correlation with other batch tickets under pour CC(602.3)a' would give acceptable slump and temperature values at the truck discharge.

ALD 1/4/77
RPM 1-4-77



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. 592 No.	20. 1 of 1 Page
2. Unit(s) Common	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Concrete Air Content	5. Item Location Cont. No. 2 Elev. 619.5'	
6. P.O. Or Spec No. C-230, 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 Champion, Inc.
11. Inspection Criteria ☐ DWG ☒ SPEC ☐ OTHER		IR NO. C-1.30-17 NO. C-230, Rev. 7	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC'G ☐ CONST ☒ TEST ☐ CLIENT ☐ ENG ☐ FLD
16. Nonconforming Condition: Spec. C-230, Rev. 7, Para. 9.1.5 requires that air content be maintained between 3-6%. On 11/2/76, Pour No. C(619.5)a, an air test was run on delivery ticket No. 11269. Contrary to requirements, resulting test was 6.4%. Field cylinders were cast from end of line sample. 1 Hold tag applied. Q-List No. 1.101.			24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS PROJECT FIELD ENGINEER DATE 1/12/77 PROJECT ENGINEER DATE 1/6/77 PROJECT CONSTR QC ENGINEER DATE 1-12-77 AUTHORIZED INSPECTOR DATE		
17. Reported By George S. [Signature] Date 11/5/76		18. Validated By [Signature] Date 11-8-76		25. Disposition Results	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)					
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
Higher air content will tend to decrease strength and increase durability. This pour was the feedwater isolation valve chamber slab poured with D-2 concrete. Cylinder set 1139 cast at the batch plant had 28 day strengths of 4520 psi, 4030 psi. Field set 1140 F had 28 day strengths of 5370 psi and 5220 psi. Use as is. [Signature] 12/5/76					
23. Project Engineering Disposition High air content would tend to reduce concrete strength while increasing the durability of the concrete. Required 90 day strength for this D-2 mix is 5000 psi. Project Engineering concurs with the Field Engineering recommended disposition to "use as is" based on the fact 28 day strength averaged 4275 psi for cylinder set 1139 and 5295 psi for Field set 1140 F. The 90 day strength average for set 1139 is estimated to be 5200 psi. ALD 1-5-77 R. M. [Signature] 1-5-77 [Signature] 1-5-77					
26. QC Acceptance [Signature] 1-12-77 QC ENGINEER DATE AUTHORIZED INSPECTOR DATE					



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 07220		19. No. 597	20. Page 1 of 2
2. Unit(s) 1 & 2	3. Drawing/Part No. E 6046-2-1	Rev. N/A	4. Item Description Radiographs (Vendor Supplied for valve E 6046-2-1)	5. Item Location QA Vault (Film)	
6. P.O. Or Spec. No. 7220-M-120	7. Serial No. E 6046-2-1	8. Replacement Part P/N NA REV NA	9. Source Vendor	10. Contractor/Supplier Anchor Darling Valve Co.	
11. Inspection Criteria ☐ DWG ☐ SPEC ☒ OTHER NO. NA		12. ASME AUTHORIZED INSPECTION REQ'D ☒ YES ☐ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☒ REC'G ☐ CONST ☐ TEST	
15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ FLD		16. Nonconforming Condition: The referenced 10" HBB-GT-2MO-1760-RVE valve radiographs were received in a manila type envelope which was badly torn. The radiographs were ripped, bent, had holes worn through by rubbing, and exposed to the elements. Five of the film are damaged in the area of viewing interest making their acceptability indeterminate. Vendor states that duplicate radiographs are not available. "Q" Number 4.176 1 hold tag applied to the valve in warehouse - QC Hold Area Hold for Engineering disposition			
17. Reported By Ray W. Heron		Date 11-11-76		18. Validated By R. P. Torres	
19. Routing ☒ TO FIELD ENGINEERING		☐ TO OTHERS (SPECIFY)		20. Disposition Concurrence REWORK REJECT REPAIR USE AS IS X	
21. Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING		22. Disposition Results Use-as-is disposition does not require further action. R. P. Torres 11/6/77			
23. Project Engineering Disposition Field Engineering recommends "Use As Is". (1) The radiographic film package for valve E6046-2-1 contains acceptable repair radiographs that cover the same areas as the four radiographs that have holes, tears, etc. ASME Section III, Div. 1, 1974 Edition does not require that "in-process" radiographs be retained provided that there is an acceptable radiograph that represents the final condition of the material. Film identification					
24. QC Acceptance The field engineering recommendation is acceptable as written. ASME III NA 4932(h) requires that final radiographs shall be included as permanent records. It does not require that "in-process" radiographs be retained provided there is an acceptable final radiograph. The BQAM-ASME III, div. paragraph 7220(8) states that "final radiographs shall be maintained as a permanent record."					
25. QC Acceptance R. P. Torres 12/21/76 The Field					
26. QC Acceptance R. P. Torres 12/21/76 The Field					

BLOCK 22 continued: is as follows:

a. <u>Damaged Radiograph (2 film)</u>	N1610F	F3904	4-1	10-22-75
<u>Repair Radiograph (2 film)</u>	N1610(Q)U	F3904	4-1	2-6-76
b. <u>Damaged Radiograph(2 film)</u>	N1610U	F3904	1-2	10-22-75
<u>Repair Radiograph (2 film)</u>	N1610(Q)U	F3904	1-2	2-6-76

(2) The radiograph film that has a fold through the area of interest, identification number F8051, P546(Q), 37-38 (Heavy Section), dated 4-27-76, is interpretative and acceptable. In addition, there are two other radiographs of the same area which show that there are not any unacceptable defects in the casting.

(3) Procurement notified Anchor/Darling Valve Company, Williamsport, PA that radiographs are required to be protected during shipment to avoid damage (i.e. holes, tears, folds, scratches, etc.). This action was taken to prevent recurrence.

J. B. Barber 11-18-76
D. Williams 11-18-76

BECHT

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 601	20. Page 1 of 3
2. Unit(s) Unit #2	3. Drawing/Part No. 20H2786D10	Rev 0	4. Item Description 1" x 1 1/4" Hi. Str. Coupl. Bolt	5. Item Location Polar Crane Unit #2	
6. P.O. Or Spec No. M-92	7. Serial No. N/A	8. Replacement Part P/N N/A REV	SER NO.	9. Source Supplier	10. Contractor/Supplier Harnischfeger P & H
11. Inspection Criteria Vendor ☒ DWG ☐ SPEC ☐ OTHER NO. 31A5869 & 70		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC. ☒ CONST ☐ TEST ☐ CLIENT ☒ ENG ☐ FLD	15. Equip Furnished By
16. Nonconforming Condition: Three bolts, P/N-20H2786D10, used in mating the End-Truck Drivers and Idlers, failed while being torqued to manufacturer's specs... Failure of bolts occurred at the outboard aft. side of Corner #4 and the inboard center, center of Corner #1. This type bolt P/N-20H2786D10, is used to mate both Drivers and Idlers to the G-1 and G-2 Girders. These bolts appear to be under-cut at the thread shank transition. (See attached twx 26 (I) M-92)			24. Disposition Concurrence REWORK ☐ REJECT ☒ REPAIR ☐ USE AS IS ☐ PROJECT FIELD ENGINEER <i>W. Valenzuela</i> DATE 11/19/76 PROJECT ENGINEER <i>W. Valenzuela</i> DATE 11-26-76 PROJECT CONSTR QC ENGINEER <i>W. Valenzuela</i> DATE AUTHORIZED INSPECTOR <i>W. Valenzuela</i> DATE		
17. Reported By <i>R. J. Hearn</i> Date 11/11/76			18. Validated By <i>W. Valenzuela</i> Date 11-12-76		
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)			25. Disposition Results Per attached Harnischfeger Warehouse delivery notice. The defective bolts will be packaged and shipped back to Harnischfeger Co. Per claim tag #17868, Package and shipped to: Harnischfeger Co. Attn: Jim Swenor 6785 West Green Field Ave. West Allis, Wis. 53214 Claim Tag 17868 Contact Ray Mais Ext. 378 Before Packaging the defective bolts.		
22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING The bolts which failed were broken and have been rejected and scrapped. Field tests established that bolt failure was due to incorrect torque value specified by the Vendor. P & H has revised torque requirements and furnished additional bolts. (See attached twx 26 (I) M-92)			26. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
23. Project Engineering Disposition			27. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			28. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			29. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			30. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			31. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			32. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			33. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			34. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			35. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			36. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			37. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			38. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			39. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			40. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			41. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
			42. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		
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			100. QC Acceptance <i>W. Valenzuela</i> DATE 11/13/76 <i>W. Valenzuela</i> DATE 11/4/77		

BECHTEL MIDL

WI INFOMASTER 1-020311A324 11/10/76
FLX HARNCO 1 BKFD
SI PD BKFD WIS
TUX 3102669497 BECHTEL MIDL
MIDLAND MICHIGAN

26(I) M-92

RE: POLAR CRANE P&H C-25039 YA PO 7220-1-72
DUGS, 22A5255 END TIE, 31A5362, 31A5370 END TRUCKS, AND 20F2333
SEISMIC RESTRAINTS, ALL SPECIFY MINIMUM BOLT TENSION FOR SPECIFIC
BOLT TYPE AND DIAMETER. EXAMPLE - 1" DIA. A-325 HI-STRENGTH BOLT
TIGHTENED TO OBTAIN MINIMUM BOLT TENSION OF 51,000 LBS.
THE APPROX. TORQUE WRENCH VALUE LISTED ON DUGS IS A RECOMMENDED
VALUE ONLY. A MORE ACCURATE TORQUE VALUE, OBTAINED FROM RANDOLPH
TENSION TESTS, IS ACCEPTABLE TO HARNISCHFEGER AS MINIMUM SPECIFIED
TENSION VALUES WILL BE INSURED.
GEORGE THORSEI - SERVICE
HARNISCHFEGER CORP 11-10-76 1200
CC MR D GOLDSSEL - DET
CC PODOLAK
CC ANDERSON
END

1434 EST

BECHTEL MIDL

JOB 7220	
ROUTING	ACTN
Proj. Supt.	
F. Sup.	
P.F. Engr.	
APP. Eng. 1	
APP. Eng. 2	
Contr. Sch.	
Cont. Bldg.	
Aux. Bldg.	
Yard-Turb.	
Civ. Sup.	
Civ. Eng.	
Mech. Sup.	
Mech. Eng.	
Elec. Sup.	
Elec. Eng.	
Weld. Eng.	
Off. Eng.	
F & A	
Q C	
Purch.	
Sub-Con	



LEVERING *for* 1122-76
2:45 PM

NCR 601

Page 2 of 2

3
11-19-76

PRESS HARD WHEN WRITING

MACHINE

CUST. ORDER NO.
7220-M-92 Rev 3

FOR BILLING PURPOSES ONLY

P&H ORDER NUMBER
404022

5. P+H - Milw - Wis.

☐ COMPLETE☐ NO CHARGE

CASH IN
ADVANCE

F.O.B.	
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☐ AIR EXPRESS☐ RAIL EXPRESS☐ OTHER

Are Engt - Only - Prescribed

DEALER

DISCOUNT	
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FILE COPY — PARTS DIV.

SECRET

HOME OFFICE COPY

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 605	20. Page 1 of 24
2. Unit(s) Common	3. Drawing/Part No. 7220-C-219	Rev 8	4. Item Description Additional Rebar in header above door opening	5. Item Location Aux. Bldg. El. 584 @ 'G' & 6.6	
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 ☒ DWG ☐ SPEC ☐ OTHER NO.		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO		13. SKETCH ATTACHED ☒ YES ☐ NO	
14. Discovered During ☐ REC:G ☒ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ FLD			
16. Nonconforming Condition: Sections F & G of Dwg. 7220-C-219, Rev. 8 shows an additional 4-#8 horizontal bars and 6-#5 cap bars @ 12" below an additional horizontal construction joint for the door header @ G/6.6. This area was built as shown on Dwg. 7220-C-219, Rev. 7 which does not include the additional items. Q-List No. 1.203. Hold for Engineering Disposition. 1 Hold Tag Applied.				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS ☐ ☐ ☐ ☒	
17. Reported By Larry P. Wilson 11-16-76		18. Validated By J. J. Connolly 11-16-76		25. Disposition Results	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)					
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
Field Recommends disposition as called out by FCR-C-378 (Attached).					
James McDonald 11-17-76					
Frankie Jones 11/17/76					
23. Project Engineering Disposition The corrected copy dated 11-29-76 is attached. The missing bars were to be used in conjunction with a planned intermediate construction joint; because this intermediate construction joint was not used, the unplaced bars also were not required. Therefore, Project Engineering has found the "as built" condition to be structurally adequate with no safety implications involved, and recommends to "use as is". E. F. Will, 1-15-77 J. J. Connolly 1-17-77					
note: revised response to this NCR was prepared by Project Engineering J. J. Connolly 1/17/77					
26. QC Acceptance J. J. Connolly 1/24/77		DATE			
AUTHORIZED INSPECTOR		DATE			



FIELD CHANGE REQUEST

PAGE 1 OF 1

No. C-378

PROJECT NO. 7220

Q No. 1.203

3. DATE 4 22 76 MO DAY-YR

4. REF. DWG. OR SPEC. 7220-C-219 REV. 8 5. TITLE Addt'l rebar in header above door opening at G/6.6

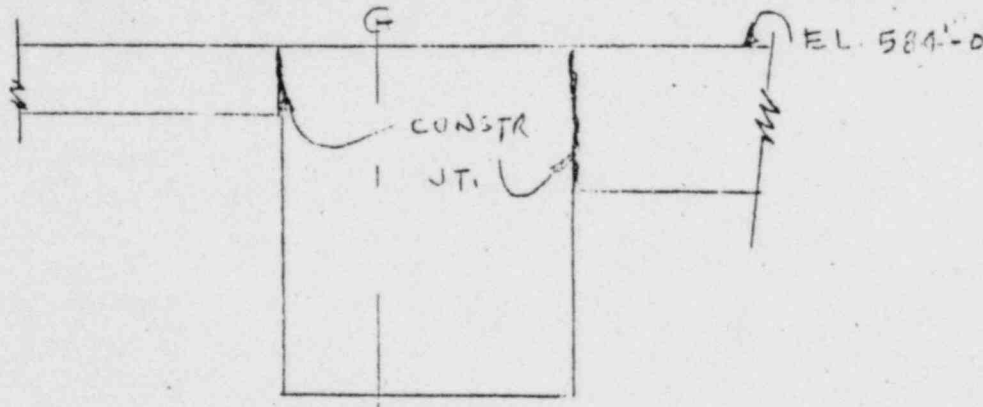
6. DESIGN ORIGIN: ENGRG ☒ VENDOR ☐ (IDENTIFY) NAME

7. EXISTING CONDITION: Sections F & G of the referenced drawing show an additional 4-#8 horizontal bars and 6-#5 cap bars @ 12" below an additional horizontal construction joint for the door header at G/6.6.

8. CHANGE REQUEST / SKETCH

Revise sections F and G of the referenced drawing to:

- Delete the additional 4-#8 horiz. bars and 6-#5 cap bars.
- Show the following as-built construction joint arrangement:



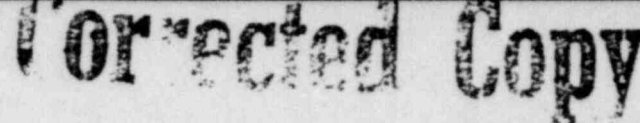
The above requests are made to reflect the as-built condition of the door header at G/6.6. The as-built condition conforms to the original project engineering design to pour the door header to elev. 584' without an intermediate horizontal construction joint.

10. REVIEWED BY: CIVIL [Signature] Date 4-22-76
ELECT. [Signature] 4-26-76
MECH. [Signature] 4-22-76
WELDING [Signature] 4-22-76

9. PREPARED BY: [Signature]
11. APPROVAL OF FIELD DISPOSITION: [Signature] 4-26-76
Project Field Engineer Date

12. PROJECT ENG'R/G APPROVAL: YES ☐ NO ☐ PROJ. ENGR.: _____ Date: _____

REMARKS: _____



11-25 71

1. Project Name Midland		Job No. 7220		19. No. 605		20. 13 of 24	
2. Unit(s) Common		3. Drawing/Part No. 7220-C-219		Rev 8		4. Item Description Additional Rebar in header above door opening	
5. Item Location El. 584 @ 'G' & 6.6		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 ☒ DWG ☐ SPEC ☐ OTHER NO.		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	
13. SKETCH ATTACHED ☒ YES ☐ NO		14. Discovered During ☐ REC'D ☒ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ FLD		16. Nonconforming Condition: Sections F & G of Dwg. 7220-C-219, Rev.-8 shows an additional 4-#8 horizontal bars and 6-#5 cap bars @ 12" below an additional horizontal construction joint for the door header @ G/6.6. This area was built as shown on Dwg. 7220-C-219, Rev. 7 which does not include the additional items. Q-List No. 1.203. Hold for Engineering Disposition. 1 Hold Tag Applied. Additional Information: 7220-C-219, Rev. 7, DCN #1 received on site 6-26-74. Concrete Placement made 7-17-74.	
17. Reported By Larry P. Weber 11-16-76		18. Validated By J. J. Connolly 11-16-76		24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS		25. Disposition Results	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)		22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING		26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR DATE			
23. Project Engineering Disposition		Field Recommends disposition as called out by FCR-C-378 (Attached). James Diamond 11-17-76 Paula Joyce 11/17/76					



FIELD CHANGE REQUEST

PAGE 1 OF 1

No. C-378

PROJECT NO. 7220

Q No. 1.203

3. MO DAY YR
DATE 4 23 76

4. REF. DWG. OR SPEC.

7220-C-219

REV.

8

5. TITLE Addt'l rebar in header above door opening
at G/6.6

DESIGN ORIGIN:

ENGRG ☒VENDOR ☐ (IDENTIFY)

NAME

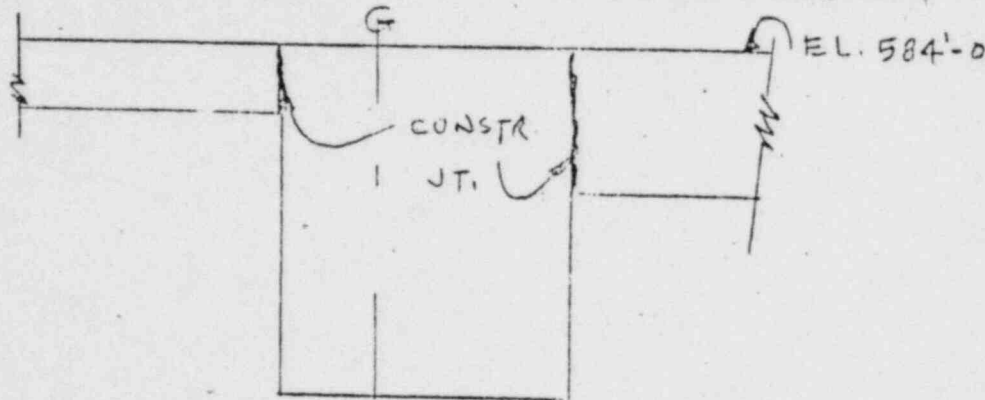
7. EXISTING CONDITION:

Sections F & G of the referenced drawing show an additional 4-#8 horizontal bars and 6-#5 cap bars @ 12" below an additional horizontal construction joint for the door header at G/6.6.

8. CHANGE REQUEST / SKETCH

Revise sections F and G of the referenced drawing to:

- Delete the additional 4-#8 horiz. bars and 6-#5 cap bars.
- Show the following as-built construction joint arrangement:



The above requests are made to reflect the as-built condition of the door header at G/6.6. The as-built condition conforms to the original project engineering design to pour the door header to elev. 584' without an intermediate horizontal construction joint.

Corrected Copy

10. REVIEWED BY:

CIVIL

ELECT.

MECH.

WELDING

Date

4-22-76

4-26-76

4-22-76

4-22-76

9.

PREPARED BY:

11. APPROVAL OF FIELD DISPOSITION:

Project Field Engineer

Date

12. PROJECT ENGR'G APPROVAL: YES ☐ NO ☐ PROJ. ENGR.:

Date:

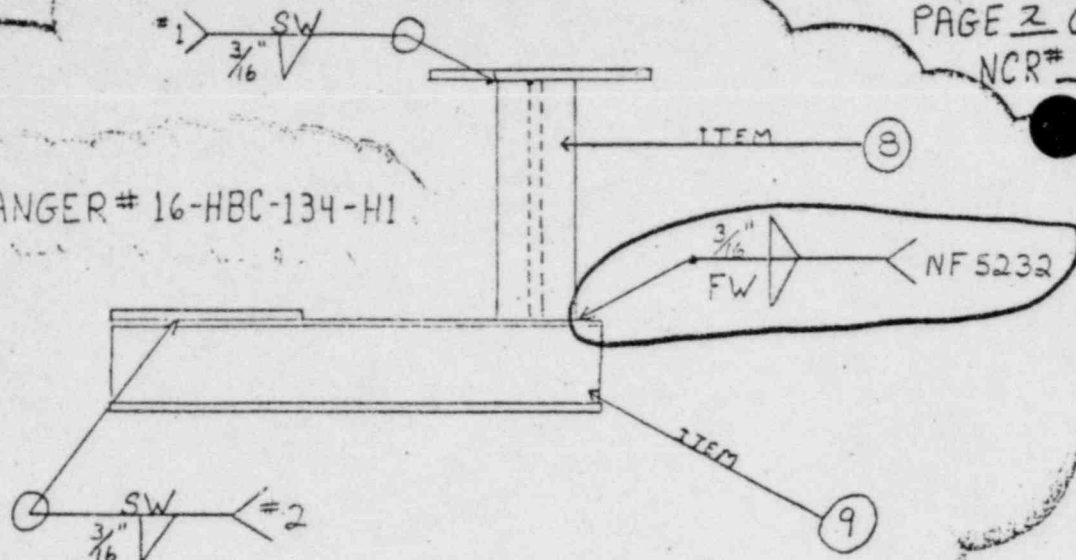
REMARKS:

BEC

NONCONFORMANCE REPORT

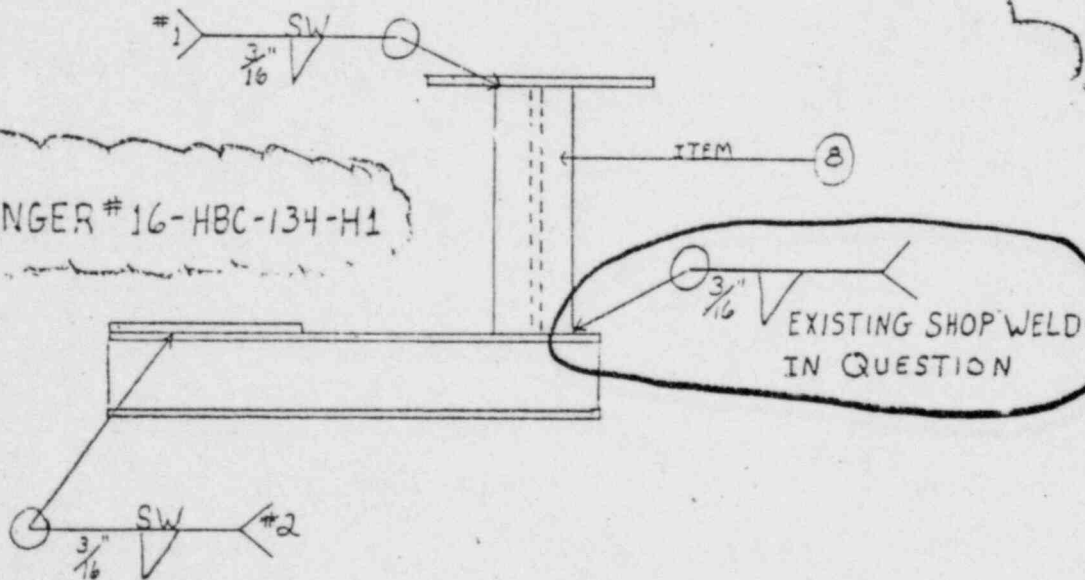
1. Project Name Midland		Job No. 7220		19. No. 607	20. Page 1 of 2
2. Unit(s) 2	3. Drawing/Part No. Grinnell 2-617-6-1	Rev 2	4. Item Description ASME Pipe Hanger #16-2HBC-134-H1	5. Item Location Aux. 608' E of 7.4 of B Line	
6. P.O. Or Spec No. #7220-M-106-AC	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A	9. Source Supplier	10. Contractor/Supplier ITT Grinnell	
11. Inspection Criteria ☒ DWG ☐ SPEC ☐ OTHER NO. 2-617-6-1		IR NO. M326-199W	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☒ YES ☐ NO	14. Discovered During ☐ REC'G ☒ CONST ☐ TEST ☐ CLIENT ☒ ENG ☐ FLD
16. Nonconforming Condition: Grinnell Hanger Sketch (Drawing) 2-617-6-1 Rev. 2 for the referenced Hanger, requires the 3/16" Fillet Weld joining item 8 to item 9 to be a Field Weld across the flange of item 8 only. Contrary to the above design, a 3/16" Shop Fillet Weld has been made completely around the flanges and web of the item 8 to item 9 joint. "Q" Number 4.172 1 Hold Tag Applied Hold for disposition			24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS A. J. Boon 1-24-76 PROJECT FIELD ENGINEER DATE A. J. Boon 1-24-76 PROJECT ENGINEER DATE A. J. Boon 1-24-76 PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		
17. Reported By Timothy Anderson 11-19-76		18. Validated By A. J. Boon 11/19/76		25. Disposition Res Its Based on approved drawing QAR SD-14 no further disposition is required. attached 1/24/77	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)		22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING THE ABOVE DESCRIBED 3/16" FILLET DOES NOT REPRESENT A NONCONFORMING CONDITION. REF: PROJECT ENGINEERS REPLY TO QUALITY AUDIT REPORT SD-14. A. J. Boon 1-24-77 A. P. 1-24-77			
23. Project Engineering Disposition		26. QC Acceptance A. J. Boon 1/24/77 QC ENGINEER DATE AUTHORIZED INSPECTOR DATE			

ASME HANGER #16-HBC-134-H1



DETAIL: AS PER SECTION AA
ITT GRINNELL DWG. #2-617-6-1 Rev. 2
DESIGN AS SHOWN

ASME HANGER #16-HBC-134-H1



AS BUILT

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 609	20. Page 1 of 1								
2. Unit(s) Common	3. Drawing/Part No. C-279 (Q)	Rev 5	4. Item Description Reinforcing Steel	5. Item Location El. 634'-6" Aux. Bldg. A Line @ 6.9									
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Replacement Part P/N N/A REV	SER NO. Construction	10. Contractor/Supplier N/A									
11. Inspection Criteria ☒ LOWG ☐ SPEC ☐ OTHER NO. N/A		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO		13. SKETCH ATTACHED ☐ YES ☒ NO									
14. Discovered During		15. Equip Furnished By ☐ REC-G ☒ CONST ☐ TEST ☐ CLIENT ☐ ENG ☐ FLD											
16. Nonconforming Condition: Drawing C-279 (Q) Rev. 5, Section D, calls for 6 #11 Additional Vertical Bars, Each Face, Located at "A" & 6.9 Lines Between El. 609'-6" & 634'-6". Contrary to the above, 5 #11, Additional Vertical Bars, Each Face, were installed. Hold for Engineering Disposition. "Q" Number 1.203. 1 Hold tag applied.				24. Disposition Concurrence <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></td> <td>☒</td> </tr> </table>		REWORK	REJECT	REPAIR	USE AS IS				☒
REWORK	REJECT	REPAIR	USE AS IS										
			☒										
Reported By <i>[Signature]</i>		Date 11-24-76		18. Validated By <i>[Signature]</i>									
Date 11-24-76		Date 11-24-76		25. Disposition Results									
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)													
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Accept as is. Project Engineering to evaluate. <i>[Signature]</i> 11-24-76 <i>[Signature]</i> 11/29/76													
23. Project Engineering Disposition Engineering has evaluated the "as built condition" and has found the wall to be structurally adequate. No safety implications are involved, therefore "use as is". Calculations substantiating "use as is" are contained in the Engineering files. <i>[Signature]</i> 11/29/76													
26. QC Acceptance <i>[Signature]</i>				QC ENGINEER 11/6/77									
AUTHORIZED INSPECTOR				DATE									

NONCONFORMANCE REPORT

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 ☐ DWG ☒ SPEC ☐ OTHER NO. C-208, Rev. 8		IR NO. SC/1.05-5		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC ☒ CONST ☐ TEST	15. Equip Furnished By ☐ CLIENT ☐ ENG ☒ 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 USE AS IS			
17. Reported By <i>R. H. Haisley</i> Date 12/1/76				18. Validated By <i>R. H. Haisley</i> Date 12-2-76		25. Disposition Results	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)							
22. ☐ Field Engineering Disposition ☒ 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.							
23. Project Engineering Disposition A slightly lower cylinder cure temperature during the first 24 hours may tend to result in a lower early strength and a higher long term strength. An initial cure temperature which ranged from 56°F to 74°F in lieu of the required range of 60°F to 80°F will have an insignificant effect upon concrete cylinder strength results. Project Engineering therefore concurs with the Field Engineering recommended disposition to "use as is". 28 day strength averages for the subject cylinder sets							
				26. QC Acceptance <i>R. H. Haisley</i> 1/13/77 QC ENGINEER DATE			
				AUTHORIZED INSPECTOR DATE			

(Contd.)

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 is 6.101. No hold tags applied.

Block # 23 Project Engineering Disposition: (Contd.)

are as follows:

Set No.	28 day strength	Required 90 day strength
1156	6245 psi	5000 psi
1165	5860 psi	5000 psi
1167	5960 psi	5000 psi
1168	5795 psi	5000 psi

And 11/5/77

Revised 1-5-77
J.R. Freeman 1-5-77



ATTN. RICH MARL
TELECOPY PL.

J. F. WENGEN
F. TEAGUE

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 614	20. Page 1 of 52
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 Pour 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 ☐ DWG ☒ SPEC ☐ OTHER NO.		IR NO. C-1.30-87	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC:G ☐ CONST ☒ TEST
15. Equip Furnished By ☐ CLIENT ☐ ENG ☒ 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. ITEM #2 - Paragraph 9.1.5, C-230, Rev. 8, requires concrete air content, as (CONTINUED ON PAGE 2)			24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS 1-27-77 1-24-77 1-28-77 AUTHORIZED INSPECTOR DATE		
17. Reported By R. Valentine		Date 12/2/76	18. Validated By H. Plannolly		Date 12-2-76
21. Routing ☒ TO FIELD ENGINEERING		☐ TO OTHERS (SPECIFY)			
22. ☐ Field Engineering Disposition		☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Response required by 1/20/77; Item #1 Use as is. Item #2 Use as is, based on cylinder strengths of set #1216 with 28 day strengths of 5450psi and 5460 psi. Based on past cylinder tests, this concrete will exceed 6000 psi at 90 days. continued on page 2			
23. Project Engineering Disposition Item # 1 : The higher placement temperature may tend to increase shrinkage, setting rate and water demand while reducing durability and strength. However, a placing temperature of 70°F in lieu of the 65°F maximum allowable for one test in a 504 cubic yard pour will have an insignificant effect upon the concrete properties. Item # 2: A higher air content would tend to reduce concrete strength while increasing the durability of the concrete. Required 90 day strength for this E-1 mix is 6000 psi. (Contd. on pg. 2)		25. Disposition Results			
		26. ☒ Acceptance H. Plannolly OF ENGINEER 1-28-77 DATE			
		AUTHORIZED INSPECTOR DATE			

BECHTEL

BLOCK #16 CONTINUED:

NONCONFORMING REPORT (CONT'D)

1 PAGE 2 OF 52

14. NCR 14

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 Hold tag applied. Q-List No. 1.105.

Block 22 continued.

Item 3 Use as is, based on cylinder strengths of cylinder set SP275: 7 day strengths 3240 psi & 3080 psi; 28 day strengths 5410 & 5500 psi. Based on past results, 90 day strength will exceed 6000 psi required. Concrete compressive test reports 1216 and SP-275, attached Concrete class E-1 C.Y. placed: 504 c.y.; 8 c.y. grout.

Block # 23. Project Engineering Disposition (Contd.):

28 day strengths averaged 5455 psi for set #1216 cast on ticket # 11856 at the batch plant. 90 day strength is estimated to exceed 6000 psi.

Item # 3: A higher slump may tend to increase shrinkage while reducing durability and strength. However, 8 cubic yards of 7 inch slump concrete in a 504 cubic yard pour will have an insignificant effect upon concrete properties. 28 day compressive strengths for batch ticket # 11863 averaged 5455 psi with 90 day strengths estimated to exceed 6000 psi.

Average strength of all cylinders cast at the batch plant for placement cc(693.42)a' is 5780 psi at 28 days, while Field cast cylinders average 6410 psi at 28 days. Required 90 day strength is 6000 psi.

All three non conforming items when combined together will still have an insignificant effect on the overall quality of the concrete in placement CC(693.42)a'. Project Engineering therefore concurs with the Field Engineering recommended disposition to "use as is".

ALD 1/24/77

EW Mail 1-24-77

HA Quinn 1-24-77

10098-2

QC-G3-3

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



BECHTEL POWER CORPORATION
MIDLAND NUCLEAR POWER PLANT JOB 07220
REPORT OF CONCRETE CYLINDERS

PLACEMENT IDENTIFICATION

CC(693.42)a'

QC ACCEPTANCE

DATE

CONTROL NUMBER

FILE NUMBER

DATE PLACED

11/24/76

PLACEMENT LOCATION

Ext. Wall Lift 10

PLANT DATA

SOURCE

Champion Incorporated

CEMENT BRAND AND TYPE

Martin Marietta Type II

MIX

E-1

CLASS

I

Q' LIST

☒ YES☐ NO

REQUIRED STRENGTH

6000

PSI

AT

90

DAYS

TEST DATA AT BATCH PLANT

TICKET NO. 11856	TRUCK NO. 56	TIME OF MOLDING 1342	HOURS AT 328	YARDS	INITIALS RS
SLUMP 5	AIR CONTENT 7.1	UNIT WEIGHT 143.13	LBS/FT ³	TEMP. CONCRETE 54	TEMP. AIR 28
MOISTURES: SAND 1.7	STONE 1 -0.5	STONE 2 -0.5	WATER/CEMENT + POZZOLAN RATIO .37 MAX. .37 ACT.		
INITIAL CURING 67	STRIPPED 11/25/76	AT 1300	HRS	INITIALS DSH	

TEST DATA AT PLACEMENT

Truck Discharge

TICKET NO. 11856	TRUCK NO. 56	TIME OF TESTING 1350	HOURS AT 328	YARDS	TIME OF MOLDING N/A
SLUMP 4	AIR CONTENT 6.5	TEMP. CONCRETE 55	TEMP. AIR 31	INITIALS DSH	
INITIAL CURING N/A	STRIPPED N/A	AT N/A	HRS	INITIALS N/A	

COMPRESSIVE STRENGTH DATA

ASTM - C - 39 - 71

SPECIMEN IDENTIFICATION	DATE MOLDED	DATE TESTED	AGE	TOTAL LOAD IN POUNDS	ACTUAL CYL DIAM.	ACTUAL CYL AREA	TYPE OF BREAK	CURE		STRENGTH PSI	
								FIELD	LAB		
9185	1216	11/24/76	11/26/76	2	60,500	6.04	28.65	A	1	1	2110
86			"	2	55,000	6.03	28.56	A	1	1	1930
87			11/29/75	5	86,500	6.04	28.65	A	1	4	3020
88			"	5	84,000	6.04	28.65	A	1	4	2930
89			12/1/76	7	100,000	6.03	28.56	A	1	6	3500
90			"	7	103,000	6.05	28.75	A	1	6	3580
91	/	/	12/22/75	28	154,500	6.01	28.37	B	1	27	5450
9192	1216	11/24/76	"	28	156,500	6.04	28.65	B	1	27	5460

STANDARD CYLINDER

☒ 6" X 12" ☐ CUBE ☐ CORE ☐ OTHER

REMARKS

AGE (DAYS)	TESTED BY	CHECKED BY	CHECKED BY QC REP
2	RL	<i>[Signature]</i>	
5	RL	<i>[Signature]</i>	
7	DW	<i>[Signature]</i>	
28	DW	<i>[Signature]</i>	

LABORATORY SUPERVISOR

DATE

12.24.76

* TYPE OF BREAKS

A - CONE, MORTAR FAILURE B - CONE, AGGREGATE FAILURE

C - SHEAR, MORTAR FAILURE

D - SHEAR AGGREGATE FAILURE E - OTHER



MC ACCEPTANCE	DATE
CONTROL NUMBER	FILE NUMBER
DATE PLACED	

11/24/76

PLACEMENT LOCATION

CC(693.42)a!

11/24/26

Ext. Wall Lift 10

PLANT DATA		SOURCE Champion Incorporated		CEMENT BRAND AND TYPE Martin Marietta Type II	
MIX E-1		CLASS I	TYPICAL LIST X YES ☐ NO		REQUIRED STRENGTH 6000 PSI AT 90 DAYS

TEST DATA AT HATCH PLANT

TICKET NO 11856	TRUCK NO. 56	TIME OF MOLDING 1342 HOURS AT 328 YARDS		INITIALS RS
SLUMP 5 INCHES	AIR CONTENT 7.1 %	UNIT WEIGHT 143.13 LBS/FT ³	TEMP. CONCRETE 51 °F	TEMP. AIR 28 °F
MOISTURE: SAND 1.7 %	STONE 1 -0.5 %	STONE 2 -0.5 %	WATER/CEMENT + POZZOLAN RATIO .37 MAX. 37 AC	
INITIAL CURING 67 °F TO 78 °F		STOPPED 11/25/76 AT 1300 HRS. INITIALS DSH		

TEST DATA AT PLACEMENT

Truck Discharge

TICKET NO. 11856	TRUCK NO. 56	TIME OF TESTING 1350 HOURS AT 328 YARDS		TIME OF MOLDING N/A
BLUMP 4 INCHES	AIR CONTENT 6.5 %	TEMP. CONCRETE 55 °F	TEMP. AIR 31 °F	INITIALS DSH
INITIAL CURING N/A °F TO N/A °F		STRIPPED N/A AT N/A HRS.		INITIALS A

COMPRESSIVE STRENGTH DATA

ASTM - C-39 - 71

[illegible]

STANDARD CYLINDER

☒ 6" X 12" ☐ CUBE ☐ CORE ☐ OTHER

REFERENCES

AGE (DAYS)	TESTED BY	CHECKED BY	CHECKED BY GC REP	
LABORATORY SUPERVISOR				DATE

* TYPE OF BREAKS

A = CONE, MORTAR FAILURE B = CONE, AGGREGATE FAILURE
D = SHEAR, AGGREGATE FAILURE F = OTHER

C. J. SHEAH, MONTAR FAILURE



BECHTEL POWER CORPORATION
MIDLAND NUCLEAR POWER PLANT JOB 07220
REPORT OF CONCRETE CYLINDERS

QC ACCEPTANCE

DATE

CONTROL NUMBER

FILE NUMBER

DATE PLACED

11/24/76

CC(003.42)a'

PLACEMENT LOCATION

Ext. Wall Lift 10

ENGINEERING COMMENT

PLANT DATA

SOURCE

Champion Incorporated

MINE HEAD AND TYPE

Martin Marietta Type II

MIX

E-1

CLASS

1

Q LIST

X

11 NO

REQUIRED STRENGTH

6000

PSI

AT

DAYS

TEST DATA AT BATCH PLANT

N/A

TICKET NO

TRUCK NO

TIME OF MOULDING

HOURS AT

YARDS

INITIALS

SLUMP

AIR CONTENT

UNIT WEIGHT

TEMP. CONCRETE

TEMP. AIR

MOISTURE SAND

STONE 1

STONE 2

WATER CEMENT RATIO

INITIAL CURING

STRIPPED

°F TO

°F

AT

HRS

INITIALS

TEST DATA AT PLACEMENT

End of Line

TICKET NO

11863X

TRUCK NO

68

TIME OF TESTING

1425

HOURS AT

280

YARDS

TIME OF HOLDING

1430

HRS

SLUMP

7

AIR CONTENT

6.0

TEMP. CONCRETE

56

TEMP. AIR

32

INITIALS RL

INITIAL CURING

30

STRIPPED

°F TO

50

°F

11/25/76

AT

1220

HRS

INITIALS DSH

COMPRESSIVE STRENGTH DATA

ASTM - C - 39 - 71

SPECIMEN IDENTIFICATION	DATE MOULDED	DATE TESTED	AGE	TOTAL LOAD IN POUNDS	ACTUAL CYL DIAM	ACTUAL CYL AREA	TEMP. OF CURE	CURE		STRENGTH PSI
								FIELD	LAB	
1930 SP275	11/24/76	12/1/76	7	92,000	6.01	28.37	A	1	6	3240
31		"	7	87,000	6.00	28.27	A	1	6	3080
32		12/22/76	28	154,000	6.02	28.46	B	1	27	5410
33		"	28	156,000	6.01	28.37	B	1	27	5500
34		2/22/77	90							
1935 SP275	11/24/76	"	90							

STANDARD CYLINDER

N 6" X 12"

[] CUBE

[] CONE

[] OTHER

REMARKS

*Corrected Copy: Field data corrected.

AGE (DAYS)

TESTED BY

CHECKED BY

CHECKED BY (QC REP)

LABORATORY SUPERVISOR

DATE

* TYPE OF BREAKS

A - CONE, MORTAR FAILURE

B - CONE, AGGREGATE FAILURE

C - SHEAR, MORTAR FAILURE

D - SHEAR, AGGREGATE FAILURE

E - OTHER

10362

QC-C3A. USTD-54 @ 7

UST D-314 @ 28



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/Rev. No. 7220-E-20-2	Rev 7	4. Item Description 8 Weld Neck Flanges	5. Item Location Wh. 2 #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	9. Source Supplier	10. Contractor/Supplier Amphenol Sams, Chatsworth, CA.	
11. Inspection Criteria ☐ DWG ☒ SPEC ☐ OTHER NO. E-20 Rev 3		IR NO. R-1.00-411	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☒ REC'G ☐ CONST ☐ TEST ☐ CLIENT ☒ ENG ☐ FLD
15. Nonconforming Condition: Spec 7220-E-20, Rev 3, 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 DATE 12/10/76 PROJECT FIELD ENGINEER PROJECT ENGINEER DATE 12-14-76 PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		
17. Reported By H. B. Bolen 12-1-76		18. Validated By H. B. Bolen 12-1-76		25. Disposition Results Documentation received NA 1-10-77	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)		22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Route to Material Supervisor who will obtain required documentation.			
23. Project Engineering Disposition		26. QC Acceptance H. B. Bolen 1-10-77 QC ENGINEER DATE AUTHORIZED INSPECTOR DATE			



Corrected Copy

To A 3 16

NONCONFORMANCE REPORT

1. Project Name Midland Nuclear Project		Job No. 7220		19. 6219 620		20. Page 1 of 22			
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 1/4		7. Serial No. N/A		8. Replacement Part P/N N/A REV NO.		9. Source Construction		10. Contractor/Supplier N/A	
11. Inspection Criteria ☐ DWG ☒ SPEC ☐ OTHER		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO		13. SKETCH ATTACHED ☐ YES ☒ NO		14. Discovered During ☐ REC-G ☒ CONST ☐ TEST		15. Equip. Furnished By ☐ CLIENT ☒ ENG ☐ FLD	
16. Nonconforming Condition: Spec. C-231, Rev. 12-73/6 Par. 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, 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 REWORK REJECT REPAIR USE AS IS ☒			
17. Reported By Rodney Bennett 12/7/76						18. Validated By R. Kimbrell 12-7-76			
21. Routing ☒ TO FIELD ENGINEER ☐ TO OTHERS (SPECIFY)						25. Disposition Results			
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING 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.						26. QC Acceptance R. Kimbrell 12/13/76 DATE 1/13/77			
23. Project Engineering Disposition A lower concrete curing temperature will tend to reduce shrinkage, setting rate, and water demand while increasing durability and required curing time. A concrete curing temperature of 40°F in lieu of the minimum 50°F allowable may tend to cause a slight reduction in the early concrete strength. Project Engineering concurs with the Field Engineering recommended disposition to "use as is" because						26. QC Acceptance R. Kimbrell 12/13/76 DATE 1/13/77			
(Contd.)						26. QC Acceptance R. Kimbrell 12/13/76 DATE 1/13/77			

- 1) The minimum concrete surface temperature was 40°F for approximately 22 hours and freezing did not occur.
- 2) The cure for concrete pour A(634.5)b was extended to provide seven (7) days of curing at proper temperatures.
- 3) Average 28 day strength results for the subject pour was 5230 psi for cylinders cast at the batch plant and 5680 psi for cylinders cast in the field. Required 90 day strength is 4000 psi.

ORIGINAL

WORK REPORT

403 lbs.

1. Subject Name H.D. and	2. Description No. H/S	3. Date 7/22/70	4. Test Location N/A	5. Test Results N/A	6. Test Date 7/22/70	7. Test Time 10:00 AM	8. Test Location N/A	9. Test Results N/A	10. Test Date 7/22/70	11. Test Time 10:00 AM	12. Test Location N/A	13. Test Results N/A	14. Test Date 7/22/70	15. Test Time 10:00 AM
1. Subject Name: H.D. and 2. Description No.: H/S 3. Date: 7/22/70 4. Test Location: N/A 5. Test Results: N/A 6. Test Date: 7/22/70 7. Test Time: 10:00 AM 8. Test Location: N/A 9. Test Results: N/A 10. Test Date: 7/22/70 11. Test Time: 10:00 AM 12. Test Location: N/A 13. Test Results: N/A 14. Test Date: 7/22/70 15. Test Time: 10:00 AM														

Handwritten notes:
 1. Subject Name: H.D. and
 2. Description No.: H/S
 3. Date: 7/22/70
 4. Test Location: N/A
 5. Test Results: N/A
 6. Test Date: 7/22/70
 7. Test Time: 10:00 AM
 8. Test Location: N/A
 9. Test Results: N/A
 10. Test Date: 7/22/70
 11. Test Time: 10:00 AM
 12. Test Location: N/A
 13. Test Results: N/A
 14. Test Date: 7/22/70
 15. Test Time: 10:00 AM

Handwritten: D.T.C.

Handwritten: 4/26/71

Handwritten: AUTHORIZED INSPECTOR

A review of the punch plate tests for placement 7 (S50) and 8 (S50) turned up the following information. Section 9.2.1 of Specs. C-230, Rev. 8 requires that all concrete materials be stored in accordance with ASTM C-230-77, which states in part that Portland cement weighing 6000 lb shall be 43% of the design weight. Consistent with this, each of the 12000 tests indicates approximately 8 c.v. of concrete was placed with 6000 lb. content 3.2% in each test. The 12000 tests indicate that the 12000 tests were approximately 1.9-7%.

1. Subject Name: H.D. and

2. Description No.: H/S

3. Date: 7/22/70

4. Test Location: N/A

5. Test Results: N/A

6. Test Date: 7/22/70

7. Test Time: 10:00 AM

8. Test Location: N/A

9. Test Results: N/A

10. Test Date: 7/22/70

11. Test Time: 10:00 AM

12. Test Location: N/A

13. Test Results: N/A

14. Test Date: 7/22/70

15. Test Time: 10:00 AM

Handwritten: 4/26/71

Handwritten: AUTHORIZED INSPECTOR



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 629	20. Page 1 of 1
2. Unit(s) Unit #1	3. Drawing/Part No. 7220-C-326	Rev 3	4. Item Description Containment #1 Exterior Wall Reinforcing Bar	5. Item Location Cont. #1 Exterior Wall	
6. P.O. Or Spec No. N/A	7. Serial No. N/A	8. Placement Part P/N A REV	9. Source Construction	10. Contractor/Supplier N/A	
11. Inspection Criteria ☒ DWG ☐ SPEC ☐ OTHER		IR NO. N/A NO. C-326, Rev. 3	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ RECIG ☒ CONST ☐ TEST
15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ FLD			16. Nonconforming Condition: Dwg. 7220-C-326, Rev. 3 shows 5-#11 @ 8 vertical Rebar located to the left side of the Equipment Hatch extending from El. 632'5" to El. 660'3". Concrete has been installed to El. 642'7" and Contrary to the above one of the five bars is a #10. The 'Q' Number is 1.103. 1 Hold Tags applied. Hold pending Engineering disposition.		
24. Disposition Concurrence			REWORK REJECT REPAIR USE AS IS X		
17. Reported By P. H. [Signature] Date 12/14/76			18. Validated By [Signature] Date 12-15-76		
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)			25. Disposition Results		
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING RESPONSE RETURNED BY 12/22/76 Use as is. Splice a #11 bar to the #10 bar at El. 642'7" with a 7'6" min. splice length. [Signature] 12/17/76 [Signature] 12/17/76			26. QC Acceptance [Signature] QC ENGINEER DATE 1/24/77		
23. Project Engineering Disposition "As is" disposition is acceptable to Project Engineering. Stress increase in rebar due this small reduction of re-inforcing area (about 4%) is within the reserve capacity available at this section. [Signature] 12/22/76 [Signature] 12/22/76			AUTHORIZED INSPECTOR DATE		



TELECOPY TO FIELD

NONCONFORMANCE REPORT

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. E1. 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 ☐ OWG ☒ SPEC ☐ OTHER		IR NO. C-1.40-43 NO. C-231, Rev. 12	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC:G ☒ CONST ☐ TEST ☐ CLIENT ☐ ENG ☐ FLD								
16. Nonconforming Condition: Specification 7220-C-231, Rev. 12, Section 13.2.4 states..... "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.			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>☒</td></tr></table> P. J. Gibson 1-26-77 PROJECT FIELD ENGINEER DATE K. J. Gibson 1-21-77 PROJECT ENGINEER DATE J. D. Gibson 1-28-77 PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE			REWORK	REJECT	REPAIR	USE AS IS				☒
REWORK	REJECT	REPAIR	USE AS IS										
			☒										
17. Reported By Paul Vander Veen		Date 12-14-76	18. Validated By J. D. Gibson		Date 12-15-76								
21. Routing ☒ TO FIELD ENGINEERING		☐ TO OTHERS (SPECIFY)											
22. ☐ Field Engineering Disposition		☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Response initiated by 1/14/77											
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. con't on page 2.													
23. Project Engineering Disposition Exposure of approximately 20 S.F. (6 in. by 20 ft.) of the concrete surface to the outside environment for approximately 72 hours after 44 hours of proper curing will have an insignificant impact upon the quality of the concrete. Since standing water was observed on the exposed concrete surface and since curing was extended to provide 7 days of adequate curing, Project Engineering concurs with the Field Engineering recommended disposition that placement A(634.5)c may be "used as is."													
26. QC Acceptance J. D. Gibson		1-28-77 DATE AUTHORIZED INSPECTOR DATE											

ALD 1/20/77

E. J. Gibson 1-20-77 J. D. Gibson 1-26-77

BECHTEL

NONCONFORMANCE REPORT (CONT'D)

PAGE 2 OF 2

14. INC. 630

Block 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.

W. E. Smith 1/4/77
W. E. Smith 1-4-77

10098-2

QC-33

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



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. 631 No.		20. 1 of 1 Page	
2. Unit(s) Common		3. Drawing/Part No. F-7220-C233A-F14441-102-3		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		9. Source Supplier	
10. Contractor/Supplier Inland Ryerson Co.		11. Inspection Criteria ☐ OWG ☒ SPEC ☐ OTHER NO. C-233A Rev 9		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO		13. SKETCH ATTACHED ☐ YES ☒ NO	
14. Discovered During ☒ REC:G ☐ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ 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 DOE PROJECT FIELD ENGINEER DATE 12/22/76 PROJECT ENGINEER DATE 12-28-76 PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE	
17. Reported By John R. Siffert 12-15-76		18. Validated By J. M. Siffert 12-15-76		25. Disposition Results Quality verification documentation was received and hold tags removed. John R. Siffert 1-10-77			
21. Routing ☐ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)		22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING The vendor is to supply the missing documentation. Grant 12/22/76 John R. Siffert 12/22/76		23. Project Engineering Disposition			
26. QC Acceptance John R. Siffert 1-20-77 QC ENGINEER DATE		AUTHORIZED INSPECTOR DA					



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. 632 No.		20. 1 of 1 Page	
2. Unit(s) Common		3. Drawing/Part No. F-7220- C233A-F14061-IR-94-4		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 IR NO. R-1.00-438 C-233A Rev 9		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO		13. SKETCH ATTACHED ☐ YES ☒ NO	
14. Discovered During ☒ REC:G ☐ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ 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 PROJECT FIELD ENGINEER DATE 12/22/76 PROJECT ENGINEER DATE 12-28-76 PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE	
17. Reported By John R. Siffert 12-15-76		18. Validated By John R. Siffert 12-15-76		25. Disposition Results Quality verification documentation received and hold tags removed. John R. Siffert 1-20-77		26. QC Acceptance John R. Siffert 1-20-77 QC ENGINEER DATE AUTHORIZED INSPECTOR DATE	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)		22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING The vendor is to supply the missing documentation. Grant 12/22/76 John R. Siffert 12/22/76					
23. Project Engineering Disposition							



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		4. Item Description Embeds		5. Item Location CMB30 SMC Poseyville Laydown Area	
6. P.O. Order No. 7220-F-13637 Rev Q		7. Serial No. See Block 16		8. Replacement Part P/N N/A REV 2		9. Source Vendor	
10. Contractor/Supplier Mississippi Valley Structural Steel		11. Inspection Criteria OWG ☒ SPEC ☐ OTHER ☐		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO		13. SKETCH ATTACHED ☐ YES ☒ NO	
14. Discovered During REC:G ☒ CONST ☐ TEST ☐		15. Equip Furnished By CLIENT ☐ ENG ☒ FLD ☐		16. Nonconforming Condition: 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 embeds. Contrary to the above, the pedestal welds on two A2 embeds have insufficient 5/8" fillets. "Q" number is 1.102. Hold pending final disposition. 2 hold tag(s) applied.		24. Disposition Concurrence REWORK ☒ REJECT ☐ REPAIR ☐ USE AS IS ☐ PROJECT FIELD ENGINEER <i>A. L. Boulden</i> 1-7-77 PROJECT ENGINEER <i>J. H. H. H. H.</i> 1-7-77 PROJECT CONSTR QC ENGINEER <i>J. H. H. H. H.</i> 1-7-77 AUTHORIZED INSPECTOR <i>J. H. H. H. H.</i> 1-7-77	
17. Reported By <i>Robert S. Manrow</i> 12/16/76		18. Validated By <i>J. H. H. H. H.</i> 12-16-76		25. Disposition Results Work completed as dispositioned in Block 22, Reference QCIR C-304-85W, A. L. Boulden 11/17/77		26. QC Acceptance <i>A. L. Boulden</i> 1/13/77 QC ENGINEER <i>A. L. Boulden</i> 1/13/77 AUTHORIZED INSPECTOR <i>A. L. Boulden</i> 1/13/77	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)		22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING The pedestal welds on the two A2 embeds which have insufficient 5/8" fillet welds will be built up and examined as required by Drawing C-413 Rev. 5. <i>Robert S. Manrow</i> 1/7/77		23. Project Engineering Disposition		26. QC Acceptance <i>A. L. Boulden</i> 1/13/77 QC ENGINEER <i>A. L. Boulden</i> 1/13/77 AUTHORIZED INSPECTOR <i>A. L. Boulden</i> 1/13/77	



TELECOPY TO FIELD

NONCONFORMANCE REPORT

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' 5/2.4.24	
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	9. Source Subcontractor	10. Contractor/Supplier Champion, Inc.	
11. Inspection Criteria IR NO. C-1.30-101 DWG ☐ SPEC ☒ OTHER NO. C-230 Rev. 8		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC'G ☒ CONST ☐ TEST ☐ CLIENT ☐ ENG ☒ FLD	
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.			15. Equip Furnished By		
Hold For Engineering Disposition. One (1) Hold Tag Applied			24. Disposition Concurrence		
17. Reported By Paul Vancin Date 12-27-76			18. Validated By M. Connolly Date 12-27-76		
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)			25. Disposition Results		
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Disposition requested by 2/9/77 Use as is. M. Connolly 1/4/77					
23. Project Engineering Disposition A D-1 mix for placement SWI(609)a which contains 528 lbs of fly ash in lieu of the 530 lbs required minimum for the 6 cubic yard batch will have an insignificant impact upon affected concrete properties. Project Engineering concurs with the Field Engineering recommended disposition to "use as is". ALD 1/21/77 E. M. 1-21-77 J. Connolly 1-21-77			26. QC Acceptance E. M. 1-21-77 QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		

10

Feb. 7220

[illegible]

[illegible]

Phlog. 1/27/77

(Block # 16 Continued)

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

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

Block # 23: PROJECT ENGINEERING DISPOSITION (CONT'D.):

- 1) The minimum concrete surface temperature was 40°F for approximately 30 hours during the curing period and freezing did not occur.
- 2) The cure for concrete pour was extended one full day.
- 3) Average 28 day strength results for the subject pour was 4545 psi. Required 90 day strength is 3000 psi (B-2 mix).
- 4) The subject pour was used for structural backfill.

ALD 1/26/77
J. H. Brown 1/26/77

NONCONFORMANCE REPORT

Log
Sent to AA 1-5-77

1. Project Name Midland		Job No. 7220		19. 654		20. 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. Spec Spec No. C-208 Rev. 8		7. Serial No. N/A		8. Replacement Part P/N N/A REV N/A	
9. Source Subcontractor		10. Contractor/Supplier United States Testing Co.		11. Inspection Criteria ☐ OWG ☒ SPEC ☐ OTHER		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	
13. SKETCH ATTACHED ☐ YES ☒ NO		14. Discovered During ☐ REC:G ☒ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☐ ENG ☒ 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." Contrary to this, 134 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 ID# was A (646) b' and the concrete mix was D-2. No Hold Tags Applied. "Q:" No. 6.101 Hold For Engineering Disposition.	
17. Reported By <i>Bob H. Hensley</i>		Date 12/31/76		18. Validated By <i>H. S. Hensley</i>		Date 1-3-77	
21. Routing ☐ TO FIELD ENGINEERING		☐ TO OTHERS (SPECIFY)		24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS		25. Disposition Results	
22. ☐ Field Engineering Disposition		☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING <i>Response requested by 1/31/77</i>		26. QC Acceptance QC ENGINEER DATE		AUTHORIZED INSPECTOR DATE	
23. Project Engineering Disposition		Use as is. In-process and compressive strength reports are enclosed for project engineering evaluation. This pour was the southwest corner of the control tower from approximately "5.3" line to "6.9" line and from "H to Kc" lines, elevation 632'6" to 646'0" designated as 646 wall 2. <i>KL Kambler 1/4/77</i>					

CONCRETE & PLACEMENT IDENTIFICATION

CEMENT IDENTIFICATION ALG906 THIN SECT. ☐ MASS CONC. ☐

CONCRETE CLASS I 5. MIX NO. D-2, D-2R

SLUMP WORKING LIMIT 2 INADVERTENCY MARGIN 2 1/2

ENTRAINED AIR CONTENT LIMITS 3-6 %

WEATHER CONDITION APPLICABLE MODERATE ☐ HOT ☐ COLD ☒

CONCRETE PLACING TEMPERATURE LIMITS 55-110°F 10. AMBIENT TEMPERATURE Min. 36 Max. 38

POINT OF SAMPLING PILOT PLANT

TICKET NO. TRUCK NO.	13. TIME	14. CUM. YARDAGE	15. SLUMP	16. CONC. TEMP.	17. % AIR ENT.	18. UNIT WEIGHT	19. COMPRESSIVE TEST SPEC		
							IDENTITY	QUAN.	
11451 38	1140	8	4 1/2	56 36	6.3	—			
11452 51	1146	24							
11455 51	1220	16							
11457 38	1231	24							
11459 51	1293	32							
11461 38	1254	40	4	59 38	6.0	196.10	11.61 11.625	6	
11464 51	1320	48							
11466 38	1330	56							
11467 51	1342	64							
11468 38	1356	72	5	59 38	—	—			
11469 51	1411	80							
11470 38	1420	88							
11471 50	1437	96							
11472 51	1435	104	4 1/2	55 38					
11473 38	1444	112							
11474 50	1451	120							
11476 51	1508	128							
11478 50	1547	132							
11479 50	1553	134							

TESTING EQUIPMENT:

AIR METER NO. 5 CALIBRATION DUE DATE 2-4-77

UNIT WEIGHT CONTAINER NO. 41 CALIBRATION DUE DATE 4-27-77

SCALE NO. 12 CALIBRATION DUE DATE 1-6-77

THERMOMETER NO. 117 CALIBRATION DUE DATE 1-26-77

CONCRETE REJECTED CU. YDS.

CONCRETE SAMPLED AND TESTED BY RM & DAI

ACCEPTED FOR TEST LAB BY DATE 11-15-76

LAND PROJECT 7/ST N-228K

DATE 11/17/76

7229-OC-C12-1



BECHTEL POWER CORPORATION
MIDLAND NUCLEAR POWER PLANT JOB 07220
REPORT OF CONCRETE CYLINDERS

NCR 654

QC ACCEPTANCE	DATE
CONTROL NUMBER 101	FILE NUMBER Au
DATE PLACED 11-10-76	

PLACEMENT IDENTIFICATION

A(646)b'

PLACEMENT LOCATION

Aux. Bldg. Wall 2

PLANT DATA	SOURCE Champion Incorporated	CEMENT BRAND AND TYPE Martin Marietta Type II
MIX D-2	CLASS I	"Q" LIST ☒ YES ☐ NO
		REQUIRED STRENGTH 5000 PSI AT 90 DAYS

TEST DATA AT BATCH PLANT

TICKET NO. 11461	TRUCK NO. 38	TIME OF MOLDING 1254 HOURS AT 40 YARDS	INITIALS RM/DM
SLUMP 4 INCHES	AIR CONTENT 6.0	UNIT WEIGHT 146.10 LBS/FT ³	TEMP: CONCRETE 54 °F
TEMP: AIR 38 °F	MOISTURES: SAND 1.9 %	STONE 1 0 %	STONE 2 0 %
WATER/CEMENT + POZZOLAN RATIO .41 MAX. .41 ACT.	INITIAL CURING 71 °F TO 71 °F	STRIPPED 11-11-76 AT 1030 HRS.	INITIALS DKM

TEST DATA AT PLACEMENT

Truck Discharge

TICKET NO. 11461	TRUCK NO. 38	TIME OF TESTING 1302 HOURS AT 40 YARDS	TIME OF MOLDING N/A HRS.
SLUMP 3 1/2 INCHES	AIR CONTENT 5.6	TEMP: CONCRETE 56 °F	TEMP: AIR 40 °F
INITIAL CURING N/A °F TO N/A °F	STRIPPED N/A AT N/A HRS.	INITIALS RL/BU	INITIALS N/A

COMPRESSIVE STRENGTH DATA

ASTM - C - 39 - 71

SPECIMEN IDENTIFICATION	DATE MOLDED	DATE TESTED	AGE	TOTAL LOAD IN POUNDS	ACTUAL CYL DIAM.	ACTUAL CYL AREA	TYPE OF BREAK	CURE		STRENGTH PSI
								FIELD	LAB	
8851--1161	11-10-76	11-17-76	7	90,000	6.03	28.56	A	1	6	3150
8852		"	7	94,000	6.03	28.56	A	1	6	3290
8853		12-8-76	28	150,000	6.04	28.65	B	1	27	5240
8854		"	28	148,000	6.04	28.65	B	1	27	5170
8855		2-8-77	90							
8856--1161		"	90							

STANDARD CYLINDER

☒ 6" X 12" ☐ CUBE ☐ CORE ☐ OTHER

REMARKS

AGE (DAYS) 7	TESTED BY DW	CHECKED BY <i>[Signature]</i>	CHECKED BY QC REP <i>[Signature]</i> 11/23/76
28	DW	<i>[Signature]</i>	<i>[Signature]</i> 12/13/76
LABORATORY SUPERVISOR			DATE

* TYPE OF BREAKS

A = CONE, MORTAR FAILURE B = CONE, AGGREGATE FAILURE C = SHEAR, MORTAR FAILURE
D = SHEAR, AGGREGATE FAILURE E = OTHER



BECHTEL POWER CORPORATION
MIDLAND NUCLEAR POWER PLANT JOB 07220
REPORT OF CONCRETE CYLINDERS

Page 5 of 5
NCR 654

PLACEMENT IDENTIFICATION

A(646)b'

QC ACCEPTANCE

DATE

CONTROL NUMBER

101

FILE NUMBER

110

DATE PLACED

11-10-76

PLACEMENT LOCATION

Aux. Bldg. Wall 2

PLANT DATA

SOURCE

Champion Incorporated

CEMENT BRAND AND TYPE

Martin Marietta Type II

MIX

D-2

CLASS

I

"Q" LIST

☒ YES

☐ NO

REQUIRED STRENGTH

5000

PSI

AT

90

DAYS

TEST DATA AT BATCH PLANT

TICKET NO.

11461

TRUCK NO.

38

TIME OF MOLDING

1305

HOURS AT

40

YARDS

INITIALS RM/DM

SLUMP

4

INCHES

AIR CONTENT

6.0

UNIT WEIGHT

146.10

LBS/FT³

TEMP. CONCRETE

54

TEMP. AIR

38

MOISTURES: SAND

1.9

STONE 1

0

STONE 2

0

WATER/CEMENT & POZZOLAN RATIO

.41

MAX.

.41

ACT.

INITIAL CURING

N/A

°F TO

N/A

STRIPPED

N/A

AT

N/A

HRS.

INITIALS N/A

TEST DATA AT PLACEMENT

TICKET NO.

11461

TRUCK NO.

38

TIME OF TESTING

1350

HOURS AT

40

YARDS

TIME OF MOLDING

1400

HRS.

SLUMP

2

INCHES

AIR CONTENT

4.3

TEMP. CONCRETE

60

TEMP. AIR

52

INITIALS

ID/RSW

INITIAL CURING

48

°F TO

64

STRIPPED

11-11-76

AT

1130

HRS.

INITIALS DW

COMPRESSIVE STRENGTH DATA

ASTM - C - 39 - 71

SPECIMEN IDENTIFICATION	DATE MOLDED	DATE TESTED	AGE	TOTAL LOAD IN POUNDS	ACTUAL CYL. DIAM.	ACTUAL CYL. AREA	TYPE OF BREAK	CURE		STRENGTH PSI
								FIELD	LAB	
8857--1162F	11-10-76	11-17-76	7	104,500	6.02	28.46	A	1	6	3670
8858		"	7	99,000	6.02	28.46	A	1	6	3480
8859		12-8-76	28	167,000	6.02	28.46	B	1	27	5870
8860		"	28	173,000	6.02	28.46	B	1	27	6080
8861		2-8-77	90							
8862--1162F	/	"	90							

STANDARD CYLINDER

☒ 6" X 12"

☐ CUBE

☐ CORE

☐ OTHER

REMARKS

Initial core log; field set - information test

AGE (DAYS)

7

TESTED BY

DW

CHECKED BY

J.S.

CHECKED BY QC REP

11/23/76

28

DW

J.S.

12/12/76

LABORATORY SUPERVISOR

DATE

* TYPE OF BREAKS

A = CONE, MORTAR FAILURE

B = CONE, AGGREGATE FAILURE

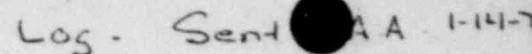
C = SHEAR, MORTAR FAILURE

D = SHEAR, AGGREGATE FAILURE

E = OTHER

10362
QC-C3A

UST N-265 @7 UST D-115 @ 28



1. Project Name Midland		Job No. 722		19. 655		20. 1 of 2	
2. Unit(s) Common		3. Drawing/Part No. 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 N/A REV		9. Source Subcontractor	
10. Contractor/Supplier United States Testing Co.		11. Inspection Criteria IR NO SC 1.05-6 C-208 Rev. 8		12. ASME AUTHORIZED INSPECTION REQ'D YES NO		13. SKETCH ATTACHED YES NO	
14. Discovered During REC G CONST TEST		15. Equip Furnished By CLIENT ENG FLD		16. Nonconforming Condition. Specification C-208, paragraph 7.3.2 states in part: "Cylinders shall be made, cured and tested in accordance with ASTM C-31 and C-39." ASTM C-31 states in part: "Remove test specimens . . . from the molds at the end of 20± 4h and store in a moist condition at 73.4± 3F until the moment of test." Contrary to this, cylinders being cured in the tanks listed below were not cured in accordance with ASTM C-31 for the period of 12-25-76 through 12-26-76. (Block 16 Continued on page 2)		24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS	
17. Reported By C. J. Smith		Date 12/31/76		18. Validated By C. J. Smith		Date 1-3-77	
21. Routing TO FIELD ENGINEERING		TO OTHERS (SPECIFY)		25. Disposition Results			
22. Field Engineering Disposition Response required by 2/11/77		Use as is. These cylinders represent the best data available for the concrete represented.		26. QC Acceptance QC ENGINEER DATE		AUTHORIZED INSPECTOR DATE	
23. Project Engineering Disposition							

RECEIVED

NONCONFORMANCE REPORT (CONT'D)

PAGE 2 OF 2

14 NCR NO 65

Block 16 Continued

<u>Tank #</u>	<u>Date</u>	<u>Curing Temperature</u>	<u>Tank #</u>	<u>Date</u>	<u>Curing Temperature</u>
1	12/25/76	72°-77°F	1	12/26/76	72°-77°F
3	12/25/76	70°-77°F	3	12/26/76	70°-77°F
4	12/25/76	74°-77°F	4	12/26/76	74°-77°F
5	12/25/76	58°-80°F	5	12/26/76	58°-30°F

It should be noted that the temperatures in tank #5 are very extreme and may be the result of improperly setting the thermometer prior to recording.

In addition, no temperatures were recorded in tank #7 for the period at 12/25/76 through 12/26/76.

No Hold Tags Applied.

"Q" No. 6.101

Hold For Engineering Disposition.



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 656	20. Page 1 of 2								
2. Unit(s) Unit 1	3. Drawing/ Part No. MP-90-1X	Rev 0	4. Item Description Shop Fabricated Pipe Spool	5. Item Location Roseyville Laydown Area									
6. P.O. Or Spec No. 7220-M104A-AC Rev 7	7. Serial No. 1HCB-11-S608-2-1	8. Replacement Part P/N N/A REV 7	SER NO. R-1.00-639	9. Source Supplier	10. Contractor/Supplier ITT Grinnell, Kernersville, N.C.								
11. Inspection Criteria ☐ DWG ☒ SPEC ☐ OTHER NO. M-201 Rev 7		12. ASME AUTHORIZED INSPECTION REQ'D ☒ YES ☐ NO		13. SKETCH ATTACHED ☒ YES ☐ NO	14. Discovered During ☒ REC:G ☐ CONST ☐ TEST ☐ CLIENT ☒ ENG ☐ FLD								
16. Nonconforming Condition: Specification 7220-M-201, Rev 7, Para 6.6.8 states: "Pipe and fittings shall be adequately blocked, strapped or otherwise held in position during shipment and they shall be further separated by dunnage as may be necessary to prevent damage." Contrary to the above, pipe spool 1HCB-11-S608-2-1 was delivered with damage as described on Page 2. "Q" number is 4.082. Hold pending final disposition. <u>1</u> hold tag(s) applied.				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>☐</td></tr></table> 1/21/77 PROJECT FIELD ENGINEER DATE 1-26-77 PROJECT ENGINEER DATE 1-26-77 PROJECT CONSTR QC ENGINEER DATE 1-26-77 AUTHORIZED INSPECTOR DATE		REWORK	REJECT	REPAIR	USE AS IS	☒	☐	☐	☐
REWORK	REJECT	REPAIR	USE AS IS										
☒	☐	☐	☐										
17. Reported By John R. P. Jr.		Date 1-4-77		18. Validated By McConolly Date 1-5-77									
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)													
22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Field to rework damaged spool 1HCB-11-S608-2-1 by cutting off damaged end of piece No. 1 and replacing with new material. Dented weld end prep of piece No. 3 may be reworked by grinding at time of fit-up. George G. Butley 1-20-77 SAH. Pulits 1-20-77													
23. Project Engineering Disposition													
26. QC Acceptance <table border="1"><tr><td>QC ENGINEER</td><td>DATE</td></tr><tr><td>AUTHORIZED INSPECTOR</td><td>DATE</td></tr></table>						QC ENGINEER	DATE	AUTHORIZED INSPECTOR	DATE				
QC ENGINEER	DATE												
AUTHORIZED INSPECTOR	DATE												

ITT Grinnell Industrial Piping Inc.

KERNERSVILLE, N. C.

Rev 2 of 2

#475

7091

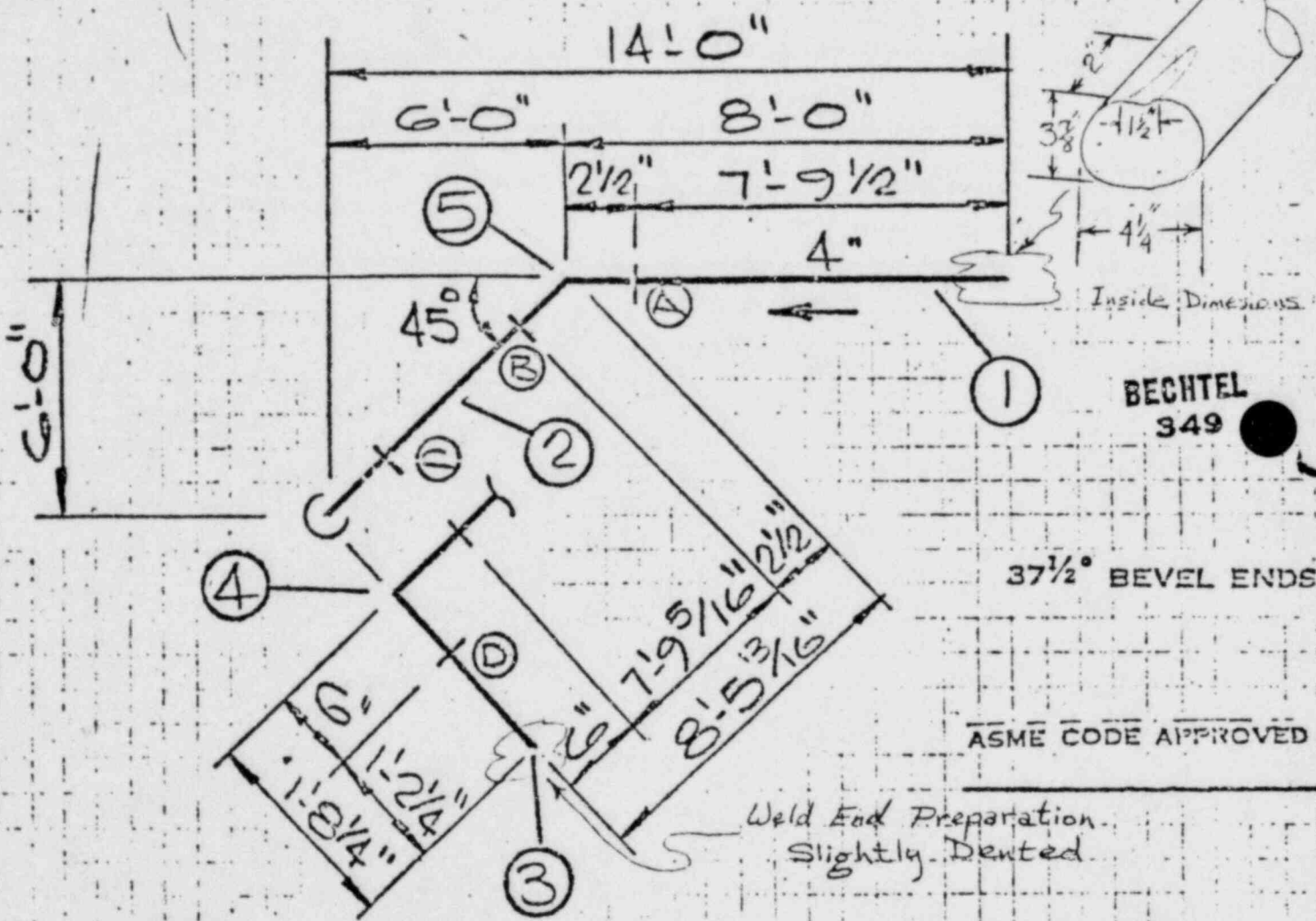
INT. NO. 7091
NAME CONSUMERS POWER COMPANY
LOCATION MIDLAND, MICHIGAN

NCR 656

Page 2 of 2

DRW'N DAN
REV. _____
REV. _____
REV. _____

CHK'D W.C. 8/12/76
CHK'D _____
CHK'D _____
CHK'D _____



PIPE : SCH. 10S SA312 OR 316 TP 304
FIT : SCH. 10SSA 403 WP 304 OR 304W.
STAINLESS STEEL

CLASS NUC. 2 LINE SPEC. IHCB APP. CODE ASME III NO. REQ'D 1

Radiography (RT)	☒	Special Marking	☐	Preheat	☐	Cert. of Compliance	☐
Magnetic Particle (MT)	☐	Special Cleaning	☒	Heat Treat	☐	Mill Test Reports	☐
Dye Penetrant (PT)	☐	Painting	☐	Code Stamp	☒	Data Reports	☒

SYSTEM BORON RECOVERY FAB. SPECS. FS350N, SS-KV-19

REF. DRWG NO. M 608 SHI. 2A PRESS. 100 PSI. TEMP. 250 °F. WT. 97 LBS.

ECC MARK 1-IHCB-11-S-608-2-1 REGISTERED MP-90-1X



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 657		20. Page 1 of 2					
2. Unit(s) Common		3. Drawing/ Part 7220-M-614 Sht 8		Rev 3		4. Item Description Pipe Spool		5. Item Location Sasse Rd Laydown			
6. P.O. Or Spec No. 7220-M-104A		7. Serial No. See Block 16		8. Replacement Part P/N N/A REV		9. Source Vendor		10. Contractor/Supplier ITT Grinnell, Kernersville			
11. Inspection Criteria ☐ DWG ☒ SPEC ☐ OTHER		IR NO. N/A NO. M-201, M-202		12. ASME AUTHORIZED INSPECTION REQ'D ☒ YES ☐ NO		13. SKETCH ATTACHED ☐ YES ☒ NO		14. Discovered During ☐ REC.G ☒ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ FLD	
16. Nonconforming Condition: P.O. 7220-M-104A-AC, Rev. 7 requires supplier to furnish the following piping: "Shop fabricated carbon and austenitic stainless steel nuclear piping, 2 1/2" and larger in accordance with Specification 7220-M-201." Piping isometric drawing 7220-M-614 Sht. 8, Rev. 3 shows that a portion of pipe spool OHCD-621-S614-8-1 is piping class HCC (Nuclear Piping Class 3). Contrary to the above, 3'-7 3/8" of spool OHCD-621-S614-8-1 was furnished to the requirements of P.O. 7220-M-104B-AC, Rev. 6 (Specification 7220-M-202 and								24. Disposition Concurrence			
								REWORK REJECT REPAIR USE AS IS			
								PROJECT FIELD ENGINEER DATE 1/24/77			
								PROJECT ENGINEER DATE 1-25-77			
								PROJECT CONSTR QC ENGINEER DATE 1-25-77			
								AUTHORIZED INSPECTOR DATE			
17. Reported By James W Miller 1-7-77				18. Validated By J. Connolly 1-7-77				25. Disposition Results			
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)											
22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING											
Spool OHCD-621-S-614-8-1 (MS-67-30) will be reworked in the field. The existing Non'Q 3'-7 3/8" section will be replaced with "Q" (HCC Class) material.											
George G. Butler 1-24-77											
J. K. Pulito 1-24-77											
23. Project Engineering Disposition											
26. QC Acceptance											
QC ENGINEER DATE											
AUTHORIZED INSPECTOR DATE											

Block 16 continued.

ANSI B-31.1) and not to the requirements of P.O. 7220-M-104A-AC, Rev. 7(Specification 7220-M-201 and

ASME III Class 3).

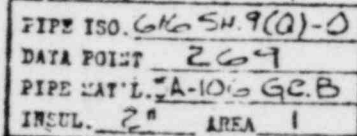
Q List #4.144.

1 QC Hold Tags applied. Hold for Engineering Disposition,



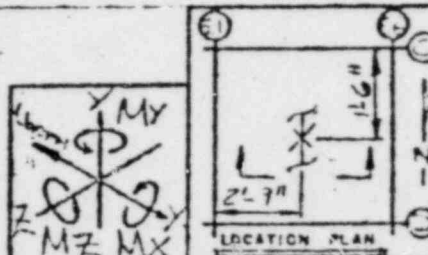
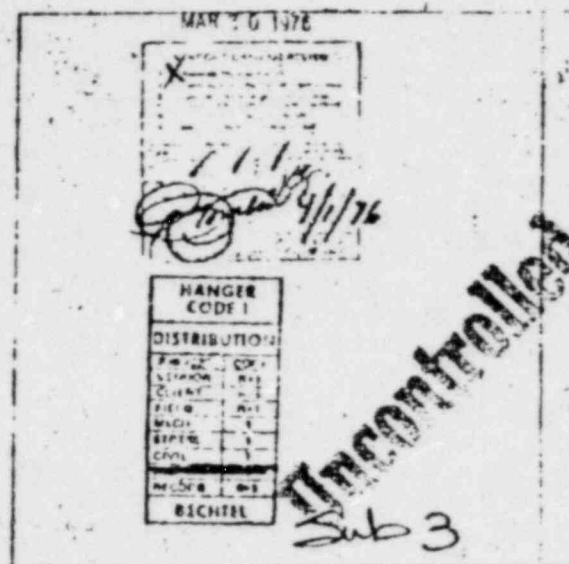
NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 658	20. Page 1 of 2
2. Unit(s) #1	3. Drawing/Part No. Sketch 1-616-9-6	Rev 2	4. Item Description Hanger 18-1HEC-133-H2	5. Item Location Aux. 593' 1' south of C, 3' east S.1	
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 ☒ DWG ☐ SPEC ☐ OTHER		IR NO. P-2.10-616-9 NO. 1-616-9-6	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☒ YES ☐ NO	14. Discovered During ☐ REC.G ☒ CONST ☐ TEST
15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ FLD					
16. Nonconforming Condition: Grinnell drawing 1-616-9-6, Rev. 2, Sub. 3 details item #3 welded to item #2 allowing the strut to move vertically. Contrary to the above, item #3 has been welded in place allowing horizontal movement (Turned 90° to design requirement). Q List #4.162. One Hold Tag applied. Hold for Engineering Disposition.			24. Disposition Concurrence REWORK ☒ REJECT ☐ REPAIR ☐ USE AS IS ☐ FILE <i>[Signature]</i> 1/28/77 PROJECT FIELD ENGINEER DATE PROJECT ENGINEER DATE <i>[Signature]</i> 1-28-77 PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		
17. Reported By <i>Tim A. Ratter</i>		Date 1/11/77		18. Validated By <i>[Signature]</i> 1-11-77	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)					
22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
Rework: Field is to correct installation to conform to latest revision of sketch 1-616-9-6. <i>[Signature]</i> 1/27/77 <i>[Signature]</i> 1/27/77 <i>[Signature]</i> 1-27-77					
23. Project Engineering Disposition					
26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR DATE					



- NOTES**
- 1) All tolerances in accordance with QCP #2A001 U.N.O.
 - 2) Fab. Procedure is FM-101-10
 - 3) All products designed in accordance with EPL File No.1
Fab.1

Shop Weld No.	Weld Procedure	Exam. Procedure



THIRD PARTY INSPECTION
CODE CLASS: ASME-III-

[illegible]

ITT GRINNELL PIPE HANGER DIVISION					CONDITIONS						Fx	Fy	Fz	Mx	My	Mz
REF. DRAWING NUMBERS					DESIGN						---	---	---	---	---	---
					NORMAL & UPT						---	---	---	---	---	---
					EMERGENCY						---	---	---	---	---	---
PIPE: <u>150 GALV. C</u> ELECT: <u>---</u>					FAULTED						---	---	---	---	---	---
STEEL: <u>---</u> H.V.A.C.: <u>---</u>											---	---	---	---	---	---
REV.	DATE	BY	CHK.	DESCRIPTION	CUSTOMER: <u>CONQUEST POWER CO.</u>											
0	---	---	---	---	ORDER OR CONT. NO. <u>E.O. #720-B-106-AL</u>											
1	---	---	---	---	JOB NAME: <u>MIDLAND 1 & 2 HRR. BAY L</u>											
2	---	---	---	---	MARKING: <u>---</u>											
3	---	---	---	---	SKETCH NO. <u>---</u>											
4	---	---	---	---	SHEET <u>1</u> OF <u>1</u> REV. <u>2</u>											



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 659	20. Page 1 of 2																												
2. Unit(s) #1	3. Drawing/Part No. See Block #16	Rev N/A	4. Item Description 4" Pipe Spools	5. Item Location Combination Shop																													
6. P.O. Or Spec No. 7220-M-104A-AC	7. Serial No. N/A	8. Replacement Part P/N N/A REV N/A	9. Source Supplier	10. Contractor/Supplier ITT Grinnell																													
11. Inspection Criteria ☒ DWG ☐ SPEC ☐ OTHER NO. M-512 sh 3 Rev. 2/F		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC'D ☒ CONST ☐ TEST	15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ FLD																												
16. Nonconforming Condition: During In-Process Inspection activities of spool Nos. LHBC-303-S512-3-2 (Heat #L21952) and LHBC-303-S512-3-3 (Heat #L21942) it was noted that the physical spool configuration does not agree with the ITT Grinnell spool drawings. Spool No. LHBC-303-S512-3-2 should be No. LHBC-303-S512-3-3 and No. LHBC-303-S512-3-3 should be No. LHBC-303-S512-3-2. Also the Heat numbers on these spools do not agree with the Heat numbers shown on the spool drawings and documentation furnished by the supplier. 2 Hold Tags Applied. "Q" List No. 4.538 Hold For Engineering Disposition.			24. Disposition Concurrence <table border="1"><thead><tr><th>REWORK</th><th>REJECT</th><th>REPAIR</th><th>USE AS IS</th></tr></thead><tbody><tr><td colspan="4">000</td></tr><tr><td colspan="2">C. Boon</td><td colspan="2">1/18/77</td></tr><tr><td colspan="2">PROJECT FIELD ENGINEER</td><td colspan="2">DATE</td></tr><tr><td colspan="2">PROJECT ENGINEER</td><td colspan="2">DATE</td></tr><tr><td colspan="2">PROJECT CONTROL ENGINEER</td><td colspan="2">DATE</td></tr><tr><td colspan="2">AUTHORIZED INSPECTOR</td><td colspan="2">DATE</td></tr></tbody></table>			REWORK	REJECT	REPAIR	USE AS IS	000				C. Boon		1/18/77		PROJECT FIELD ENGINEER		DATE		PROJECT ENGINEER		DATE		PROJECT CONTROL ENGINEER		DATE		AUTHORIZED INSPECTOR		DATE	
REWORK	REJECT	REPAIR	USE AS IS																														
000																																	
C. Boon		1/18/77																															
PROJECT FIELD ENGINEER		DATE																															
PROJECT ENGINEER		DATE																															
PROJECT CONTROL ENGINEER		DATE																															
AUTHORIZED INSPECTOR		DATE																															
17. Reported By Frank J. Maluda 1-11-77		18. Validated By R. J. Legg 1-11-76		25. Disposition Results																													
21. Roding ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)																																	
22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING																																	
Field Procurement Supervisor is to obtain corrected documentation. See attached spool sheets, shop travelers, & mill test report. The heat # on the shop traveler is incorrect. Upon receipt of the corrected shop traveler, the field will correct the spool number which is now painted on the subject spools. R. J. Legg 1-14-77 H. P. L. 1-19-77																																	
23. Project Engineering Disposition																																	
26. QC Acceptance <table border="1"><thead><tr><th>QC ENGINEER</th><th>DATE</th></tr></thead><tbody><tr><td></td><td></td></tr><tr><td>AUTHORIZED INSPECTOR</td><td>DATE</td></tr></tbody></table>						QC ENGINEER	DATE			AUTHORIZED INSPECTOR	DATE																						
QC ENGINEER	DATE																																
AUTHORIZED INSPECTOR	DATE																																

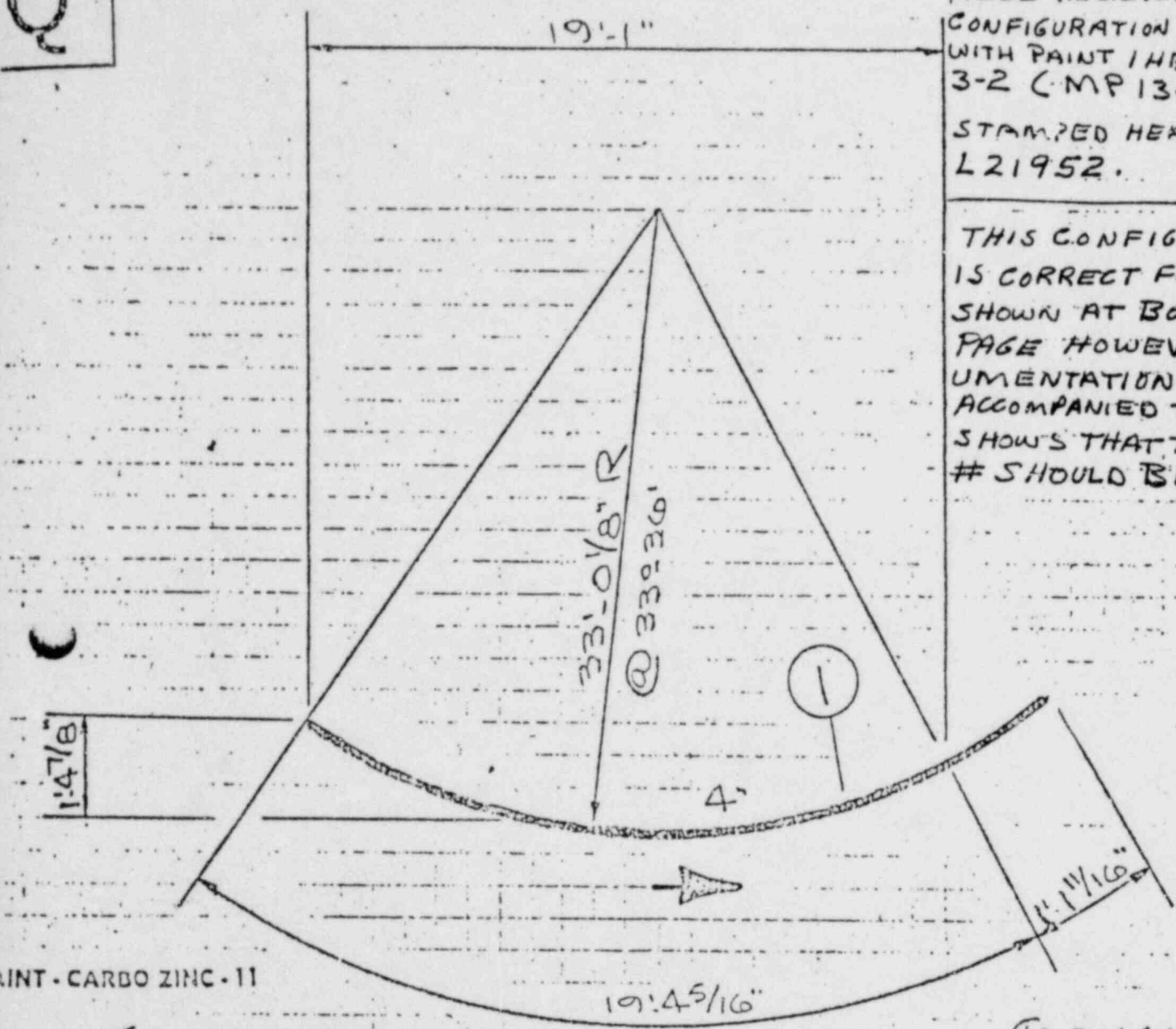
2:235
 FEB OR CONT NO. 7091
 CONSUMERS POWER COMPANY
 MIDLAND, MICHIGAN

NCR 659
 DEPT. _____
 DRW'N DT CHK'D DM L. G. 75
 REV. EMH 3/17/75 CHK'D DMH
 REV. _____ CHK'D _____



PIECE RECEIVED IN THIS
 CONFIGURATION IS MARKED
 WITH PAINT 1 HBC-303-5512-
 3-2 (MP 13-2)
 STAMPED HEAT CODE IS
 L21952.

THIS CONFIGURATION
 IS CORRECT FOR SPOOL #
 SHOWN AT BOTTOM OF
 PAGE HOWEVER DOC-
 UMENTATION WHICH
 ACCOMPANIED THIS SHEET
 SHOWS THAT THE HEAT
 # SHOULD BE L21942



INT - CARBO ZINC - 11

REVIEWED
 F. B. B. B.
 1354
 8/20/76

ASME CODE APPROVED

37 1/2° BEVEL ENDS

CARBON STEEL

ASS. NUC. CL. 3	LINE SPEC. LHBC	APP. CODE ASME SEC. III	NO. REQ'D 1
RADIOGRAPHY (RT)	SPECIAL MARKING	PREHEAT	CERT. OF COMPLIANCE
ARTICLE (MT)	SPECIAL CLEANING	HEAT TREAT	MILL TEST REPORTS
IQ. PENETRANT (PT)	PAINTING	CODE STAMP	DATA REPORTS

SYSTEM HVAC FAB. SPECS. FS-101M, SS-KV-19
 DRWG NO. M-512 SH. 3 PRESS. 150 PSI. TEMP. 300 °F. WT. 259 LBS.

JOB CONTAINERS POWER

CONT. NO. 7021

REG. NO. ME-133

SER. NO. ME-133

SYSTEM 1113C-303 3-512 SPEC. F-5-101N

SUPPLEMENT 25-13-10

WELDING DATA

WELD IDENT.	ENR								
PROCEDURE NO.	QC								
SPEC. SUPPLEMENT	QC								
INSPECT	WACH. & FIT UP	QC							
FOR:	PREHEAT	QC							
	TACK	S							
WELDER IDENT.	ROOT	S							
	INT	S							
	DAL	S							
WELD PROCESS	TACK	S							
	ROOT	S							
	INT								
	DAL	S							
WELD MATERIAL IDENT.	TACK	S							
	ROOT	S							
	INT	S							
	FINAL	S							
	INSERT/D-RING HEAT MAT'L NO.	S							
	Q.C. VERIFICATION	QC							
RADIO-GRAPHY	ORINHELL APP.	QC							
	AUTH. INSP.	QC							
	CUSTOMER APP.								
LP. OR MP. TEST	ROOT	QC							
	FINAL	QC							

MATERIAL DATA

SK IDENTITY	REC. INSP.	HEAT NO.	INTR	INTR	WELD MAT'L	DIA.	HEAT/LOT NO.
① 4" S130116-0	4/11/72	L219/2	P111				
②							
③							
④							
⑤							
⑥							
⑦							

PROCESS DATA

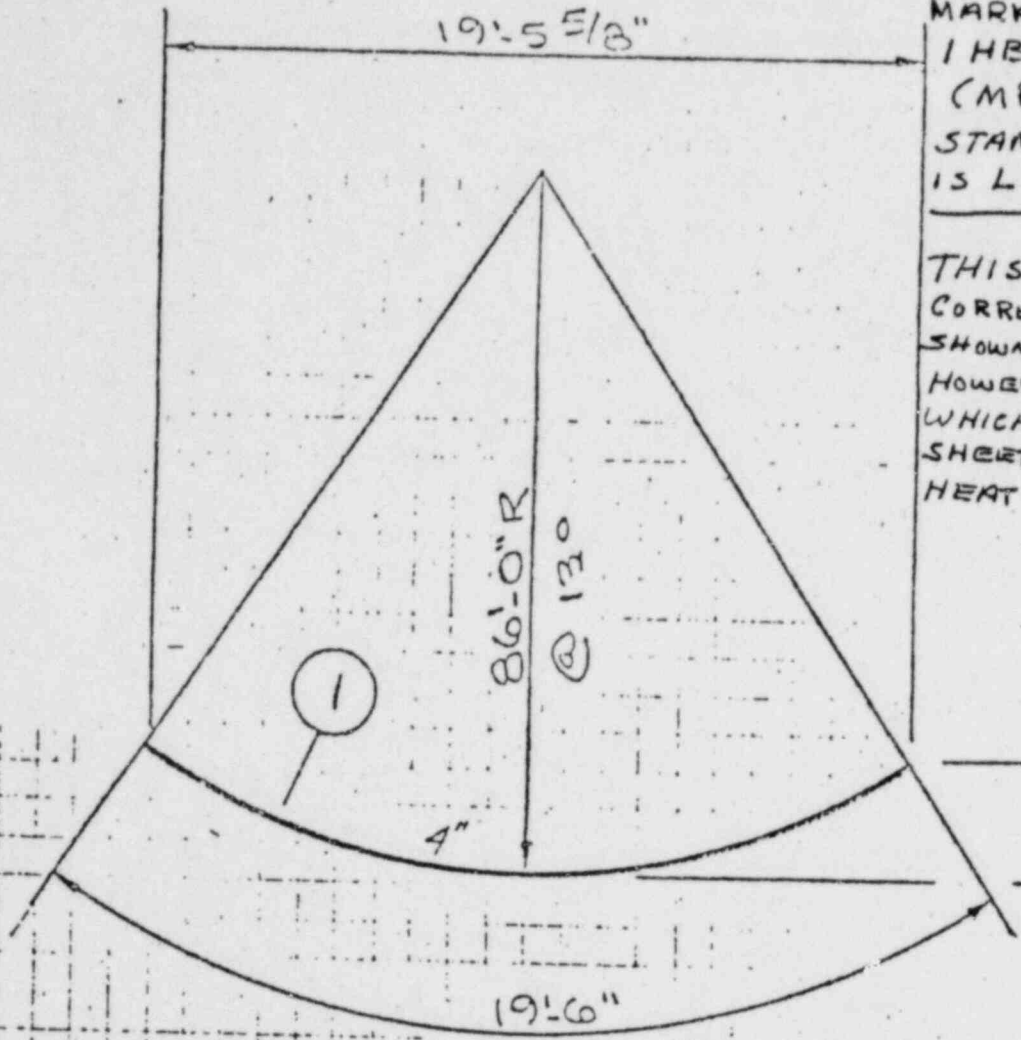
RECS CHART	CLEAN	PAINTING	READY FOR SHIPMENT	REMARKS
1/1	60	1/8	1/10	1/10
WARE UP	5	MACHINE "C" DIA. AND WALL THICKNESS OF OPEN ENDS		

FINAL APPROVAL ET DATE 5/1/72

CUSTOMER APPROVAL _____ DATE _____

APPLICABLE REVISION NUMBER SHALL BE SHOWN.

Q



PIECE RECEIVED IN
THIS CONFIGURATION IS
MARKED WITH PAINT
1 HBC-303-S-512-3-3
(MP 13-3).
STAMPED HEAT CODE
IS L 21942.

THIS CONFIGURATION IS
CORRECT FOR SPOOL #
SHOWN AT BOTTOM OF PAGE
HOWEVER DOCUMENTATION
WHICH ACCOMPANIED THIS
SHEET SHOWS THAT THE
HEAT # SHOULD BE L21952.

PAINT - CARCO ZINC-11

ASME CODE APPROVED

37 1/2° BEVEL ENDS

CARBON STEEL

*REVIEWED
J. B. Brown
BEARING GROUP
8/17/75*

SS Nuc. CL. 3 LINE SPEC. I HBC APP. CODE ASME SEC. III NO. REQ'D 1

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

SYSTEM HVAC

FAB. SPECS. FS-10 IN. SSKV-19

DRW'G NO. M-512-SHT. 3 PRESS. 150 PSI. TEMP. 300 °F. WT. 246 LBS.

MASTER MP-13-2 I HBC-303-S-512-3-2 MP-13-2

2

JOB CONSIDERS POWER

CONT NO. 7091

SYSTEM *Hydraulic Ventilation Unit* CLASS *H-3*REG. NO. HP- *1-1-2*PC, INC. *1410-305-5-512* SPEC. *F-3-1011*SK. NO. HP- *1-3-2*SUPPLEMENT *SS-KV-19*

WELDING DATA

WELD IDENT.	END								
PROCEDURE NO.	QC								
SPEC. SUPPLEMENT	QC								
INSPECT	MACH. & FIT UP	QC							
FOR:	PREHEAT	QC							
	TACK	S							
WELDER	ROOT	S							
IDENT.	INT.	S							
	DAL.	S							
	TACK	S							
WELD	ROOT	S							
PROCESS	INT.								
	DAL.	S							
	TACK	S							
WELD	ROOT	S							
MATERIAL	INT.	S							
IDENT.	FINAL	S							
	INSERT/D-RING HEAT	S							
	MAT'L NO.								
	Q.C. VERIFICATION	QC							
	ORINHELL APP.	QC							
RADIO-	AUTH. INSP.	QC							
GRAPHY	CUSTOMER APP.								
LP. OR MP.	ROOT	QC							
TEST	FINAL	QC							

MATERIAL DATA

SK IDENTITY	REC. INSP.	HEAT NO.	UTR	WELD MAT'L	DIA.	HEAT/LOT NO.
① 4" S11 SAIC-60A	4114	L219528				
②						
③						
④						
⑤						
⑥						
⑦						
⑧						
⑨						
⑩						

PROCESS DATA

STRESS CHART NO. <i>N/1</i>	CLEAN <i>260</i>	PAINTED <i>148</i>	READY FOR SHIPMENT <i>1/1/1</i>	REMARKS <i>Welded on 3/19/76</i>
SQUARE UP <i>11</i>	MACHINE "C" DIM. AND WALL THICKNESS OF OPEN ENDS <i>1.1</i>			

FINAL APPROVAL *FT* DATE *8/1/76*

CUSTOMER APPROVAL _____ DATE _____

* APPLICABLE REVISION NUMBER SHALL BE SHOWN.

20. CONTRACT NO.

P. O. DATE

PURCHASE ORDER NO.

CHA-109-KER-2624P *Stock*

SHIPPERS NO.

MILL ORDER NO.

INVOICE NO.

AC82100

VEHICLE
IDENTITY

05/22/76

LURAIN-GUYAHOGA

TT GRINNELL CORP
431 WEST MOREHEAD ST
CHARLOTTE N C 28208

TT GRINNELL INDUSTRIAL PIPING
P O BOX 566
KERNERSVILLE NC 27284
ATTN BH PHILLIPS

M
A
I
L
T
O

WE HEREBY CERTIFY THAT THE
FIGURES SET FORTH BELOW
ARE CORRECT, AS CONTAINED
IN THE RECORDS OF THE
COMPANY.

SIGNATURE *E.L. BARTOLUTTA, CH.M.*

DATE 06/01/76

NO.	MATERIAL DESCRIPTION				MATL.	HEAT/ LOT NO.	MIN. HYDRO PSI	YIELD STR. PSI	TENSILE STR. PSI	ELONG. % IN 2"	GAGE WIDTH IN.	FLAT
	SIZE	WALL	SPECIFICATION & GRADE									
	4 1/2 OD	.25	ASTM A106, ASME SA106 GR B		SMLS	L21942	2800	38000	68800	38.0	1 1/2	UK
	4 1/2 OD	.25	ASTM A106, ASME SA106 GR B		SMLS	L21952	2800	39800	69400	40.0	1 1/2	UK

NO.	HEAT NO.	TYPE	C	MN	P	S	SI	CU	NI	CR	MO	SN	AL	N	V	B	TI	CB	CO
	L21942	LADL	22	57	005	014	140												
	L21952	LADL	23	65	005	014	130												

REVIEWED
J.R. Brown
5/10/16

OK
G
T.W.

*Reviewed
T. L. Brown
8/2/76*

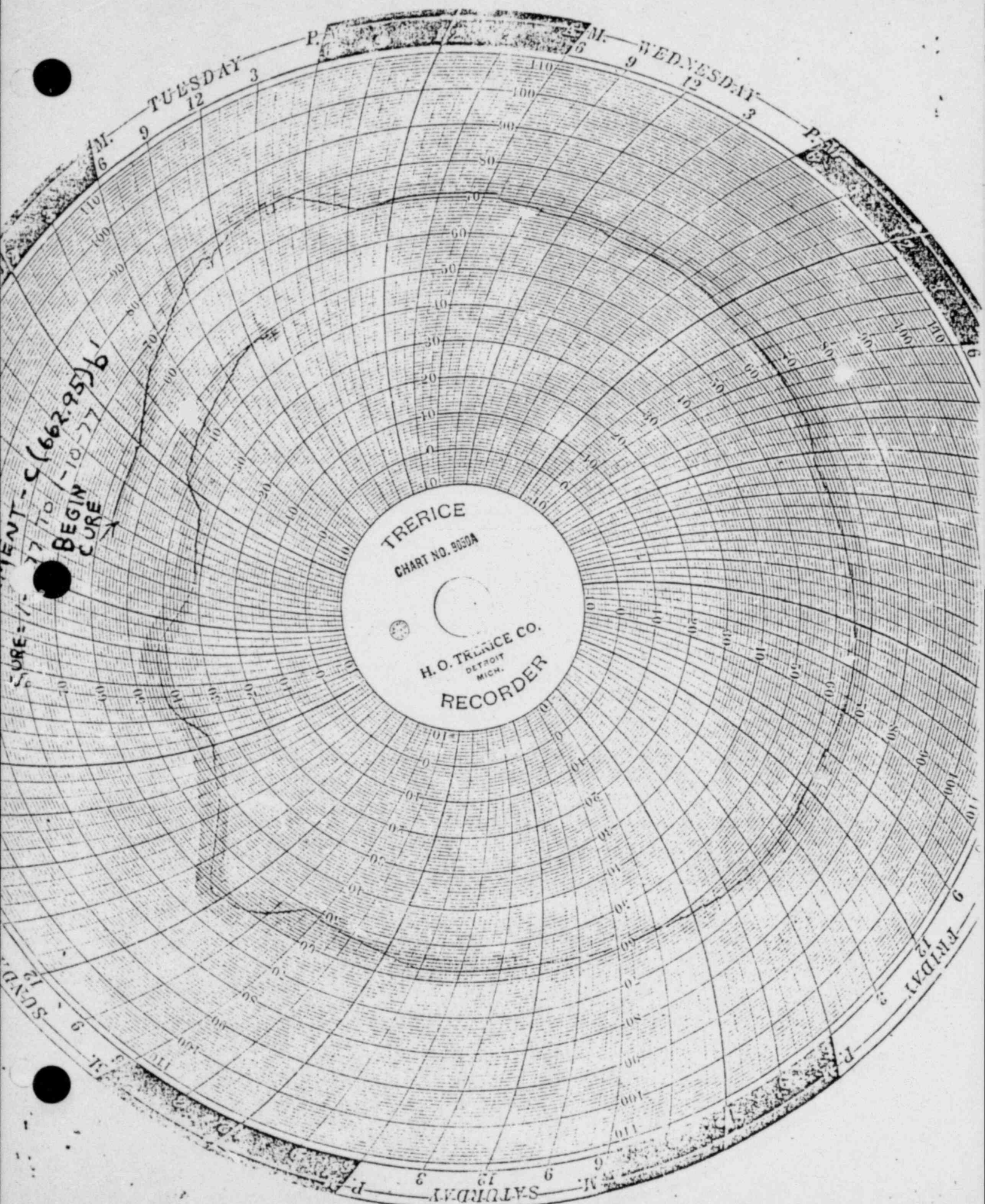




NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 660	20. Page 1 of 23
2. Unit(s) Unit #1	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Concrete Curing	5. Item Location C(662.95)b'	
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 ☐ DWG ☒ SPEC ☐ OTHER		IR NO. C-1.40-112 NO. C-231, Rev. 12	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☒ YES ☐ NO	14. Discovered During ☐ REC'G ☒ CONST ☐ TEST
15. Nonconforming Condition: Specification 7220-C-231, Rev. 12, Para. 13.2.4 states..... "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, concrete placement C(662.95)b' of 1/3/77 was allowed to drop below 50° from 16:30 on 1/9/77 to 12:00 on 1/11/77. This condition was caused by a general project break-down in the L.P. gas delivery system. "Q"-List is 1.105. Hold for Engineering Disposition. One Hold Tag Applied.				15. Equip Furnished By ☐ CLIENT ☐ E/G ☐ FLO	
17. Reported By Paul Van... 1-11-77				24. Disposition Concurrence	
				REWORK REJECT REPAIR USE AS IS	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)				25. Disposition Results	
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING DISPO. REQUESTED BY 1/14/77					
Use as is. The initial 6 days of cure were satisfactory. Concrete temperature dropped from 50°F to approximately 36°F over a period of 7½ hours (approximately 2°F per hour). Cure will be extended to provide a minimum of 7 days of adequate curing.					
23. Project Engineering Disposition Concrete subjected to low curing temperature after approximately 140 hours of initial adequate curing will be sufficiently cured to insure durability of the concrete surface but may tend to have a slightly lower early compressive strength. Project Engineering concurs with the Field Engineering recommended disposition to "use as is" based on the following: 1) Proper curing temperatures were used during the first 142 hours of curing					
				26. QC Acceptance QC ENGINEER 1/28/77	
				AUTHORIZED INSPECTOR DATE	

(Contd.)





IN-PROCESS CONCRETE TEST REPORT

Pages 3 of 5
NCR 654

1. INSPECTION PLAN NO. C-130-54 DATE 11-10-76 PAGE 1 OF 1

CONCRETE & PLACEMENT IDENTIFICATION

3. PLACEMENT IDENTIFICATION A(646)5' Wall 2 Aux THIN SECT. ☐ MASS CONC. ☒
4. CONCRETE CLASS I 5. MIX NO. D-2
6. SLUMP WORKING LIMIT 3" INADVERTENCY MARGIN 2"
7. ENTRAINED AIR CONTENT LIMITS 3-6 %
8. WEATHER CONDITION APPLICABLE MODERATE ☐ HOT ☐ COLD ☒
9. CONCRETE PLACING TEMPERATURE LIMITS 45°-65° 10. AMBIENT TEMPERATURE Min. 34° Max. 40°

11. POINT OF SAMPLING FIELD

12. TICKET NO. TRUCK NO.	13. TIME	14. CUM. YARDAGE	15. SLUMP	16. CONC. TEMP.	17. % AIR ENT.	18. UNIT WEIGHT	19. COMPRESSIVE TEST SPEC.		
							IDENTITY	QUAN.	CUR
11451	38		5	59°	6.2		Tailgate		
11452	51	Groat	5				Tailgate		
11451	38	8	4/3	59°/60	5.2/5.6	40°	TD/EOL		
11455	51	16				40°			
11457	38	24				40°			
11459	51	32				40°			
11461	38	40	3 1/2 / 2 1/2	59/60	5.6/4.3	40°	TD/EOL		
11464	51	48				40°			
11466	38	56				40°			
11467	51	64				40°			
11468	38	72	3 1/2"	56°		40°			
11469	51	80				38°			
11470	38	88				38°			
11471	50	96				38°			
11472	51	104	3"	56°		38°			
11473	38	112				38°			
11474	50	120				38°			
11476	51	128				36°			
11477	50	132	3"	56°		34°			
11478	50	134				34°			

20. TESTING EQUIPMENT:

AIR METER NO. 90 CALIBRATION DUE DATE 2/8/77
UNIT WEIGHT CONTAINER NO. - CALIBRATION DUE DATE -
SCALE NO. 98 CALIBRATION DUE DATE 2/16/77
THERMOMETER NO. 98 CALIBRATION DUE DATE 2/16/77

21. CONCRETE REJECTED CU. YDS.

22. CONCRETE SAMPLED AND TESTED BY

23. QUALITY CONTROL ACCEPTANCE BY

U.S. Testing Ray L. Bill L.

DATE 11-11-76

Block # 23, Project Engineering Disposition:- (Contd.)

- 2) The concrete surface temperature drop was gradual.
- 3) The concrete cure was extended approximately 48 hours at temperatures above 50°F to provide at least 7 days of adequate curing.

ALD 1/14/77
 Required 1-14-77
 G. A. Johnson 1-14-77

log Sum to AA

1. Project Name Midland Nuclear Project		Job No. 07220		19. No. 61		20. Page 1 of 1	
2. Unit/ Aux. Bldg.		3. Drawing/Part No. N/A		4. Item Description Concrete Curing		5. Item Location 4. (666.2', Wall #9	
6. P.O. or Spec No. N/A		7. Serial No. N/A		8. Replacement Part Rev. N/A		9. Source Construction	
11. Inspection Criteria ☐ Conforms to Spec ☐ Other		12. ASME AUTHORIZED INSPECTION REQUIRED ☐ YES ☒ NO		13. SKETCH ATTACHED YES ☐ NO ☒		14. Detected During ☐ PRE-CONSTRUCTION ☐ POST-CONSTRUCTION ☐ DURING CONSTRUCTION	
15. Nonconforming Condition Specification 7220-C-231, Rev. 12, Para. 13.2.4 states in part.... "When artificial heat is used, the housing, coverings, or other protection shall remain in place and intact for at least 24 hours after the heat is discontinued." Contr. is to the above on Aux. Bldg. Wall #9 1' W. of 7' line on "A" line, the housing was found not intact during the 24 hour period. The concrete surface temp. (west end of Wall #9; Elev. 634' to Elev. 637') was 32°F. "Q"-List No. 1.205. One Cold Test Applied. Hold for Engineering Disposition.							
17. Reported By [Signature]		Date 1-11-77		18. Validated By [Signature]		Date 1-11-77	
21. Routing ☒ TO FIELD ENGINEERING		☐ TO OTHER (SPECIFY)					
22. ☐ Field Engineering Disposition		X FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Response required by 1/13/77 Field recommends "Use As Is". Project Engineering to evaluate. No damage detected by visual inspection. [Signature] 1-11-77 [Signature] 1-11-77					
23. Project Engineering Disposition							
26. QC Acceptance							
QC ENGINEER							
AUTHORIZED INSPECTOR							



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 662		20. Page 1 of 2					
2. Unit(s) Common		3. Drawing/Part No. 7220-C-255		Rev 5		4. Item Description Concrete Cover		5. Item Location 5.6 Line Wall			
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 ☒ DWG ☐ SPEC ☐ OTHER NO. 7220-C-255 rev5		IR NO. N/A		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO		13. SKETCH ATTACHED ☐ YES ☒ NO		14. Discovered During ☐ REC:G ☒ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ FLD	
16. Nonconforming Condition: Drawing 7220-C-255, Rev. 5 specifies that the concrete cover in the Fuel Pool be 1 1/2" to 3". Contrary to the above, on the east face of the 5.6 line wall at the Spent Fuel Pool, the concrete cover is 4 1/2". Existing concrete is placed to Elev. 644'9" south of a line located approximately 11'0" north of Column Line "G", and placed to Elev. 633'3" north of the same line. Approximately 17 dowels protruding from the vertical construction joint and approximately 25 dowels protruding from the								24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS X			
								PROJECT FIELD ENGINEER DATE 1-24-77			
								PROJECT ENGINEER DATE 1-14-77			
								PROJECT CONSTR QC ENGINEER DATE 1-24-77			
								AUTHORIZED INSPECTOR DATE			
17. Reported By Steven [Signature] 1/12/77		Date 87		18. Validated By [Signature] 1-12-77		Date 1-12-77		25. Disposition Results			
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)											
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Use as is. Adjust clearance to meet requirements as soon as possible above existing concrete. Steven [Signature] 1/12/77 [Signature] 1/12/77											
23. Project Engineering Disposition Engineering recommends "use as is". 1-1/2" to 4 1/2" clear cover is acceptable for the east face of wall at 5.6 in the fuel pool. DCN to Dwg. C-260, Rev. 3 will be issued incorporating this modification. E.T.C. T. ANORA 1-14-77 [Signature] 1-14-77											
								26. QC Acceptance [Signature] 1/24/77 QC ENGINEER DATE AUTHORIZED INSPECTOR DATE			

BECHTEL

NONCONFORMANCE REPORT (CONT'D)

PAGE 2 OF 2

14. NCR NO. 662

Block 16 continued.

horizontal construction joints have excessive cover. All dowels are bundles of 2 #11 bars.

Q List #1.203.

1 QC Hold Tags applied.
Hold for Engineering Disposition.

10098-2

QC-633

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

1. Project Name Midland						Job No. 7220						19. No. 663		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 A(634.5)e					
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 ☐ DWG ☒ SPEC ☐ OTHER NO. IR NO. C-1.40-115 & 116 C-231, Rev. 12										12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO		13. SKETCH ATTACHED ☐ YES ☒ NO		14. Discovered During ☐ REC-G ☒ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☐ ENG ☐ FLD	
16. Nonconforming Condition: Specification 7220-C-231, Rev. 12, Para. 13.2.4 states..... "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, concrete placement A(634.5)e of 1/6/77 was allowed to drop below 50° for a period of approximately 4 hours. This was caused by a general project breakdown of the L.P. gas delivery system. "Q"-List -- 1.205. Hold for Engineering Disposition. One Hold Tag 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 Paul Vanderhaar				Date 1-12-77		18. Validated By J. Monnelly				Date 1-13-77		25. Disposition Results					
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)																	
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING RESPONSE RECEIVED BY 2/1/77 Use as is. Cure extended approximately 1 day. This drop occurred during the 4th day of cure. This pour was the stairway at the 634.5' elevation of the Auxiliary Building west of "7.8" line at "K" line. Approximately 3 c.y. of D-1c concrete was used. K.L. Smith 1/26/77 J.C. Fine 1/26/77																	
23. Project Engineering Disposition																	
26. QC Acceptance QC ENGINEER _____ DATE _____ AUTHORIZED INSPECTOR _____ DATE _____																	

QC Acceptance	Date
Control No	File No

2. Date 1-7-77

Page of

5. . Placecent in
A (634.5)G

Type Cure Required

17. JCIR NO.

8.	Cure Started
----	--------------

Date 1-6-77

Time: 14:30

MOIST

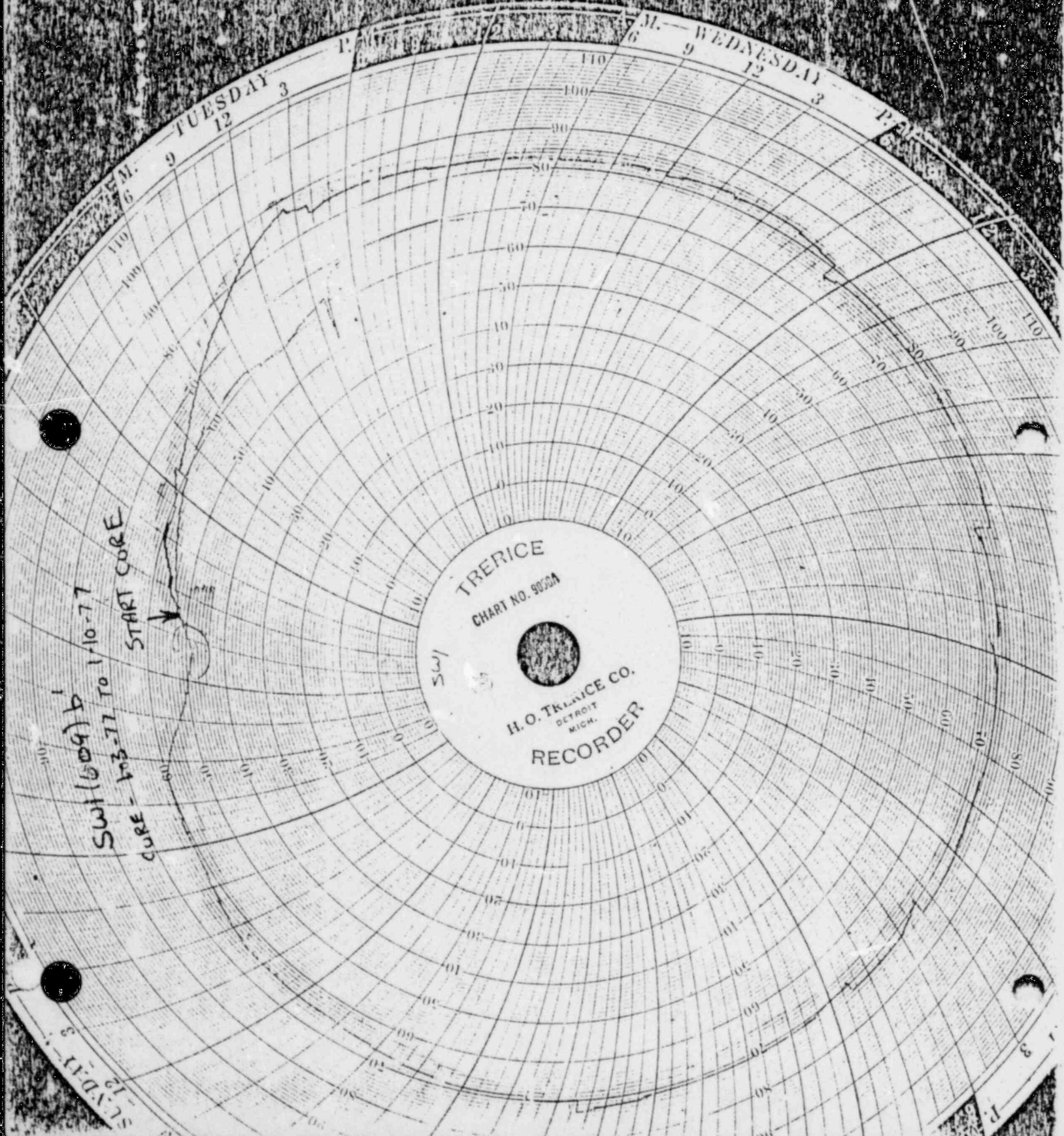
C-140-116

DAILY CURE RECORD						
10.	11.	12.	13.	14.	15.	
Date	Weather	Ambient Temp	Cure Condition	Concrete Surface Temp Cold Weather Only High Low	Corrective Action Taken	QC Engineer
7-77	CLEAR	55°	S	66-58	NONE	P. Vander Veer
8	CLOUDY	62°	S	60-54	"	P. Vander Veer
9	CLEAR	55°	S	62-60	"	P. Vander Veer
10	SNOW	45°	U	44-32	NCR	P. Vander Veer
11	CLOUDY	46°	S	54°-51°	NONE	P. Vander Veer
12	PARTLY CLOUDY		S			

16. Remarks

(D-1c)

NONCONFORMANCE REPORT



TRERICE

CHART NO. 90204

H.O. TRERICE CO.
DETROIT
MICH.

RECORDER

TUESDAY

WEDNESDAY

START CORE

CORE - 103-77 to 110-77

SWI (609) b



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 665	20. Page 1 of 1
2. Unit(s) #1 Cont.	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Water Stop Fire Damage	5. Item Location RE: 16 Exterior Wall, Cont. #1	
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 ☐ DWG ☒ SPEC ☐ OTHER NO. N/A		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC:G ☒ CONST ☐ TEST	15. Equip Furnished By ☐ CLIENT ☐ ENG ☒ FLD
16. Nonconforming Condition: Due to a fire in Auxiliary Building, 0930 Hours, 1/6/77, exposed waterstop was damaged at the following location: Horizontally embedded in the exterior face of #1 Containment Exterior Wall, Elev. 612+, from intersection of Hk line and containment wall to north of Hk line approximately 2'. "Q"-List No. 1.106. Hold for Engineering Disposition. One Hold Tag Applied.				24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS STD W. C. Boor 1/28/77 PROJECT FIELD ENGINEER DATE M. J. Hennolly 1-28-77 PROJECT ENGINEER DATE PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE	
17. Reported By Allen Hancock 1-13-77		18. Validated By M. J. Hennolly 1-13-77		25. Disposition Results	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)					
22. ☒ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
The field will repair the damaged waterstop in accordance with specification C231Q Paragraph 6.4.3 and specification C-232Q Paragraph 3.5. Frank Jones 1/28/77 M. J. Hennolly 1/28/77 Brant 1/26/77					
23. Project Engineering Disposition					
26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR DATE					

BECHTEL

Block 16 continued

Different from the Quality Verification Documentation.

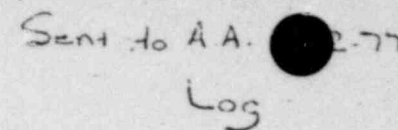
A. Valve stamped: Item 10.1, Tag 10-HRB-BF-2ND-1094-WV, Serial No. DCC62-1-4, Quality Verification Documentation indicates the serial number as DCC62-1-1.

B. Valve stamped: Item 10.7, Tag 10-HRB-BF-1ND-1090-WV, Serial No. DCC62-1-1, Quality Verification Documentation indicates the serial number as DCC62-1-4.

2. Purchase Order 7220-M-132AC, Rev 9, Documentation Submittal states in part: "In submitting the documentation required by the specification and Form C-321-B..." The applicable C-321-B Form requires a certificate of compliance for each valve. Four valves were delivered under Item 6.3, Tag 8-HRB-BF. Contrary to the above, the certificate of Compliance sent indicates 3 valves not 4. Since the Certificate of Compliance does not designate the valves by serial number the status of all four valves is indeterminate.

3. numbers are 4.186 and 4.192. Hold pending final disposition. ^{6 REB} 1-19-77 old tag(s) applied.

NONCONFORMANCE REPORT



Long





NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 669	20. Page 1 of 3			
2. Unit(s) Common	3. Drawing/Part No. 7220-C-211	Rev 4	4. Item Description Missing & Broken Rebar		5. Item Location Aux. Bldg., Elev. 584'-0"			
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 ☒ DWG ☐ SPEC ☐ OTHER		IR NO. N/A NO. N/A	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☒ YES ☐ NO	14. Discovered During ☐ REC'G ☒ CONST ☐ TEST ☐ CLIENT ☐ ENG ☒ FLD			
16. Nonconforming Condition: Item #1: Drawing 7220-C-202 general notes state.... "Slab dowels to match slab reinforcing unless otherwise noted" and Drawing 7220-C-211 indicates #6 bars @ 12" spacing each way for slab spacing. Contrary to the above slab dowels do not match slab reinforcing in place noted as Item #1 on Page 2.					24. Disposition Concurrence			
Item #2: (7) Seven broken dowels were found in the same construction joint. These dowels are shown in Section B-B and C-C, Page 3. Remaining dowel projection are shown on the attached sketch. 1 Hold Tag Applied. "Q"-List #1.203. Hold for Eng'g.					REWORK	REJECT	REPAIR	USE AS IS
					570			
17. Reported By Floyd C. Edley		Date 1/17/77	18. Validated By L.D. Foster		Date 1-17-77	25. Disposition Results		
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)								
22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING								
Missing and broken bars to be cadwelded or drilled and grouted as applicable per project civil standard details.								
23. Project Engineering Disposition						26. QC Acceptance		
						QC ENGINEER		DATE
						AUTHORIZED INSPECTOR		DATE



CALCULATION SHEET

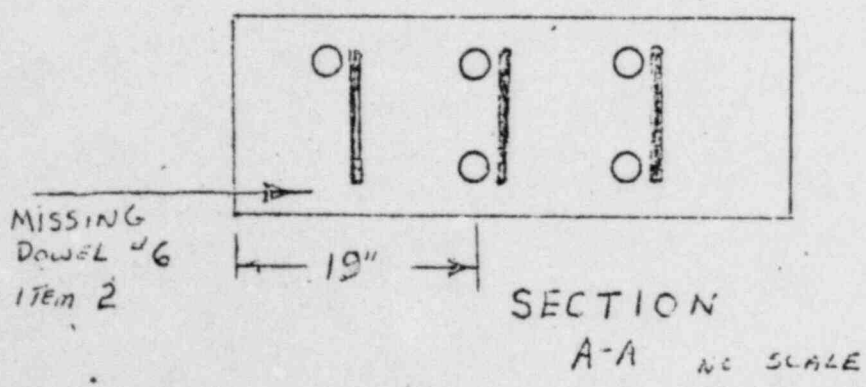
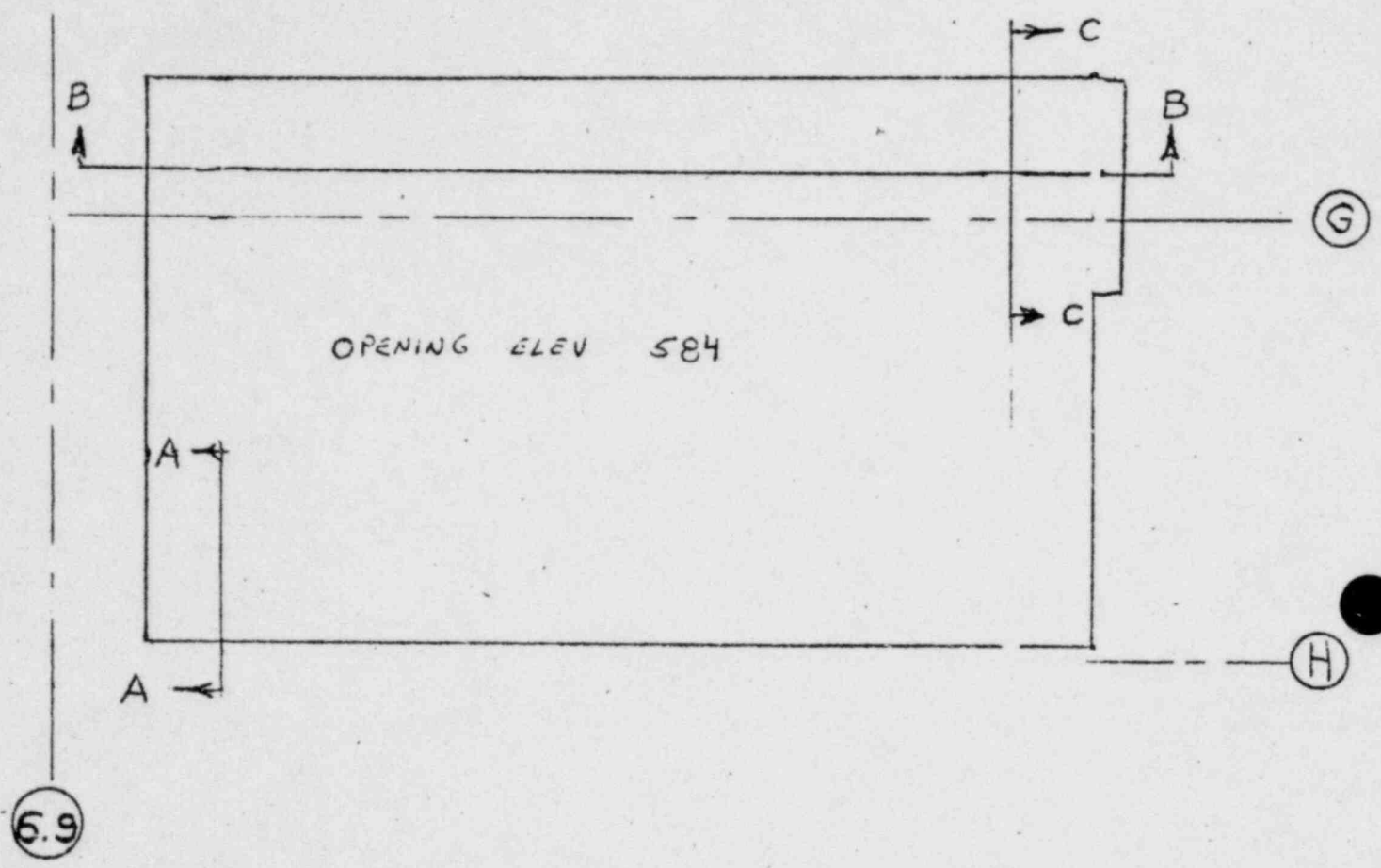
0510 (11-74)

DATE _____

DESIGN BY _____ DATE _____ CHECKED BY _____ SHEET NO. _____

PROJECT _____ JOB NO. _____

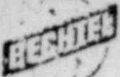
SUBJECT _____ CALCULATION NO. _____ FILE NO. _____



NCR 609 Page 2 of 3

PAGE 2

SECTIONS B-B & C-C
ON PAGE #3

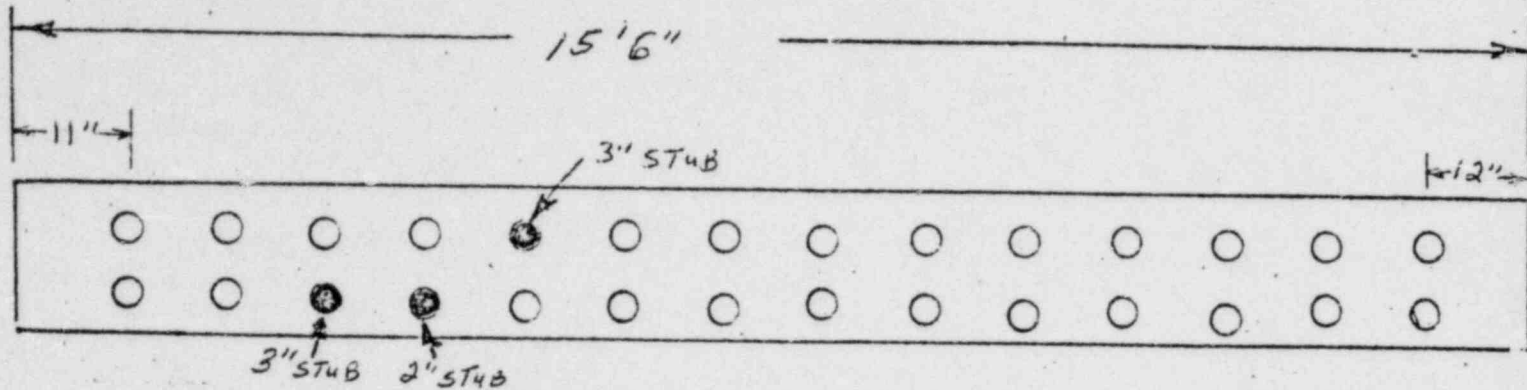


DATE _____

DESIGN BY _____ DATE _____ CHECKED BY _____ SHEET NO. _____

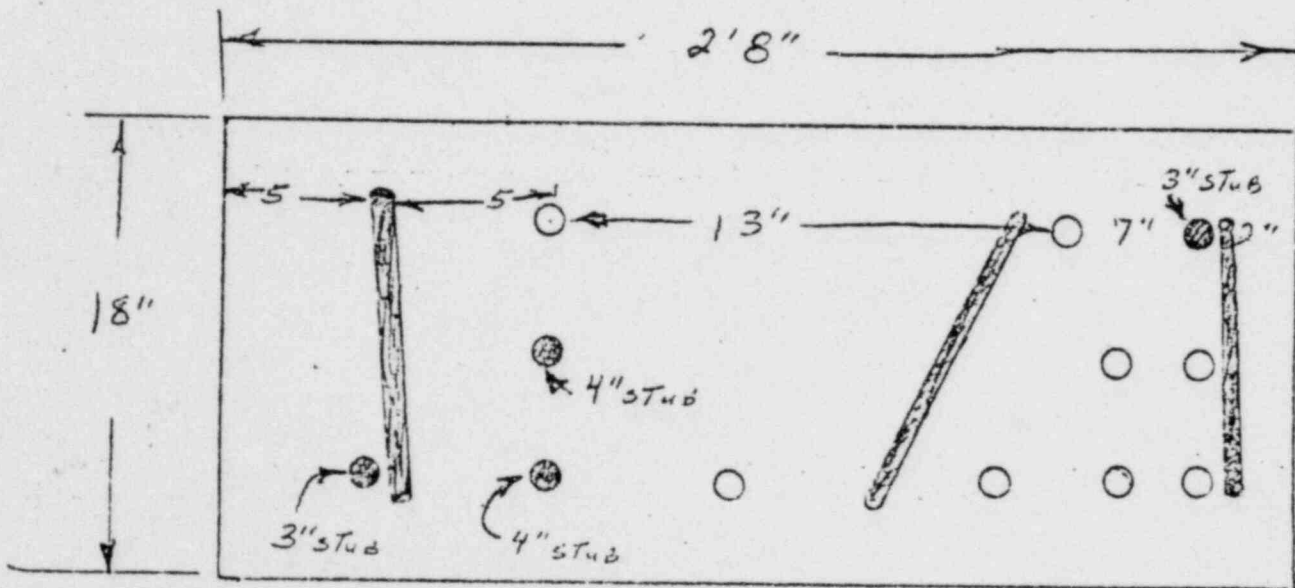
PROJECT _____ JOB NO. _____

SUBJECT _____ CALCULATION NO. _____ FILE NO. _____



SECTION B-B

● BROKEN REBAR #6 NO SCALE



SECTION C-C

● BROKEN DOUELS
NO SCALE



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 670	20. Page 1 of 1
2. Unit(s) Common	3. Drawing/Part No. C-220	Rev 7	4. Item Description Missing Dowel	5. Item Location Aux. Bldg., El. 576'-0"	
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 ☐ DWG ☐ SPEC ☐ OTHER NO. N/A		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO		13. SKETCH ATTACHED ☐ YES ☒ NO	
14. Discovered During ☐ REC'G ☒ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☐ ENG ☒ FLD			
16. Nonconforming Condition: The note on Drawing 7220-C-220 details 3 & 4 calls for #5 rebar on 12" center each way. Contrary to this requirement the spacing at Elev. 576'-0" 5' east of 6.6 and 10' south of F Line has a spacing of 24". 1 Hold Tag Applied. "Q"-List is #1.203. Hold for Engineering Disposition.				27. 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 <i>11/2/77</i>		18. Validated By <i>[Signature]</i>	
		Date <i>11/7/77</i>		25. Disposition Results	
21. Routing ☐ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)					
22. ☐ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
23. Project Engineering Disposition					
26. QC Acceptance					
QC ENGINEER DATE					
AUTHORIZED INSPECTOR DA					

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 671		20. Page 1 of 1	
2. Unit(s) Common	3. Drawing/Part No. C-220	Rev 7	4. Item Description Missing Dowel		5. Item Location Aux. Bldg., El. 576'-0"		
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 ☐ DWG ☐ SPEC ☐ OTHER		IR NO. N/A NO. N/A		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☐ NO	13. SKETCH ATTACHED ☐ YES ☐ NO	14. Discovered During ☐ REC.G ☐ CONST ☐ TEST	15. Equip Furnished By ☐ CLIENT ☐ ENG ☐ FLD
16. Nonconforming Condition: The note on Drawing 7220-C-220 Detail 3 & 4 calls out for #5 rebar each way on 12" centers. Contrary to this requirement the spacing at Elev. 576'-0" on D Line 8' east of 6.6 has a spacing of 24" in two locations. 1 Hold Tag Applied. "Q"-List #1.203. Hold for Engineering Dispositon.						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 J. L. C. Ellis		Date 11/17/77		18. Validated By J. L. C. Ellis		Date 11/17/77	
25. Disposition Results							
21. Routing ☐ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)							
22. ☐ Field Engineering Disposition ☐ 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. 677		20. Page 1 of 1	
2. Unit(s) Common		3. Drawing/Part No. A-52		Rev 2		4. Item Description Broken Block Wall Dowels						5. Item Location Aux. Bldg, El. 599'-0"			
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 ☐ DWG ☐ SPEC ☐ OTHER NO.						IR NO. N/A		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO		13. SKETCH ATTACHED ☐ YES ☒ NO		14. Discovered During ☐ REC'G ☐ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☐ ENG ☒ FLD	
16. Nonconforming Condition: The note on Drawing 7220-A-52 states.... Block walls 8" to 16" thick will use #5 rebar dowels at 16" spacing. Contrary to this the block wall shown on Drawing 7220-A-203 at 6' east of 7.9 and 4' north of B Line at Elev. 599'-0" has a broken dowel at the above location. The remaining dowel projection is approx. 2" beyond the construction joint. One Hold Tag Applied. "Q"-List is #1.203. Hold for Engineering 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 F. L. C. [Signature]				Date 11/2/77		18. Validated By [Signature]				Date 1-11-77		25. Disposition Results			
21. Routing ☐ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)															
22. ☐ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING															
23. Project Engineering Disposition															
26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR DA															

NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 673		20. Page 1 of 1	
2. Unit(s) Common	3. Drawing/Part No. A-52	Rev 2	4. Item Description Broken Block Wall Dowel		5. Item Location Aux. Bldg. Elev. 599'-0"		
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 ☐ DWG ☐ SPEC ☐ OTHER		IR NO. N/A NO. N/A		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO		14. Discovered During ☐ REC:G ☐ CONST ☐ TEST ☐ CLIENT ☐ ENG ☒ FLD
16. Nonconforming Condition: The note on Drawing 7220-A-52 states.... "Block walls 8" to 36" thick will use #5 rebar dowels @ 16" spacing." Contrary to this, the wall shown on Drawing 7220-A-203 7' east of 5.1 and 2' south of A Line at Elev. 599'-0" has a broken dowel at the above location. The remaining dowel projection is approximately 1" beyond the construction joints. 1 Hold Tag Applied. "Q"-List is #1.203. Hold for Engineering 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 J. Hunt C. 8/20/77		Date 11/17/77		18. Validated By [Signature]		Date 11/17/77	
21. Routing ☐ TO FIELD ENGINEERING		☐ TO OTHERS (SPECIFY)					
22. ☒ Field Engineering Disposition		☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING					
23. Project Engineering Disposition							
26. QC Acceptance							
QC ENGINEER DATE							
AUTHORIZED INSPECTOR DATE							

NONCONFORMANCE REPORT

Block 16 continued

verification documentation specifies the material as ASME SA 234 WPC. Contrary to the above, the lining class sheet, 7220-M-491, Rev 10, do not list ASME SA 234 WPC as an acceptable fitting for Nuclear Class Piping 1, 2 or 3.

2. Purchase Order 7220-M-491, Rev 7, Engineering Department initial states in part: "In submitting the documentation required by the attached specifications and Form C-301-D..." Contrary to the above, the C-301-D Form for these submittals has not been received.

"C" number is indeterminate. Hold pending final disposition. ⁴ 4 hold tag(s) applied.

10098-2

QC-G33

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

Block 16 continued

May continue work in accord with notes - revise and resubmit drawings.

Sketch

AK MO

Shop Order

1-620-5-18

1A-1MEB-1-200

E-NE-103

"C" number is 4.100. Hold pending final disposition.

Hold tag(s) applied.

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



NONCONFORMANCE REPORT

Log to AA 26-77

1. Project Name Midland Nuclear Power Plant		Job No. 7220		19. No. 679		20. Page 1 of 2	
2. Unit(s)		3. Drawing/Part No. N/A		Rev N/A		4. Item Description Compressive Strength Cylinders	
5. Item Location On-Site Testing 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 U.S. Testing Company		11. Inspection Criteria ☐ DWG ☒ SPEC ☐ OTHER		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	
13. SKETCH ATTACHED ☐ YES ☒ NO		14. Discovered During ☐ REC:G ☒ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☐ ENG ☒ FLD		16. Nonconforming Condition: Specification 7220-C-208, Para. 7.3.2 states.... "Cylinders shall be made, cured and tested in accordance with ASTM C-31 & C-39." Further, ASTM C-31, Para. 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 80°F." Contrary to the above, the record cylinder set #1304 for Pour #C(652.75)b' cast 12/23/76 was initially cured at 58° to 75°F, thereby not meeting the minimum requirement. "O"-List #1.105. No Hold Tags Applied.	
17. Reported By [Signature] 1/21/77		18. Validated By [Signature] 1-24-77		24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS		25. Disposition Results	
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)		22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING RESPONSE REQUIRED BY 3-1-77		23. Project Engineering Disposition		26. QC Acceptance	
Use as is. Cylinders represent the best data available. Two degree low temperature will have a negligible effect on eventual strength development of specimens. [Signature] 1/26/77 [Signature] 1/26/77						QC ENGINEER DATE	
						AUTHORIZED INSPECTOR DATE	

old for Engineering Disposition.

10098-2

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Pink Copy - PQAE
Golden Copy - QC

QC 633



NONCONFORMANCE REPORT

1. Project Name <u>Midland</u>		Job No. <u>7220</u>		19. No. <u>580</u>	20. Page <u>1</u> of <u>2</u>
2. Unit(s) <u>Units 1 & 2</u>	3. Drawing/Part No. <u>See Block 16</u>	Rev <u>N/A</u>	4. Item Description <u>Shon Fabricated Pipe Snools</u>	5. Item Location <u>Poseyville Laydown Area</u>	
6. P.O. Or Spec. No. <u>7220-MICHA-AC Rev 7</u>	7. Serial No. <u>See Block 16</u>	8. Replacement Part P/N <u>N/A</u> REV <u> </u>	9. Source <u>Supplier</u>	10. Contractor/Supplier <u>ITT Grinnell, Kernersville, N.C.</u>	
11. Inspection Criteria ☐ OWG ☒ SPEC ☐ OTHER NO. <u>M201 Rev 7</u>		IR NO. <u>R-1.00-5584662</u>	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☐ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC'G ☐ CONST ☐ TEST
15. Equip Furnished By ☐ CLIENT ☐ ENG ☐ FLD			16. Nonconforming Condition: <u>Specification 7220-M201, 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."</u> <u>Contrary to the above, the pipe snools 138R-6-8638-14-3 (Drawing MP-04-28X Submittal 2</u>		
17. Reported By <u>[Signature]</u> Date <u>1-21-77</u>			18. Validated By <u>[Signature]</u> Date <u>1-24-77</u>		
21. Routing ☐ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY) <u>7</u>			24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS PROJECT FIELD ENGINEER DATE PROJECT ENGINEER DATE PROJECT CONSTR QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		
22. ☐ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING			25. Disposition Results		
23. Project Engineering Disposition			26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		

NONCONFORMANCE REPORT (CONT'D)

PAGE 2 OF 2

14 NOV 68

Block 16 continued

72-2-1.00-658), 2532-14-5634-1-2 (Drawing 72-6-87X, Submittal 1, 72-2-1.00-658), 2532-14-5634-1-5 (Drawing 72-6-87X, Submittal 1, 72-2-1.00-658), 2532-14-5634-1-2 (Drawing 72-6-75X, Submittal 1, 72-2-1.00-658) and 2532-14-5634-1-5 (Drawing 72-6-75X, Submittal 1, 72-2-1.00-658) were delivered with no designation inside the woods. This wood 2532-14-5634-1-2 has approximately 15% coverage of scale rust and 80% coverage of finish on the inside wall of the wood. The other above mentioned woods were dry and clean inside.

"Q" number for pine wood 1212-6-9633-14-3 is 4.283 and for all the other woods 4.312. Hold pending final disposition. Hold 2532-14-5634-1-2

10088-2

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 Goldenrod Copy - QC

QC-613



NONCONFORMANCE REPORT

1. Project Name Midland Nuclear Plant		Job No. 7220		19. No. 681	20. Page 1 of 1
2. Unit(s) Cont. #2	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Letdown Cooler Wall -- 3rd Lift	5. Item Location El. 613+ To 624+	
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 ☐ DWG ☒ SPEC ☐ OTHER		IR NO. N/A NO. N/A	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC:G ☒ CONST ☐ TEST
15. Equip Furnished By ☐ CLIENT ☐ ENG ☒ FLD			16. Nonconforming Condition: Due to a fire in Cont. #2 approx. 0300 hrs. 1/21/77, damage was sustained to the concrete on the northwest corner of the 3rd lift of the Letdown Cooler Walls (El. +613+ To El. +624+). Subject area involved is approx. 4' wide, from top to bottom of lift, west end of north face of north wall. Age of concrete = 7 Days, 9 Hours +. Visible damage includes spawled area about 1' wide x 3' high starting at bottom of lift, scorched (smoked) area is from about 2' wide at bottom to about 1' wide at top of lift. Hold for Eng. Disp. 1 Hold Tag Applied. "Q" List #1.105.		
17. Reported By Allen Hemack 1-24-77			18. Validated By Ronally 1-24-77		
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)			24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS X 572		
22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING			25. Disposition Results		
Depth of the spawled area is approx. 1" max. The spawled areas as mentioned above shall be chipped to sound concrete and repaired in accordance with Section 17.0 of Spec 7220-C-231. The rest of the affected area shall be visually inspected for cracked or unsound concrete and repaired accordingly. All visible damage due to smoke shall be removed. cont. page 2			26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		
23. Project Engineering Disposition					

Block 22 continued.

Work above the affected area may proceed.

W. J. 11/20/68 1/20/68

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



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 7220	20. Page 1 of 1								
2. Unit(s) Common	3. Drawing/Part No. C-141	Rev 3	4. Item Description Concrete Construction Joints	5. Item Location Aux. Aldg., El. 614'									
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 ☐ DWG ☐ SPEC ☐ OTHER NO. C-231, Rev. 12		12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC:G ☐ CONST ☐ TEST	15. Equip Furnished By ☐ CLIENT ☐ ENG ☐ FLD								
16. Nonconforming Condition: Drawing C-141, Rev. 3 Detail #3, requires 2 3/8" recess in the slab for placement of grout after installation of channel embeds. At several locations between H and Kc lines and S.3 & 7.3 lines from El. 613'-9" to El. 614'-0" the grout topping did not properly bond to the construction joint, as evidenced by a hollow drummy sound when the grout is struck with a hammer. "Q"-List #1.205. 1 Hold Tag Applied. Hold for Engineering Disposition.				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></td></tr></table>		REWORK	REJECT	REPAIR	USE AS IS				
REWORK	REJECT	REPAIR	USE AS IS										
17. Reported By <i>[Signature]</i> Date 1/25/77		18. Validated By <i>[Signature]</i> Date 1.25-77		25. Disposition Results									
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)													
22. ☐ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING													
23. Project Engineering Disposition													
26. QC Acceptance <table border="1"><tr><td>QC ENGINEER</td><td>DATE</td></tr><tr><td>AUTHORIZED INSPECTOR</td><td></td></tr></table>						QC ENGINEER	DATE	AUTHORIZED INSPECTOR					
QC ENGINEER	DATE												
AUTHORIZED INSPECTOR													



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. 683		20. 1 of 1													
2. Unit(s) Aux Bldg		3. Drawing/ P&ID 7220-M-613 Sht. 6		Rev 4		4. Item Description Pipe spool		5. Item Location Locked Area #1											
6. P.O. Or Spec No. 7220-M-104A		7. Serial No. MR-63-21		8. Replacement Part P/N N/A REV		9. Source Vendor		10. Contractor/Supplier ITT Grinnell, Kernersville											
11. Inspection Criteria ☒ DWG. ☐ SPEC ☐ OTHER		IR NO. 7220-M-613 Sht 6		12. ASME AUTHORIZED INSPECTION REQ'D ☒ YES ☐ NO		13. SKETCH ATTACHED ☐ YES ☒ NO		14. Discovered During ☐ REC'G ☒ CONST ☐ TEST		15. Equip Furnished By ☐ CLIENT ☒ ENG ☐ FLD									
16. Nonconforming Condition: Piping isometric 7220-M-613 Sht. 6, Rev. 4 indicates that Grinnell Register MR-63-21 has a spool number of 2-HCB-21-S613-6-2. Two pages of the four Code Data Sheet and the six NDE reports for MR-63-21 identify the spool number as 2-HCB-21-S613-6-1. Q List #4.134. One QC Hold Tag applied. Hold for Engineering Disposition.								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></td></tr></table> PROJECT FIELD ENGINEER _____ DATE _____ PROJECT ENGINEER _____ DATE _____ PROJECT CONSTR QC ENGINEER _____ DATE _____ AUTHORIZED INSPECTOR _____ DATE _____				REWORK	REJECT	REPAIR	USE AS IS				
REWORK	REJECT	REPAIR	USE AS IS																
17. Reported By <i>James Miller</i>		Date 1-28-77		18. Validated By <i>W. J. Grinnell</i>		Date 1-28-77		25. Disposition Results											
21. Routing ☒ TO FIELD ENGINEERING		☐ TO OTHERS (SPECIFY)																	
22. ☐ Field Engineering Disposition		☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Route this NCR to Project Engineering. <i>Response required by 2/1/77</i> Field Engineering recommends this spool be rejected. In addition to incorrect documenta- tion the code data plate identifies this spool as 2HCB-21-S613-6-1 (MR-63-21), there- fore, this spool is not suitable for surplus material. Field requests Project Engineer- ing notify ITT Grinnell to fabricate new spool 2HCB-21-S613-6-2R (MR-63-21) in accord- ance with drawing M-613 Sh. 6 Rev. 4. <i>W. J. Grinnell 2-1-77</i> <i>AS P.I.E. 2-1-77</i>																	
23. Project Engineering Disposition																			
26. QC Acceptance QC ENGINEER _____ DATE _____ AUTHORIZED INSPECTOR _____ DATE _____																			



NONCONFORMANCE REPORT

1. Project Name Midland Nuclear Plant		Job No. 7220		19. No. 684	20. Page 1 of 2
2. Unit(s) N/A	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Liner Plate	5. Item Location Cont. #1 Elev. 688'-6" Azimuth 148°	
6. P.O. Or Spec No. C-111, Rev. 10	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 ☐ DWG ☒ SPEC ☐ OTHER		IR NO. C-7.00-3 NO. C-111, Rev. 10	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC:G ☒ CONST ☐ TEST
15. Equip Furnished By ☐ CLIENT ☐ ENG ☒ FLD				16. Nonconforming Condition: Specification 7220-C-111, Rev. 10, Appendix B, Sec. 2.4 states in part.... "Pits and gouges with a deviation from plane or depth of cut greater than .06 inches must be recorded." At the referenced location, there is a pit approx. .125 inches deep and approx. .375 inches across. Also, Sec. 8.1.3 states, "A 14" long template curved to the required radius and placed against the completed surface of the shell shall not show more than the 1/8" inward deviations and 1/4" outward deviation from the theoretical curve between angle anchors." Contrary to the above,	
17. Reported By Stephen C. Hill		Date 1-28-77	18. Validated By [Signature]		Date 1-28-77
21. Routing ☒ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)		24. Disposition Concurrency REWORK ☒ REJECT ☐ REPAIR ☐ USE AS IS ☐ PROJECT FIELD ENGINEER [Signature] DATE 2-1-77 PROJECT ENGINEER [Signature] DATE 2-2-77 PROJECT CONSTR QC ENGINEER [Signature] DATE AUTHORIZED INSPECTOR [Signature] DATE			
22. ☒ Field Engineering Disposition ☐ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Rework Repair by standard procedure in accordance with spec. 7220-C-111 Rev. 10, Appendix 'B'. Field Engineering Disposition [Signature] 2/1/77 [Signature] 2/1/77 [Signature] 2/1/77		25. Disposition Results			
23. Project Engineering Disposition		26. QC Acceptance QC ENGINEER [Signature] DATE AUTHORIZED INSPECTOR [Signature] DATE			

SECRET

BL 16 CONTINUED:

NONCONFORMANCE REPORT (CONT'D)

PAGE 2 OF 2

14. NCR NO. 134

the outward deviation noted is approx. .5 inches. "Q"-List #1.109. Hold for Engineering Disposition. 1 Hold Tag Applied.

10088-2

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Canary Co - Field Engineer
Pink Copy - POAE
Goldenrod Copy - QC

QC-G33



NONCONFORMANCE REPORT

1. Project Name Midland		Job No. 7220		19. No. 685	20. Page 1 of 1
2. Unit(s) N/A	3. Drawing/Part No. N/A	Rev N/A	4. Item Description Admixture Batching Tolerances	5. Item Location Placement #SWR(598.5)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	9. Source Subcontractor	10. Contractor/Supplier Champion, Inc.	
11. Inspection Criteria ☐ DWG ☒ SPEC ☐ OTHER		IR NO. C-1.30-102 NO. C-230, Rev. 8	12. ASME AUTHORIZED INSPECTION REQ'D ☐ YES ☒ NO	13. SKETCH ATTACHED ☐ YES ☒ NO	14. Discovered During ☐ REC'G ☒ CONST ☐ TEST
15. Equip Furnished By ☐ CLIENT ☐ ENG ☐ FLD			16. Nonconforming Condition: Specification 7220-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 #12985 representing approximately 2 c.y. of concrete grout from placement SWR(598.5)a of 1/27/77 was placed with the flyash content 1.5 pounds over the maximum allowable weight. 1 Hold Tag Applied. "Q"-List #1.505. Hold for Engineering Disposition.		
17. Reported By Paul W. [Signature] Date 1-28-77			18. Validated By [Signature] Date 1-28-77		
21. Routing ☐ TO FIELD ENGINEERING ☐ TO OTHERS (SPECIFY)			24. Disposition Concurrence REWORK REJECT REPAIR USE AS IS		
22. ☐ Field Engineering Disposition ☒ FIELD ENGINEERING RECOMMENDED DISPOSITION TO PROJECT ENGINEERING Use as is. [Signature] 2/1/77 [Signature] 2/1/77			25. Disposition Results		
23. Project Engineering Disposition			26. QC Acceptance QC ENGINEER DATE AUTHORIZED INSPECTOR DATE		

QUALITY ASSURANCE DISCREPANCY REPORT

SD-5

4. ISSUE DATE

10-15-76

1. PROJECT/DEPT./CONTRACTOR

2. POINT OF ORIGIN

☒ FIELD

☐ OFFICE

5. QAD PREPARED BY:

J. Fick

6. WORK PLAN DATE

7. CHECKLIST ITEM

8. WHERE FOUND

9. DISCUSSED WITH

N/A

N/A

C.C. Venable

T. Lieb/G. Knoll

10. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.

Spec. 7220-C-208 Rev. 7 Paragraph 7.3.2

11. QUOTATION

"... two cylinders shall be tested at seven (7) days and two at ninety (90) days."

ROUTE

INT

AD

LQAE

CIVIL

ELEC.

MECH.

PIPING

FILE

RECEIVED

JAN 19 1977

DECHTEL POWER CORP.

JOB 7220

PER

12. DISCREPANCY DESCRIPTION

Contrary to the above, cylinders for pour #A(630.25)b' were broke at 88 days rather than specified 90 days without prior approval of Project Engineering. It should be noted that the design mix, No. D-2 requires a minimum strength of 5000 psi. at 90 days. This mix requirement was met at the 28 day breaks.

13. RECOMMENDED CORRECTIVE ACTION:

1) Determine each instance where cylinder were not tested at the specified ages. 2) Present this information to P.E. for their evaluation. 3) Obtain approval from P.E. to break cylinder at alternate ages when the 90 day break falls on holidays or weekends.

14. SCHEDULED COMPLETION

DATE 11-15-76

15. RESPONSIBILITY FOR CORRECTIVE ACTION:

PFQCC

16. CORRECTIVE ACTION TAKEN

The cylinders for concrete placement A(630.25)b' were inadvertently broken at 87 days.

It should be noted that all the cylinders broken at 87 days exceeded the 90 day f'c.

The recommended corrective actions No. 1 thru 3 are answered by FCR C-252.

17. DATE SUBMITTED

1-18-77

18. SUBMITTED BY RESPONSIBLE AUTHORITY

Monnelly PFQCC

19. CORRECTIVE ACTION VERIFIED BY

Mc *John H. Fick*

20. DATE

1-20-77



FIELD CHANGE REQUEST

1. PAGE 1 OF 1
1.105, 1.205, 1.305
Q No. 1.405, 1.505

2. No. C-252

PROJECT NO. 7220

MO DAY YR
DATE 1 14 754. REF. ~~XXXXXX~~ SPEC.

REV. 3

5. TITLE

Specification 7220-C-208

Materials Testing Services

6. DESIGN ORIGIN:

ENGRG ☒VENDOR ☐ (IDENTIFY)

NAME

7. EXISTING CONDITION:

Paragraph 7.3.2 states in part "Two cylinders shall be tested at 7 days, two at 28 days and two at 90 days."

8. CHANGE REQUEST / SKETCH

Request sentence be amended to read: "Two cylinders shall be tested at 7 days, two at 28 days and two at 90 days unless otherwise directed by the contractor". Basis for this request is that the field wishes the option to test 90 day cylinders, which are due on weekends or holidays, one or two days early. Cylinders will not be broken earlier than 88 days and this proposal will not apply to trial mix designs.

Testing at an earlier date will have a negligible affect on the strength of the test cylinders. As of this date, the average strength of structural 90 day cylinders are as follows:

B-1	=	5550 psi	=	185% of f'c
B-2	=	4840 psi	=	161% of f'c
C-1	=	6605 psi	=	165% of f'c
C-2	=	6360 psi	=	159% of f'c
D-1	=	7040 psi	=	141% of f'c
D-2	=	6690 psi	=	134% of f'c
E-1	=	7420 psi	=	124% of f'c

Uncontrolled

RECEIVED

FEB 24 1975

BECHTEL POWER CORP.

JOB 7220

PER

10. REVIEWED BY:

Date

CIVIL

ELECT.

MECH.

WELDING

Richard Prote
Eric Vegas
Ky Pulite
S. Hicks

1-15-75
1-15-75
1-15-75
1-15-75

9.

PREPARED BY:

11. APPROVAL OF FIELD DISPOSITION:

JC Valenzuela
Project Field Engineer

1-15-75
Date

12. PROJECT ENG'R'G APPROVAL: YES ☐ NO ☒

PROJ. ENGR.

Date: *2-21-75*

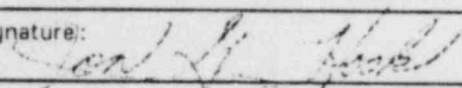
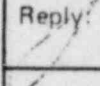
REMARKS: *Specification change is not required. Request is in accordance with good engineering judgement, conforms to standard practice, and is permitted by current working.*

WHITE - PRINT COORDINATOR
CANARY - FIELD ENGR.

2/20/75 *RLR 2-20-75*

QC - 2 FCR
REV. 2-1-72

QUALITY ACTION REQUEST

From: J. G. Hook		Site OA		Midland Job 7220		①
To: J. Newnen	② Control Document ref.: 7220-C 731 Rev. 12	③	QAR Ident. No.: SD-23		④	
Action Requested: QAR-SD-8 describes several instances in which NCRs were written because of						⑤
inadequate curing of concrete. The reply to SD-8 stated that due to initial						
start-up of cold weather concrete adequate measures had not been taken. The						
response also stated that, "The following steps have been taken to preclude						
nonconforming curing conditions."						
Since SD-8 was closed on Nov. 29, 1976 there have been four more nonconformance						
reports written describing inadequate curing. These are NCRs 620, 630, 646 and						
647.						
The worst condition is described in NCR-646 in which a portion of the concrete						
dropped to 33°F. SEE PAGE 2						
Signature: 	⑥	Date: 1-6-77	⑦	Reply Requested by: 2-4-77	⑧	
Reply: 						⑨
Signature:		⑩	Date:		⑪	
Action Verified:		⑫	Date:		⑬	

8/2/74

WHITE — Return to sender

CANARY — Addressee's file

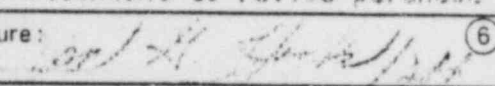
PINK — Sender's file

BPC 20877
G1001649-05

The corrective actions outlined by Field Engineering in their response to SD-8 are ineffective in that there has been repeated NCRs written on curing of concrete. In addition, the two FCRs mentioned in the response to SD-8 have not been responded to by Project Engineering; these are FCR-C-558 and C-562.

Take additional actions to assure proper curing of concrete during winter conditions are maintained or obtain approval of the referenced FCRs which will eliminate most of the nonconformances.

QUALITY ACTION REQUEST

From: Jon G. Hook		Site QA Midland Project		Job 7220		①
To: J. Connolly/J. Newjen		②	Control Document ref.: Project Q-list	③	QAR Ident. No.: 20-74	④
Action Requested: The project summary Q-list indicates that structural backfill is Q-listed (identity No. 1.004). The Q-listed bulk material list indicates that structural backfill material is to be receipt inspected and sample tests performed. Contrary to the above; purchase order 7220-F-3028 for Q-listed structural backfill states: "This P.O. contains no Q-listed material" and all of the structural backfill material received to date has not been receipt inspected by QC in accordance with SE/PSP G-5.1 Rev. 3.						⑤
RECOMMENDED CORRECTIVE ACTION: 1) QC to identify all the structural backfill material located in the stockpile and in place, as nonconforming. 2) Project Superintendent to revise purchase order 7220-F-3028 and FMR C-320 to include						
Signature: 		⑥	Date: 1/31/77	⑦	Reply Requested by: 3/30/77	⑧
Reply:						⑨
Signature:				⑩	Date:	⑪
Action Verified:				⑫	Date:	⑬

8/2/74

WHITE — Return to sender

CANARY — Addressee's file

PINK — Sender's file

BPC-20877
G1001649-05

RECOMMENDED

CORRECTIVE ACTION: continued

requirements that are found on the bulk items list. 3) Provide assurance by review, or some other means, that no other Q-list material has been purchased as Non-Q. Measures taken to provide such assurance shall be documented. 4) Based on the results of number 3 provide additional training or procedural revisions as may be necessary to preclude repetition of the discrepancies identified.

JAN 28 1977
BECHTEL POWER CORP.
JOB 7220

PER

WHITE - Return to sender

CANARY -- Address ee's file

PINK - Spider's file

ACTION REQUESTED BLOCK:

inch fillet weld on the top, bottom, and one edge of piece 3, while the actual weld was approximately 1/2 inch which filled the entire space between the edges of piece 3 and the web of piece 2. This weld incorporated the flange edge and top and bottom of piece 2.

Conversation with Project Engineering on 11/24/76 indicated that the two welds in question were acceptable even though they were not identical to the welds specified on the drawings.

Based on the above comments the following actions are requested:

- 1) Project Engineering should evaluate the need for more definition and direction on acceptable weld limits for hanger welding (and other structural welding) and provide this information to construction using normal program methods.
- 2) Based on the information provided by Project Engineering, Quality Control should evaluate the acceptability of hanger welds previously accepted and evaluate the acceptance criteria used to accept these welds. This criteria should be revised if necessary.

[illegible]

QUALITY ACTION REQUEST

From: G. L. Richardson		Site QA		Midland Job 7220		①																											
To: R. Castleberry/ L. Connolly		② Control Document ref.: Applicable Drawings	③ QAR Ident. No.: SD-14			④																											
Action Requested: Described below are two conditions where welding of Hanger Assemblies are not as shown on the design drawings in that extra welds have been provided or the weld is excessive in size. Limits for weld sizes could not be identified by the field forces other than minimum limits.						⑤																											
Hanger 12-2HCB-5-H4 is questionable because the weld which connects pieces 2 and 3, (Shop Weld #1 on Grinnell drawing 2-613-4-22) is welded all the way around while the drawing only shows fillet welds on the outside of the flanges and both sides of the web.																																	
Hanger 24-1HCB-2-H6 is questionable because the field weld which joins pieces No. 2 and 3 (Grinnell drawing 1-610-3-6) is not made in accordance with the detail shown on the drawing. The typical end connection detail specifies a 3/16 (CONTINUED)																																	
Signature: <i>G. L. Richardson</i>		⑥ Date: 11/29/76	⑦ Reply Requested by: 12-29-76			⑧																											
Reply: Based on the Project Engineering response to item one, no evaluation of previously accepted welds is required. The criteria used to accept previous welds is identical to that described in Project Engineering's response. Quality Control will continue to use this criteria for weld acceptance.						⑨																											
<table border="1"> <tr> <td>QA ROUTE</td> <td>HPO</td> <td>✓</td> <td rowspan="5"> RECEIVED JAN 07 1977 BECHTEL POWER CORP JOB 7220 </td> </tr> <tr> <td>LOAE</td> <td></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>✓</td> <td>⑩</td> </tr> <tr> <td colspan="2">Signature: <i>L. Connolly</i></td> <td>⑪ Date: 1-6-77</td> <td colspan="2"></td> <td>⑪</td> </tr> <tr> <td colspan="2">Action Verified: <i>Brent T. Skyles</i></td> <td>⑫ Date: 1/28/77</td> <td colspan="2"></td> <td>⑬</td> </tr> </table>						QA ROUTE	HPO	✓	RECEIVED JAN 07 1977 BECHTEL POWER CORP JOB 7220	LOAE			CIVIL			ELEC			MECH.	✓	⑩	Signature: <i>L. Connolly</i>		⑪ Date: 1-6-77			⑪	Action Verified: <i>Brent T. Skyles</i>		⑫ Date: 1/28/77			⑬
						QA ROUTE	HPO	✓		RECEIVED JAN 07 1977 BECHTEL POWER CORP JOB 7220																							
						LOAE																											
						CIVIL																											
						ELEC																											
MECH.	✓	⑩																															
Signature: <i>L. Connolly</i>		⑪ Date: 1-6-77			⑪																												
Action Verified: <i>Brent T. Skyles</i>		⑫ Date: 1/28/77			⑬																												

8/2/74

WHITE - Return to sender

CANARY - Addressee's file

PINK - Sender's file

BPC 20877
G1001649-05

ACTION REQUESTED BLOCK:

inch fillet weld on the top, bottom, and one edge of piece 3, while the actual weld was approximately 1/2 inch which filled the entire space between the edges of piece 3 and the web of piece 2. This weld incorporated the flange edge and top and bottom of piece 2.

Conversation with Project Engineering on 11/24/76 indicated that the two welds in question were acceptable even though they were not identical to the welds specified on the drawings.

Based on the above comments the following actions are requested:

- 1) Project Engineering should evaluate the need for more definition and direction on acceptable weld limits for hanger welding (and other structural welding) and provide this information to construction using normal program methods.
- 2) Based on the information provided by Project Engineering, Quality Control should evaluate the acceptability of hanger welds previously accepted and evaluate the acceptance criteria used to accept these welds. This criteria should be revised if necessary.

QUALITY ACTION REQUEST

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DEC 2 1976
DECHTEL POWER CORP.

From: B. T. Stojkov		QA Midland	Job 7220	①
To: J. Newgen	② Control Document ref.: FPG-16, Rev. 2	③ QAR Ident. No.: SD-16		④
Action Requested: FPG-16 "Describes the program for maintenance of applicable items not in the storage program that require maintenance or inspection activities." It also provides for the exemption of specific material or equipment "When other procedures assure that adequate maintenance is provided."				
Contrary to the program for in-place maintenance requirements describe in FPG-16, no provision has been made for the protection of the Q-list Anchor Bolts installed in Containments 1 & 2 for the Reactor Vessel and Steam Generators.				
It is requested that either a F-10 Form per FPG-16 or some other procedure be prepared for the protection of the Reactor Vessel and Steam Generator Anchor Bolts and the requirements contained therein be carried out.				
Signature: Brent T. Stojkov	⑥ Date: 11-23-76	⑦ Reply Requested by: 12-22-76		⑧
Rep v: Protection will be provided for the anchor bolts in the following manner:				
1) Bolts shall be coated with Rust-Ban 326				
2) After Rust-Ban application a pipe sleeve shall be placed over the bolt.				
The above protective measures shall be directed by the Containment Coordinator through normal channels of work direction within the Containment Area.				
An F-10 form will be issued establishing the above protection and will outline a quarterly inspection of the pipe sleeve to assure its maintenance of the pipe.				
Signature: A. J. [Signature]	⑩ Date: 11/17/77			⑪
Action Verified: Brent T. Stojkov	⑫ Date: 1/24/77			⑬

8/2/74

WHITE - Return to sender

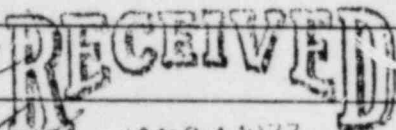
CANARY - Addressee's file

PINK - Sender's file

BPC-20877
G1001649-05

QUALITY ACTION REQUEST

QA	ROUTE	LOG	CIVIL	ELEC.	MECH.	PLNG	FILE

From: J. G. Hook		Site QA		Midland Job 7220	
To: J. P. Connolly	(2) Control Document ref.: ASTM C-31	(3) QAR Ident. No.: SD-19	(4)		
Action Requested: (5)					
A check was conducted by QA on the curing of field cylinders made from pour SWI (592.0)a on the morning of 11/18/76. QA was present when the cylinders were picked up by U.S. Testing and taken to the lab. The high-low thermometer which records temperature inside the field curing box registered a low of 23°F and a high of 85°F for the 20 hour period in which the cylinders were curing in the field. The Lab Technician (R. Lubbers) pointed these temperature limits out to the QAE and commented on their spread and stated he felt that the thermometer may not have been properly set prior to placing it in the box. Subsequent review of the applicable test records noted that the curing temperatures for the cylinders have been recorded as 45°F minimum and 78°F maximum with no indication of the actual readings. (OVER)					
Signature: <i>Jon H. Hook</i>	(6) Date: 12-8-76	(7) Reply Requested by: 12-31-76	(8)		
Reply: (9)					
QC researched the apparent discrepancy in recording the curing temperatures. The Lab Technician could not remember the exact circumstances, since this was brought to his attention two weeks after the temperatures were recorded. However, QC spoke to the Lab Chief about the seriousness of such discrepancies. The Lab Chief held a training meeting on 12/3/76 and emphasized the necessity to accurately record all the test results and if the results appear to be in error, still record the existing results and notify the Laboratory Chief for his disposition.					
					
Signature: <i>J. P. Connolly</i>	(10) Date: 1-3-77	(11)			
Action Verified: <i>Jon H. Hook</i>	(12) Date: 1-12-77	(13)			

8/2/77

BECHTEL POWER CORP.
JOB 7220

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BPC 20877
G1001649-05

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.

QUALITY ACTION REQUEST

From: J. G. Hook		Site QA		Midland Job 7220	
To: J. P. Connolly		(2) Control Document ref.: ASTM C-31 & SF/PSF G-3.2		(3) QAR Ident. No.: SC-20	
Action Requested: (5) ASTM C-31 states: "Store all test specimens under conditions that maintain the temperature immediately adjacent to the specimens in the range of 60° to 80°F..."					
However, the record control cylinders that represent the concrete that was placed in pour SWI(692.0)a on 11/17/76 were exposed to a temperature range of 50°F to 64°F for the first 20+ 4 hours. This was due to the fact that the atmos. here immediately adjacent to the specimens experienced a temperature drop every time the lab door was opened.					
CORRECTIVE ACTION RECOMMENDED: 1) Review the concrete cylinders which have the curing temperatures out of the 60-80°F range as specified by ASTM and identify them as nonconforming. 2) Provide some type of enclosure to store the cylinders.					
Signature: <i>J. G. Hook</i>		(6) Date: 12-7-76		(7) Reply Requested by: 12-31-76	
Reply: (9) 1) Batch Plant cylinders having initial curing out of the 60 - 80°F range have been identified by Quality Control on NCR 640.					
2) An enclosure to store cylinders for the first 24 hours has been provided and has shown satisfactory results.					
3) T. Lieb and G. Yeisley (OCE's at the lab) are aware of the need to record all nonconforming conditions.					
Signature: <i>J. P. Connolly</i>		Action Verified: <i>J. G. Hook</i>		8/2/77	
WHITE - Return to sender		CANARY - Addressee's file		PINK - Sender's file	
BPC-20877		G1001649-05			

QA ROUTE

INFO

ACT.

LQAE

CIVIL

ELEC.

MECH.

PIPING

FILE

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JAN 04 1977

DECHTEL POWER CORP.

JOB 7220

(10) Date: 1-3-77

(11)

(12) Date: 1-6-77

(13)

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.

Route To	This Copy For	 CONSUMERS POWER Nonconformance Report No <u>OF-141</u>	File <u>16.3.6</u>
BWMarguglio	SHHowell		Issue Date <u>January 10, 1977</u>
HWSlager	CSKeeley		Project <u>Midland 1 & 2</u>
JHMaclaren	TCCooke		File Title <u>NCR's on Bechtel</u>
	JFNewgen		<u>Quality Control</u>
	JMilandin		
	JMKlacking		
	GLRichardson		
	Subject File		

This Nonconformance Report is Issued To:

J. P. Connolly
 Bechtel Project Field Quality
 Control Engineer

Prepared By Donna Date 1-10-77Approved By J. P. Connolly Date 1-10-77Written Reply Requested By Date 1-17-77Corrective Action Requested By Date 1-31-77

who is responsible for corrective action.

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:

- (1) Review all open C-1.30 Quality Control Inspection Records for similar problems.
- (2) Determine if indeed these incomplete inspection activities and any found in the review (1) above were actually performed.
- (3) Determine the cause of these inspection activities not being signed and dated.
- (4) Take corrective action to preclude repetition.

¹Corrective Action Taken: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 16.3.6
Issue Date January 10, 1977
Project Midland 1 & 2
File Title NCR's on Bechtel
Quality Control

Attachment to Report No QF-141

Nonconformance Description and Supporting Details:

Appendix B in PSP G-6.1, Rev. 2 Instructions For Preparing And Processing The Inspection Record (QC G 6-6) for Block No. 14 states in part "Upon satisfactory completion of the designated inspection activity the Construction Quality Control Engineer with assigned responsibility for performance of the inspections shall enter his initials and date within the vertical columns in respect to the designated lettered items of Block 5".

Contrary to this instruction, Prerequisites:

- 1.4 Perform a final inspection of all surfaces that are to receive concrete just prior to releasing placement to assure:
 - a. No debris, mud, snow or frozen surfaces exist.
 - b. All surfaces are thoroughly wetted (the surface shall be moist with no standing water).
 - c. During cold weather, ensure contact surfaces are above 35°F.
- 1.5 Perform the following equipment checks:
 - a. Check that adequate communications are available for key personnel.
 - b. Check the conveying and placing equipment for cleanliness and defects that would impair the quality of the concrete.
 - c. Check that adequate protection for placement is available to meet inclement weather conditions.
 - d. When required, check that methods to be used for placing concrete in cold or hot weather comply with the specified requirements.
- 1.6 Verify that the minimum elapsed time between adjacent concrete placements has been satisfied.

In-Process Inspection Activities:

2.1 Construction Joint Treatment

- a. Assure that horizontal construction joints are covered immediately before concrete placement with approximately 1/4 inch of mortar.
- b. Where the congestion of steel near the forms makes placing difficult, a layer of mortar (not exceeding one inch in depth with the same cement sand ratio) may be placed and forced ahead of the concrete.

- 2.4 Batch plant truck delivery tickets shall be reviewed for proper mix per the design drawings.

were not initialed or dated by a Quality Control Engineer indicating completion of these activities on Quality Control Inspection Record No. C-1.30-101 Rev. 1 for pour SWI (609)a' - Service Water Pump Structure North, South and West Walls elevation 592' to 609' poured December 23, 1976.

Attachment to Report No QF-141

Nonconformance Description and Supporting Details: (Contd)

Also contrary to this instruction, Prerequisites:

1.4 Perform a final inspection of all surfaces that are to receive concrete just prior to releasing placement to assure:

- a. No debris, mud, snow or frozen surfaces exist.
- b. All surfaces are thoroughly wetted (the surface shall be moist with no standing water).
- c. During cold weather, ensure contact surfaces are above 35°F.

1.5 Perform the following equipment checks:

- a. Check that adequate communications are available for key personnel.
- b. Check the conveying and placing equipment for cleanliness and defects that would impair the quality of the concrete.
- c. Check that adequate protection for placement is available to meet inclement weather conditions.
- d. When required, check that methods to be used for placing concrete in cold or hot weather comply with the specified requirements.

1.6 Verify that the minimum elapsed time between adjacent concrete placements has been satisfied.

In-Process Inspection Activities:

2.1 Construction Joint Treatment

- a. Assure that horizontal construction joints are covered immediately before concrete placement with approximately 1/4 inch of mortar.
- b. Where the congestion of steel near the forms makes placing difficult, a layer of mortar (not exceeding one inch in depth with the same cement-sand ratio) may be placed and forced ahead of the concrete.

2.3 Consolidation of Concrete

Visually observe the work operations to verify that concrete consolidation activities are in accordance with the following:

- a. Vibrators are operated in the near vertical position, with the vibrating head allowed to penetrate under the action of its own weight and re-vibrate the concrete in the upper portion of the underlying layer.
- b. Vibrators and spares checked as necessary to assure they meet or exceed the minimum frequency specified (7000 cycles per minute).
- c. Surface or form vibrators are not used unless specifically approved for the application by Engineering.

File 16.3.6
Issue Date January 10, 1977
Project Midland 1 & 2
File Title NCR's on Bechtel
Quality Control

Attachment to Report No QF-141

Nonconformance Description and Supporting Details:

In-Process Inspection Activities: (Contd)

- 2.4 Batch plant truck delivery tickets shall be reviewed for proper mix per the design drawings.
- 2.5 The QCE receiving concrete shall record on Form QC-C12-1 that the testing methods, frequency of testing, and concrete acceptance was in accordance with project requirements.

were not initialed or dated by a Quality Control Engineer indicating completion of these activities on Quality Control Inspection Record No. C-1.30-87 Rev. 2 for pour CC(693.42)a' - Containment #2 Exterior wall 0° to 360° elevation 683'-3" to 693'-5" poured November 24, 1976.

Route To	This Copy For		File	16.3.6
BWMarguglio	SHHowell		Issue Date	January 12, 1977
HWSlager	CSKeeley	Consumers Power	Project	Midland 1 & 2
JHMaclaren	TCCooke		File Title	NCR's on Bechtel Quality Control
	JFNawgen	Nonconformance		
	JMlandin	Report No	QF-142	
	JMKlacking			
	GLRichardson			
	Subject File			

This Nonconformance Report is Issued To:

J. P. Connolly
Bechtel Project Field Quality
Control Engineer

who is responsible for corrective action.

Prepared By John B. Johnson Date 1/12/77Approved By J. P. Connolly Date 1/12/77Written Reply Requested By Date 1/19/77Corrective Action Requested By Date 2/09/77

Nonconformance Description and Supporting Details: U.S. Testing QA Manual Rev. 5, Section 13.2 states, "To assure accuracy, measuring and test equipment shall be controlled, calibrated, adjusted, and maintained in accordance with Procedure No. QCP-4 at intervals prescribed therein or prior to the performance of tests".

Attachment No. 3 "Laboratory Equipment Calibration Freq. List" in Procedure No. QCP-4 Rev. 1 states the calibration for Tensile Machine Gripper is every three months. Contrary to these requirements, on January 11, 1977 the Tensile Machine Grippers calibration sticker indicated a calibration due date of 1/5/77. In checking the calibration records the actual calibration due date was 1/7/77, however, the Tensile Machine Grippers had not been calibrated as of January 11, 1977. Date of last rebar test was 1/5/77.

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

U.S. Testing placed one hold tag after notification by CPCo.

Recommended Corrective Action:

- (1) Review all calibration due dates for Primary Reference Standards, Secondary Reference Standards, Measuring and Test Equipment for similar nonconforming conditions.
- (2) Calibrate the Tensile Machine Grippers and any equipment found out of calibration in review (1) above.

(Contd)

¹Corrective Action Taken: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 16.3.6
Issue Date January 12, 1977
Project Midland 1 & 2
File Title NCR's on Bechtel
Quality Control

Report No QF-142

Recommended Corrective Action: (Contd)

- (3) Determine the cause of this nonconformance and any found in review (1) above.
- (4) Take corrective action to preclude repetition.

Route To	This Copy For	 Consumers Power Nonconformance Report No <u>QF-143</u>	File	16.3.4 & 16.3.6
JHMaclaren	SHHowell		Issue Date	January 19, 1977
HWSlager	GSKeeley		Project	Midland 1 & 2
BWMarguglio	TCCooke		File Title	NCR's on Bechtel Construction and QC
	JMilandin			
	JMKlacking			
	GLRichardson			

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

J. P. Connolly
 Bechtel Project Field QC Engineer
 who is responsible for corrective action.

Prepared By RE Whitaker Date 1/19/77
 Approved By J. P. Connolly Date 1/19/77
 Written Reply Requested By Date NA
 Corrective Action Requested By Date NA

Nonconformance Description and Supporting Details: During final rebar inspection by CPCo in the Unit #1 Feedwater Isolation Valve Chamber, the following discrepancy was identified:

Drawing C-429 detail shows diagonal #11 rebar around the two 36" penetrations. The notes on drawing C-429 refer to drawing C-631 for typical details around penetrations. FCR C-688 attached to drawing C-631 requires a diagonal bar 132 inches long centered on the penetration. Contrary to this requirement, two of the diagonals were found to be improperly centered around the penetration.

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 location of the diagonal rebar or provide engineering rationale to "use as is".

¹Corrective Action Taken:

The location of the rebar was corrected before the concrete was poured.

¹Verification of Corrective Action Required Yes ☒ No ☐

¹Method of Verification:

The relocation of the rebar was visually verified before the concrete was poured.

¹Nonconformance Closure Confirmed By 1/19/77 RE Whitaker
 Date _____

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

Route To	This Copy For	 Consumers Power Nonconformance Report No QF-145	File
BWMarguglio HWSlager JHMaclaren	SHHowell GSKeeley TCCooke JPConnolly JMilandin JMKlacking GLRichardson File		16.3.4 Issue Date January 25, 1977 Project Midland 1 & 2 File Title NCR's on Bechtel Construction

This Nonconformance Report is Issued To:

Mr. J. F. Newgen
Bechtel Project Superintendent

Prepared By JKK. [Signature] Date 1-25-77Approved By [Signature] Date 1/25/77Written Reply Requested By Date 2-25-77Corrective Action Requested By Date 2-25-77

who is responsible for corrective action.

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.

¹Corrective Action Taken: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.

Attachment to Report No QF-145

Nonconformance Description and Supporting Details:

10CFR50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings" requires, in part, that, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings".

Contrary to the above, miscellaneous metal embeds in the Unit 2 Reactor building (reactor building liner plate embeds excepted) which require a Q-coating were coated without a specification being in effect that governed the operation. Additionally, Bechtel drawing A-72, Revision 2, "Coating Systems & Schedule and Legend Abbreviations," indicates that miscellaneous metal embeds in the containment buildings are to be coated with Amercoat 71. Contrary to the drawing, the products used were Carbozinc 11 or Amercoat 160.

Quality Control inspections were not performed on these items due to lack of clarity on the Q-list and Drawing A-72 relative to containment building coatings.

Recommended Corrective Action:

- 1) Clearly identify, through Project Engineering, all field applied Q-list coatings in the containment buildings.
- 2) Notify Quality Control organizations so that the required inspections can be performed.
- 3) Establish a specification to govern the coating operation.
- 4) Revise the subcontractor's QA manual to address the established specification.
- 5) Blast and recoat the affected items in accordance with the established specification.
- 6) Provide effective control in the field so that Q-coated items can be differentiated from the non-Q when the coatings are on like items.
- 7) Comply with coating systems required on drawing A-72, and revise the drawing to reflect the clarification obtained under item 1) above.

Route To	This Copy For	 Consumers Power Nonconformance Report No <u>OF-146</u>	File	16.3.6
BWMarguglio	SHHowell		Issue Date	January 28, 1977
HWSliger	GSKeeley		Project	Midland 1 & 2
JHMaclaren	TCCooke		File Title	NCR's on Bechtel
	JFNewgen		Quality Control	
	JMilandin			
	JMKlacking			
	GLRichardson			

This Nonconformance Report is Issued To:

Mr. J. P. Connolly
Bechtel PFQCEPrepared By LoKooting Date 1-28-77Approved By [Signature] Date 1/28/77Written Reply Requested By Date 2-25-77Corrective Action Requested By Date 3-11-77

who is responsible for corrective action.

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

¹Corrective Action Taken: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.

Attachment to Report No QF-146

Nonconformance Description and Supporting Details:

Project Special Provision G-3.2, Rev. 1 (also Rev. 2 which is approved but not yet implemented) requires under section 3.2.6 that the conditions which determine whether an item is to be classified as an incomplete item or a nonconformance are based on when the item was discovered and the nature of the item in terms of the action required to correct it. Subsection A. 2) of the above referenced section indicates that an open inspection record is adequate for controlling only "rework" items. Subsection B. 2) indicates that "repair" items require a nonconformance report.

Contrary to the above, a "repair" item is being processed through the use of an open inspection record (Discrepancy Report). A deep gouge on the Unit 1 liner plate at the 688' elevation, 148° azimuth was documented on a Discrepancy Report attached to QCIR C-7.00-3. The inspection criteria cited on the Discrepancy Report is part of Appendix B to specification C-111 for the erection of the reactor building liner plate. Appendix B is entitled "Repair Procedures for Reactor Building Liner Plate".

Recommended Corrective Action:

- 1) Issue a nonconformance report on the deep gouge.
- 2) Verify that the liner plate meets other tolerance requirements (i.e., template requirements) in the vicinity of the deep gouge.
- 3) Revise PSP G-3.2 to clearly indicate that a Discrepancy Report is to be used only for "rework" items and that an item initially thought to be rework but later determined to meet requirements of section 3.2.6 B. 2) requires the issuance of a nonconformance report.
- 4) Conduct training for QCE's in the proper use of the discrepancy report.



NONCONFORMANCE - REPORT LOG & STATUS BOOK

12.

REPORT DATE 4-22-76

PAGE COMPL. _____

O.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
400	3-31-76	H. Boleen	C-233A. Fabrications with improper welding 1.201	Field 3-31-76	No	3-31-76	4-8-76	A. L. Boulden
401	4-1-76	H. Boleen	M-117. Listing of Valves with rust, noted on receipt inspection ASME Varies	Field 4-1-76	No	4-5-76	4-27-76	P. M. Pitts
402	4-2-76	R. Lussier	C-38. Structural Beam 233B9. crack @ angle clip. 1.201	Field 4-2-76	No	4-5-76	4-5-76	R. G. Lussier
403	4-1-76	T. Lieb	C-230. Quality Verification Documents Submitted without G321D. Varies	Field 4-2-76	5-11-76	4-1-76 6-3-76	6-4-76	L. R. Albert
404	4-5-76	J. P. Betts	C-52. Cadweld sleeve appears to have been cut off. 1.104	Field 4-6-76	No	4-8-76	4-16-76	D. L. Osborn
405	4-8-76	R. Hendricks	M-92. Welding lack of fusion, Girder G-1. Unit #1 4.001	Field 4-12-76	No	8-4-76	1-12-77	A. L. Boulden
406	4-13-76	L. P. Wehner	C-304. Column at 5.31 & Ex mislocated at 617-0. 1.201	Field 4-13-76	5-7-76	6-14-76	7-28-76	W. M. Pardee
407	4-19-76	H. Boleen	M-106. Hanger Fab sheets approved level 4 4.112	Field 4-19-76	6-1-76	7-8-76		
408	4-21-76	W. Pardee	C-50A Dome Liner Plate Heat Number Discrepancy 1.109	Field 4-21-76	No	5-6-76	9-16-76	W. M. Pardee
409	4-21-76	R. Bennett	C-110 Deep gouge in Liner Plate Cont. #1 1.109	Field 4-22-76	No	4-29-76	4-30-76	P. DiCarlo
410	4-23-76	N. Shawl	C-233. Anchor bolts without ASTM A-325 nuts 1.202	Field 4-23-76	5-3-76	7-8-76	7-12-76	L. R. Albert
411	4-26-76	P. Pitts	M-177 & M-178 Improper Pipe Spools Coverings ASME 4.018 & 4.028	Field 4-26-76	No	6-11-76		



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Midland 1 & 2

JOB NO.

7220

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2 NCR NO.	3 DATE	4 NONCONFORMANCE DESCRIPTION / REMARKS	5 DISPO.	6 DATE NCR CLOSED	7 CLOSED BY
478	8-6-76	C-231. Dwg. C-281. #6 stirrups installed on 12" centers instead of #8 at 9" Aux. Bldg. El. 614' to 630.75' 'Kc' line	Use as is	Telex. 9-10-76 9-20-76	C. Kasch B. T. Cheek
479	8-6-76	M-104A. No reference of NDE on PT Examination Record for pipe spool OHCC-152-S506-1-2	Document Rework	11-18-76	P. M. Pitts
480	8-6-76	C-111. Welding of Dome Spray Header Lugs, Unit #2	Repair	9-21-76	A. L. Boulden
481	8-9-76	M-106. Hangers fabricated to not approved drawings and packing slip revisions do not match sketch revs.	Doc. Rework		
482	8-10-76	M-106. Hanger documentation for NDE & Weld Details.	Use as is	10-28-76	P. M. Pitts
483	8-11-76	C-233A. F-14061 Misc. Metal fabrications received without tag markings.	Reject	8-17-76	R. A. Moray
484	8-11-76	C-233A. F-14438 Trash Rack Gijoe Ass'ys received without tag markings	Document	9-3-76	R. S. Morrow
485	8-11-76	C-233A. F14439 Channel and Plates received without tag markings.	Use as is	10-5-76	H. Boleen
486	8-16-76	C-231. Dwg. C-212. Rebar omitted and Rebar installed too low. Aux. Bldg. E. Transfer Tube Room.	Repair		
487	8-16-76	C-231. Dwg. C-256. Aux. Bldg. E Transfer Tube Room. Channel not embedded in concrete 620'0" to 630'0"	Use as is	Telex. 9-10-76 9-20-76	C. Kasch B. T. Cheek
488	8-17-76	M-104A. Code tag on pipe spool does not correspond with documentation, for pipe spool 1-GCB-8-S612-1-3	Rework	1-13-77	F. Mahala
489	8-17-76	C-231. #6 Rebar cut to allow installation of Struct. base plate for beam 6'3" West of 8.7. Along 'A' Line El. 634'6" Aux.	Use as is	10-12-76	M. E. Foote
490	8-19-76	M-64. Radwaste Decay Tanks equipment bases not coated with an elastomeric Compound.	Rework	10-4-76	C. Groat
491	8-19-76	M-106AC. Pipe Supports Fabricated to Level 4 Dwgs. Packing List does not agree with Dwgs. sent.	Doc. Rework		
492	8-19-76	M-106AC. Pipe Supports fabricated to Level 4 Dwgs. Pkg. List does not agree with Dwgs. sent. Clamps not numbered.	Rework & Doc.		
493	8-19-76	SIO. PO F-14792. Bolt Heads not marked A490. Forms FPG-9-1 and FPG-9-2 not completed by Vendor.	Use as is	9-24-76	H. Boleen
494	8-19-76	M-1.35. No correlation between documentation for 4 NMI Non O System Cabinets and 4 Cabinets.	No Dispo	11-15-76	J. P. Connolly
495	8-19-76	M-106AC. Hangers fabricated to level 4 dwgs. Pkg. list does not agree with dwgs. sent. Hangers arrived before dwg. appr.			
496	8-19-76	E-42. Conduit damaged by drilling. Aux. Bldg. 584'0" slab.	Repair	11-4-76	D. T. Davis



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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' 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 (630)e	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-111. 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-H5 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.	Use as is	1-18-77	D. L. Osborn
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.	1-26-77	C. Groat
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.	Reject		



12-1-76

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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.	Documenta- tion	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	1-19-77	R. S. Morrow
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	12-17-76	J. R. Slifer
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 Noncon- formance	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 Noncon- formance	9-24-76	H. Boleen
533	9-23-76	M-106AC. Random Hanger Support hanger rod was not threaded as required.	No Noncon- formance	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	Use as is.	Telex. 9-28-76 10-26-76	M. E. Foote



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2 NCR NO.	3 DATE	4 NONCONFORMANCE DESCRIPTION / REMARKS	5 DISPO.	6 DATE NCR CLOSED	7 CLOSED BY
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	2-1-77	
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 Dwgs.	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 Dwgs. 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.	Use as is	1-6-77	D. Osborn

12-1-76
11-1-76

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2 NCR NO.	3 DATE	4 NONCONFORMANCE DESCRIPTION / REMARKS	5 DISPO.	6 DATE NCR CLOSED	7 CLOSED BY
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-IFCB-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	1-4-77	H. Boleen
560	10-8-76	M-1.17. Quality Documentation Package has not been received at the jobsite.	Doc.	1-13-77	R. S. Morrow
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
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"	Use as is	1-13-77	D. L. Osborn
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	Use as is	2-1-77	M. E. Foote
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.	Use As Is	Telex 2-2-77	M. E. Foote
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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2 NCR NO.	3 DATE	4 NONCONFORMANCE DESCRIPTION / REMARKS	5 DISPO.	6 DATE NCR CLOSED	7 CLOSED BY
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	Repair		
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'	Use as is	1-19-77	D. L. Osborn
591	11-8-76	C-230. Slump and temperature tests exceeded 35 yard interval. CC(602.3)a'	Use as is	1-18-77	D. Osborn



12-1-76

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2 NCR NO.	3 DATE	4 NONCONFORMANCE DESCRIPTION / REMARKS	5 DISPO.	6 DATE NCR CLOSED	7 CLOSED BY
592	11-8-76	C-230. Air content for Pour C(619.5)a too high.	Use as is	1-12-77	A. Lamach
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	Repair Use as is		
595	11-10-76	Dwg. 617 Sh. 8. Cover pass of Fw 14Cl 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 radio-graphs torn, bent, holes worn through.	Use as is	1-6-77	A. L. Boulden
598	11-11-76	M610 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	1-4-77	R. J. Mesey
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"	Rework		
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	Use As Is	1-24-77	B. T. Cheek
606	11-18-76	Dwg. C-202. 24" spacing for #6 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" shim fillet weld completely around the flanges and web of the item 8 to item 9 joint. 2-617-6-1	No Nonconformance	1-24-77	A. L. Boulden
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 1-6-77	M. E. Foote D. L. Osborn
610	11-29-76	C-233A. F-16574 Rail Clamps, phosphorous content does not meet ASTM A-36.	No Nonconformance	12-20-76	H. Boleen



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2 NCR NO.	3 DATE	4 NONCONFORMANCE DESCRIPTION / REMARKS	5 DISPO.	6 DATE NCR CLOSED	7 CLOSED BY
611	12-1-76	M-115A. No cold springing instructions or Project Engineering authorization provided for 2-GCB-004-S-613-1	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 of HBCCKZ IN638	Repair		
613	12-2-76	C-208. Concrete cylinders' initial curing temperature lower than allowed by ASTM C-31 & C-39.	Use as is	1-3-77	D. L. Osborn
614	12-2-76	C-230. CC(693.42)a' Concrete temperature, air content, and slump.	Use as is	Telex 1-25-77 1-28-77	A. Lamach A. Lamach
615	12-3-76	C-208. Cylinders removed from molds fell 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	1-12-77	M. Foote
617	12-3-76	M-104A. Spool LHCB-16-S612-3-3 delivered with an unapproved submittal			
618	12-1-76	E-20. Documentation not received with weld neck flanges.	Doc.	1-10-77a	H. Boleen
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	Use as is	1-13-77	D. L. Osborn
621	12-7-76	C-304. Shear connectors fabricated contrary to the requirements 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. Spiraltallic style 913 gaskets rec. instead of R3, R4, CG.			
626	12-9-76	C-230. Flyash content of 8 c.y. of concrete has higher than allowable limit. Pour # Y(590)a	Use As Is	Telex 1-27-77	D. L. Osborn
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. El. 642'7"	Use As Is	Telex 12-2-76 1-24-77	A. Lamach



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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	Use as is	Telex 1-24-77 1-28-77	B. T. Cheek B. T. Cheek
631	12-15-76	C-233A. PO-14441 Quality verification documentation not received for 17 embeds.	Doc.	1-20-77	J. R. Slifer
632	12-15-76	C-233A. PO-14061 Quality verification documentation not received for 4 embeds.	Doc.	1-20-77	J. R. Slifer
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.	Reject		
635	12-16-76	C-233A. Pedestal welds on two A2 embeds have insufficient 5/8" fillets. PO-13637	Rework	1-13-77	A. L. Boulden
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	Rework & Reject		
639	12-20-76	C-38. G-321-D's rec'd for studs and steel rails not traceable to accompanying doc. or material.	Doc.		
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.	Reject		
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'	Use As Is	Telex 1-25-77 1-28-77	G. Sanders G. Sanders
646	12-27-76	C-231. Curing temperature of South portions of walls dropped to 33° for 4 hours. Aux. Bldg. walls 19° & 19°	Use as is	Telex 1-13-77	D. L. Osborn.
647	12-27-76	C-231. Curing temperature of Leibherr Crane Hole dropped below 50°	Use As Is	Telex 1-27-77	D. L. Osborn
648	12-29-76	M-106AC. Hanger fabricated to Level 9 sketch - Carbonsteel plate fabricated to incorrect dimen.			



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² NCR NO.	³ DATE	⁴ NONCONFORMANCE DESCRIPTION / REMARKS	⁵ DISPO.	⁶ DATE NCR CLOSED	⁷ CLOSED BY
549	12-29-76	Dwg. M-166. Service Water Yard Piping spool OHBC-15-5-A44 damaged by earth moving equipment.			
650	12-30-76	M-104A. Pipe spool IEBB-5-S638-14-1 delivered with contaminate inside and no desiccant.	Reject		
651	12-30-76	M-104A. Pipe spool IGCB-2-S612-1-3 fabricated as a 2-1/2" spool instead of 3" as called out by dwg.			
652	12-30-76	C-38AC. Beams 640-D3H, 642-D3H have copes cut past the point of tangency.	Rework		
653	12-30-76	M-125CC. Gate valve 18HCB-GT-2MO-1310-B-RL has handle to manual operator broken off.	Rework		
654	1-4-77	C-208. One set of record cylinders and one set of field cylinders taken for 134 c. y. concrete A(646)b'			
655	1-3-77	C-208. Cylinders being cured in tanks cured at too low or too high temperatures. 12/25/76-12/26/76			
656	1-5-77	M-104A. Spool IHCB-11-S608-2-1, shipping damage to spool ends	Rework		
657	1-7-77	M-104A. Portion of spool OHCD-621-S614-8-1 is pipe class HCC.			
658	1-11-77	M-326. Hanger 18-IHBC-133-H9 welded to allow movement in wrong direction	Rework		
659	1-11-77	M-104A. Spool numbers interchanged on spools IHBC-303-S512-3-2 & 3-3.	Doc.		
660	1-11-77	C-231. Concrete curing temperature fell below 50°F Pour # C(662.95)b'	Use as is	Telex 1-19-77 1-28-77	D. L. Osborn D. L. Osborn
661	1-12-77	C-231. Concrete curing temperature fell to 32°F Pour # A(646.5)c'. Wall #9			
662	1-12-77	C-231. Excessive concrete cover, Fuel Pool 5.6 line wall, north of "G"	Use as is	Telex 1-17-77 1-24-77	M. Foote
663	1-13-77	C-231. Concrete curing temperature dropped below 50°F. Pour # A(634.5)e			
664	1-13-77	C-231. Concrete curing temperature dropped below 50°F. Pour SWI(609)b'	No Noncon- formance	1-27-77	B. T. Check
665	1-13-77	Water Stop Damaged by Fire from the Aux. Bldg. Unit #1 Cont. Exterior Wall, Elev. 612+	and Repair		
666	1-14-77	M-132. Documentation for Valves			
667	1-17-77	M-106. Dwg. 2-611-6-7. Base Plates welded to items 7 & 5 instead of item 5			
		10-2FCB-35-H7			



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² NCR NO.	³ DATE	⁴ NONCONFORMANCE DESCRIPTION / REMARKS	⁵ DISPO.	⁶ DATE NCR CLOSED	⁷ CLOSED BY
668	1-17-77	C-231. Concrete curing temperature fell to 38°F, Pour #C(640)a ¹			
669	1-17-77	C-231. Broken and missing rebar, Aux Bldg opening Elev. 584'	Std Repair		
670	1-17-77	C-231. Missing dowel, Aux Bldg Elev. 576'0", 5' east of 6.6, 10' south of F line			
671	1-17-77	C-231. Missing dowel, Aux Bldg Elev. 576'0", 8' east of 6.6 on D line wall			
672	1-17-77	C-231. Broken dowel for block wall, Aux Bldg Elev. 599'0", 6' east of 7.9, 4' north of B line	Std. Repair		
673	1-17-77	C-231. Broken dowel for block wall, Aux Bldg Elev. 599'0", 7' east of 5.1, 2' south of A line			
674	1-17-77	C-231. Missing dowel, Aux Bldg, Elev. 593'0", 10' south of F line, on 5.6 line			
675	1-17-77	C-231. Broken dowel for block wall, Aux Bldg, Elev. 614'0", 10' east of 7.4 line, 17' north of B line			
676	1-19-77	Dwg. E-536. Conduit 1 A010 damaged by drilling. Aux. Bldg. slab at Elev. 599'0"			
677	1-20-77	M-104A. G-321D not received for reducers, Mat'l not allowed for on piping class sheets			
678	1-20-77	M-106A. Hanger 18-1HCB-1-H10 fabricated to level #9 drawing			
679	1-24-77	C-208. Record cylinder set for Pour C(652.75)b ¹ cured below minimum requirement.			
680	1-24-77	M-104A. Several pipe spools delivered with no desiccant inside.			
681,	1-24-77	C-231. Fire damage to letdown cooler walls, Cont #2, Elev. 613+ to 624+			
682	1-25-77	C-231. Grout not properly bonded to construction joints, 5.3 and 7.8 lines, H line to Kc line, 614'0"			
683	1-28-77	M-104A. Code data sheet and NDE reports do not correspond with Spool piece 2-HCB-21-S613-6-2			
684	1-28-77	C-111. Pits and gouges in liner plate out of tolerance as outlined by spec.	Std. Repair		
685	1-28-77	C-230. Flyash content 1.5 lbs over allowable, one load, Pour SWR(598.5)a			
686	1-1-77	C-211. Backfill material delivered 12-76&12-14-76 without required testing			

Route To	This Copy For	 Consumers Power Nonconformance Report No <u>OF-144</u>	File <u>16.3.4</u>
BWMarguglio	SHHlowell		Issue Date <u>January 21, 1977</u>
HWSlager	GSKeeley		Project <u>Midland 1 & 2</u>
JHMaclaren	TCCooke		File Title <u>NCR's on Bechtel Construction</u>
	JMilandin		
	JMKlacking		
	GLRichardson		
	File		

This Nonconformance Report is Issued To:

Mr. J. F. Newgen
Bechtel Project Superintendent

Prepared By L. K. Kestner Date 1/21/77Approved By L. K. Kestner Date 1/21/77Written Reply Requested By Date 2-04-77Corrective Action Requested By Date 2-18-77

who is responsible for corrective action.

Nonconformance Description and Supporting Details:

Storage Form F-1-242 Rev. 0 for Q-listed "Pipe Supports, Guides, Restraints, Anchors, etc." requires that these items be stored Level C indoors.

Contrary to the above, pipe hangers stored in warehouse #2 are exposed to water dripping from the roof of the building.

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. Rearrange storage to areas where water is not a factor.
or
2. Provide covers to prevent water from dripping onto the pipe hangers. (It is or noted that covers have been provided in some cases.)
3. Eliminate the condition causing the water on the building interior.

Corrective Action Taken:

The hangers have been moved out from under the dripping skylights.

Verification of Corrective Action Required Yes ☒ No ☐

Method of Verification:

A walk-through of the warehouse was conducted and it was observed that the pipe hangers that were in areas where water was dripping had been moved to dry areas.

Nonconformance Closure Confirmed By L. K. Kestner
Date 2-18-77

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