

Stephen H. Howell
Vice President



Consumers
Power
Company

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201

March 21, 1975

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

Dr. Donald F. Knuth
Regulatory Operations
US Nuclear Regulatory Commission
Washington, DC 20555

Dear Dr. Knuth:

In accordance with Condition 4 of Memorandum and Order ALAB-106 dated March 26, 1973, and Amendment No 1 to the Midland Plant Construction Permit, enclosed are two copies of the nonconformance reports for February 1975. This report consists of copies of Bechtel Nonconformance Reports, Quality Assurance Discrepancy Reports, and Quality Audit Findings written or closed during the month; all sheets from the Bechtel Nonconformance Report Log and Status Book which reflect open Bechtel NCR's; and Consumers Power Company Nonconformance Reports written or closed during the month.

Yours very truly,

SHH/sjb

CC: JGKepler, USNRC

8006180 "746

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NONCONFORMANCE - REPORT LOG & STATUS BOOK

12. 3-3-75
 REPORT DATE 11-29-74, 1-2-75, 2-3-75
 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	
220	11-12-74	W. C. O'Neil	C-111. Bulge in Shop Weld, S5-3-U-2 1.109	Field 11-12-74	No	11-14-74	12-16-74	S. Tucker	
221	11-14-74	R. G. Lussier	C-111. Bulged and Torn Liner Plate S2-10-U-2 & S1-11-U-2 1.109	Field 11-14-74	No	11-18-74	12-10-74	R. G. Lussier	
222	11-14-74	R. Revereza	C-231. Aux Bldg Rebar broken El. 593', 7.4 Line 1.203	Field 11-14-74	No	11-18-74	11-22-74	L. Johnson	
223	11-14-74	R. Revereza	C-231. Aux Bldg Rebar broken, El. 593' 1.203	Field 11-14-74	No	11-18-74	1-13-75	L. R. Albert	
224	11-15-74	R. A. Moray	G-5. Deviation from Storage Requirements	Field 11-18-74	No	12-10-74			
225	11-19-74	L. Shively	C-230. Slump out of spec, pour CC(606)a 1.105	Field 11-19-74	11-26-74	2-13-75	2-14-75	L. R. Albert	
226	11-19-74	L. R. Albert	C-230. Water/Cement Ratio out of spec, Pours A(583.25)d, A(578.67)f 1.205	Field 11-19-74	11-26-74	2-13-75	2-13-75	L. R. Albert	
227	11-20-74	P. Carpenter	C-230. Sand failed gradation requirment Pour A(597.25)b' 1.205	Field 11-19-74	11-26-74	2-12-75	2-14-75	L. R. Albert	
228	11-20-74	R. A. Moray	C-233A. G-321D Form improperly filled out. 1.101	Field 11-20-74	No	1-21-75	1-22-75	L.R. ALBERT	
229	11-20-74	W.C.O'Neil	C-111. Gouge in Dome Liner Plate 1.109	Field 11-20-74	No	11-22-74			
230	11-21-74	T. Haswood	C-111. Sharp Bend in Dome liner Plate RD-9-18 1.109	Field 11-21-74	No	11-25-74			
231	11-21-74	T. Haswood	C-111. Bulge & Tear in Dome Plates RD-10-9 & RD-4-9 1.109	Field 11-21-74	No	11-25-74			



NONCONFORMANCE - REPORT LOG & STATUS BOOK

12. 1-2-75, 2-3-75, 3-3-75
 REPORT DATE 10-2-74, 10-2-74, 10-2-74
 PAGE COMPL. _____
 Q.C. ENG. SIGN _____

1. PROJECT NO. 7220

2. NCR NO.	3. DATE	4. PREPARED BY	5. NONCONFORMANCE DESCRIPTION/REMARKS	6. STATUS				
				6. ROUTE	7. DATE XMTD	8. DATE RETD	9. DATE CLOSED	10. CLOSED BY
184	9-74	R. C. Boothe	M-1. B&W Documentation missing for A-33-2012-50-1 ASME 4.028	B & W	No	10-16-74	10-16-74	H. D. Foster
185	9-74	H. D. Foster	C-110. Liner Plate surface defects, S4-1-U-2 & S3-1-U-2 1.109	Field	No	10-1-74	10-18-74	M. Hopfenspiger
186	9-74	H. D. Foster	C-110. Liner Plate surface defects, S2-15-U-2 & S1-2-U-1 1.109	Field	No	10-1-74	10-18-74	M. Hopfenspiger
187	9-74	H. D. Foster	C-110. Liner Plate surface defects, S2-13-U-2 & S1-14-U-2 1.109	Field	No	10-1-74	12-10-74	M. Hopfenspiger
188	9-74	H. D. Foster	C-110. Liner Plate surface defects, S2-12-U-2 & S1-13-U-2 1.109	Field	No	10-1-74	10-18-74	M. Hopfenspiger
189	9-74	H. D. Foster	C-110. Liner Plate surface defects, S2-14-U-2 & S1-1-U-1 1.109	Field	No	10-1-74	10-18-74	M. Hopfenspiger
190	10-1-74	R. A. Moray	M-115. X-Ray reports not signed by Shop Inspector, 2-GCB-010-S613-4.4.314 ASME	Field	No	10-14-74	10-15-74	R.A. Moray
191	10-1-74	R. A. Moray	C-2. Lack of correlation between Doc. & Base Plate Assys. 1.107	M.S.	No	10-28-74	10-28-74	R. A. Moray
192	10-3-74	B. F. Price	C-110. Liner Plate surface defects, S2-15-U-1 & S1-12-U-1 1.109	Field	No	10-7-74	12-10-74	M. Hopfenspiger
193	10-4-74	R. A. Moray	C-66. Beams of not approved material 1.201	Field	No	10-18-74	11-7-74	R. A. Moray
194	10-7-74	M. Hopfensprger	C-110. Liner Plate surface defects, Unit #2 1.109	Field	No	10-8-74		
195	10-9-74	L. R. Albert	C-231. Crack in Concrete, Az 243° to 253°, Unit #1 1.205	Field	No	10-18-74	2-7-75	L.R. Albert

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NONCONFORMANCE - REPORT LOG & STATUS BOOK

12.

REPORT DATE <u>1-2-75, 2-3-75, 3-3-75</u>
PAGE COMPL. _____
O.C. ENG. SIGN _____

1. PROJECT NO. 7220

NCR NO.	3. ORIG. DATE	4. PREPARED BY	5. NONCONFORMANCE DESCRIPTION/REMARKS	STATUS					
				6. ROUTE	7. DATE XMTD	8. DATE RETD	9. DATE CLOSED	10. CLOSED BY	
244	12-4-74	R.A.Moray	Bulk Items. Bolts not properly marked Varies	Field 12-4-74	No	12-16-74	1-9-75	R.A.Moray	
245	12-6-74	R. Revereza	C-231. Aux Bldg #8 Rebars broken, Walls #27 & #29 1.203	Field 12-9-74	No	12-9-74			
246	12-9-74	M. Hopfenspirger	C-110. Liner Plate surface defects, S6-15-U-2 & S5-13-U-2 1.109	Field 12-9-74	No	12-14-75 12-10-74			
247	12-10-74	J.C.Fitzgerald	C-231. Unit #1 Base Slab, crack in Conc Az 30°-42° 1.105	Field 12-10-74	No	12-13-74	2-7-75	L.R.Albert	
248	12-11-74	R. Revereza	C-231. Aux Bldg blockout for Structural Beams omitted 1.205	Field 12-11-74	No	12-11-74	1-14-75	L. Shively	
249	12-11-74	L. Johnson	C-211. Excessive Structural Backfill left placed 1.002	Field 12-11-74	No	12-12-74	12-12-74	L. Johnson	
250	12-13-74	J. Aldridge	C-2. Damaged Semi-Rigid Sheathing 1.107	Field 12-13-74	No	1-29-75			
251	12-13-74	E. J. Manning	C-38. Damaged Structural Steel 1.201	Field 12-13-74	1-8-75	1-24-75			
252	12-13-74	F. Etheridge	C-111. Wrong welding procedure used 1.109	Field 12-13-74	12-17-74	12-30-74	12-31-74	A.L.Boulden	
253	12-17-74	E.J.Manning	C-38. Damaged Structural Steel, shipment C-10 1.201	Field 12-17-74	1-8-75	1-24-75			
254	12-18-74	A. Boos	C-231. Aux Bldg Wall, Rebar coverage 1.203	Field 12-19-74	12-19-74	12-20-74	12-20-74	L.R.Albert	
255	12-19-74	W.C.O'Neil	C-111. Gouges on edge of Dome Liner Plate RD-9-13 1.109	Field 12-19-74	NO	12-19-74			



NONCONFORMANCE - REPORT LOG & STATUS BOOK

12. REPORT DATE 2-3-75
 PAGE COMPL. _____
 O.C. ENG. SIGN _____

1. PROJECT NO. 7220

2. NCR NO.	3. ORIG. DATE	4. PREPARED BY	5. NONCONFORMANCE DESCRIPTION/REMARKS	8. STATUS				
				6. ROUTE	7. DATE XMTD	8. DATE RETD	9. DATE CLOSED	10. CLOSED BY
280	1-31-75	G.G. Butler	M-178. Hvdro water for 2CCB-72 not with in limits of letter BEBC598.ASME,4.353	Field	1-31-75	2-13-75		
281	2-3-975	J.C.Aldridge	F-11187. Bulk Material criteria, no Certificate of Conformance	M.S. Field	No	2-10-75	2-10-75	R.A.Morav
282	2-5-75	R.A.Moray	M-1. Cert of Conformance not rcd for list of Items. ASME 4.029	B&W	No			
283	2-7-75	J.C.Aldridge	C-66. Documentation for F-10366, AEO-498 G-321-D Form	M.S. Field	No	2-13-75	2-13-75	R. A. Moray
284	2-7-75	J.C.Aldridge	C-66. Documentation for F-10366, AEO-498 Cert of Conformance MTR	M.S. Field	No	2-13-75		
285	2-7-75	R.A.Moray	M-204. Heat Codes, Marking, Sizes on Fittings, F-10577. ASME	Field	No	2-18-75		
286	2-10-75	J. Fitzgerald	C-231. Curing of pour CC(593.5)e 1.205	Field	2-11-75	2-20-75	2-20-75	L. R. Albert
287	2-12-75	A. L. Boulden	C-111. Welds on liner plate to hold pipe restraints 1.102	Field	No	2-18-75	2-18-75	A. L. Boulden
288	2-13-75	L. R. Albert	C-39. Rebar KE-2041 Failed user test for over-shipment 1.103	Field	2-18-75			
289	2-18-75	R. A. Moray	C-38. Shipment C-17. two beams damaged 1.201	Field	2-21-75			
290	2-21-75	R. Revereza	C-39. Aux Bldg Floor slab poured w/o vertical dowels for construction opening 1.203	Field	No	2-24-75		
291	2-25	R.A.Moray	C-38. Documentation not Rcd for Nuts/Bolts/Washers 1.101/1.201	M.S. Field				

NONCONFORMANCE REPORT

1. PAGE 1 OF 2
 14. NCR 225
 25. DISPOSITION CONCURRENCE
 REWORK REJECT REPAIR USE AS IS ODC
 PROJECT FIELD ENGINEER J.C. [Signature] 2-14-75
 PROJECT ENGINEER [Signature] 2-17-75
 PROJECT FIELD QC ENGINEER [Signature] 2-14-75
 AUTHORIZED INSPECTOR [Signature] DATE

2. DRAWING/PART NO. C-230 SCN 4010
 3. ITEM DESCRIPTION Concrete
 4. SERIAL NUMBER N/A
 5. PURCHASE ORDER NO. N/A
 6. CONTRACTOR/LOCATION Champion, Inc.
 7. PROJECT NO. 7220
 8. ITEM LOCATION Tendon Access Gallery (Shaft)
 9. STARTUP SYSTEM NO. N/A
 10. QC FIELD INSPECTION PLAN NO. C-231-3-382 Rev. 1
 11. ASME CODE ITEM YES NO
 12. REPORTED BY L. Skively DATE 11/19/74
 13. VALIDATED BY [Signature] DATE 11/19/74
 14. REPLACEMENT PART NO. N/A
 15. REPLACEMENT SERIAL NO. N/A
 16. SOURCE Subcontractor

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

19. NONCONFORMING CONDITION: Specification 7220-C-230 Rev. 4 SCN 4010 Table 9.1 specifies a rejection limit for slump of 5 inches. Contrary to the above, 2 cubic yards of concrete were inadvertently placed in CC(606.0)a' with a slump in excess of 5 inches. "Q" no. is 1.105.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

21. FIELD DISPOSITION RESULTS:

Field recommends use as is. Total concrete used in cc(606)a' was 22 c.y.
 Field cylinder set 470 was cast to represent the 2 c.y. placed. 28 day results due 12-10-74. *Jan. Kull 11-26-74*

22. ENGINEERING DISPOSITION

Engineering review indicates that 2 c.y. of high slump concrete in a 22 c.y. lift will not have an appreciable affect upon durability. Cylinder breaks indicate that the concrete in question meets and exceeds specification requirements and Engineering concurs with Field recommendation to use as is. Block 8 should be "Buttress Access shaft" which is non-Q. Hence Q no. in Block 19 is inappropriate and QC hold tag should be removed.

23. ENGINEERING DISPOSITION RESULTS:
 CYLINDER SET #407
 AVERAGED 6120 PSI
 @ 28 DAYS. *Success*
 2/14/75

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

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP
 REMARKS _____

27. QC ACCEPTANCE
 QC ENGINEER [Signature] 2/19/75
 AUTHORIZED INSPECTOR _____ DATE _____

Block 22 continued:

Subsequent to the initial Engineering Disposition, Field QC notified Engineering that Block 8 was, in fact, correct - i.e., the pour was "Tendon Access Gallery (Shaft)." Hence Engineering comments re: Q No. and QC Hold Tag are to be disregarded, but technical evaluation and disposition remain as stated.

RTR 2-13-75

Gettink 2-13-75

Continuing 2-13-75

Forecast: 12-6-74

RIXFORD

NONCONFORMANCE REPORT

2. DRAWING/PART NO. A-2 Concrete Mix Designs		7. PROJECT NO. 7220	12. REPORTED BY G.R. Abbott	DATE 11/19/74	1. PAGE 1 OF 1	14. NCR NO. 226
3. ITEM DESCRIPTION Concrete		8. ITEM LOCATION Aux. Bldg. Backfill	13. VALIDATED BY [Signature]	DATE 11/19/74	25. DISPOSITION CONCURRENCE	
4. SERIAL NUMBER N/A		9. STARTUP SYSTEM NO. N/A	15. REPLACEMENT PART NO. N/A		REWORK	REJECT
5. PURCHASE ORDER NO. N/A		10. QC FIELD INSPECTION PLAN NO. C-208-34, C-208-46, C-208-30	16. REPLACEMENT SERIAL NO. N/A		REPAIR	USE AS IS
6. CONTRACTOR/LOCATION Champion, Inc.		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Subcontractor		PROJECT FIELD ENGINEER [Signature] 2-13-75	
18. ROUTING INSTRUCTIONS <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR				PROJECT ENGINEER [Signature] 2-13-75		
				PROJECT FIELD QC ENGINEER [Signature]		
				AUTHORIZE INSPECTOR		

19. NONCONFORMING CONDITION: Concrete Design Mix A-2 approved for job use 6/5/74 established the water/cement ratio as 0.64. Contrary to the above a QC review of concrete records indicates that concrete cylinder set No. 288 (A thru F) representing A-2 concrete mix placed in auxiliary building pipeway slab A(583.25)d had a water/cement ratio of 0.61, cylinder set No. 368 (A thru F) representing A-2 concrete mix placed as lean backfill West of auxiliary building "A" Line had a water/cement ratio of 0.67, and cylinder set No. 270 (A thru F) representing lean backfill concrete placed Northwest of auxiliary building in placement A(578.67)f had a water/cement ratio of 0.70. "Q" No. is 1.205.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING 3 QC HOLD TAGS APPLIED

21. FIELD DISPOSITION RESULTS:

Field recommends use as is. All placements are Mix A-2 lean backfill and are below final grade. All exceed the required 2000 psi at 90 days (See data below)

SET #	PLACEMENT	STRENGTH
270	A(578.67)f	2980 @ 90 days
288	A(583.25)d	3545 @ 90 days
368	A(583)a	2130 @ 28 days

22. ENGINEERING DISPOSITION
The durability, permeability, and creep are not of primary consideration for these backfill pours which carry no significant loads and are considerably below final grade.. The strength data given in Block 20 confirms that strength meets and exceeds specification requirements. Engineering concurs with Field Recommendation to use as is. (Note that "auxiliary building pipeway" is actually a non-Q pipe tunnel from the turbine bldg. to auxiliary bldg.)

23. ENGINEERING DISPOSITION RESULTS:
AGREE THAT PIPE TUNNEL IS NON-HOWEVER BACKFILL CONCRET- NOT. CYLINDER RESULTS HAVE BEEN REVIEWED AND FOUND ACCEPTABLE.

24. IS DESIGN CHANGE REQUIRED <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES. SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP	27. QC ACCEPTANCE G.R. Abbott 2/13/75
DRAWING _____ REV. _____ DCN _____	REMARKS _____	AUTHORIZED INSPECTOR _____ DATE _____
SPEC. _____ REV. _____ ADD. _____		

RIF-ORD

NONCONFORMANCE REPORT

2. DRAWING/PART NO. Spec. C-230	REV. 3	7. PROJECT NO. 7220	12. REPORTED BY Paul Carpenter	DATE 11/20/74
3. ITEM DESCRIPTION Concrete Sand	8. ITEM LOCATION Aux. Bldg. Wall A(597.25)b	9. STARTUP SYSTEM NO. N/A	13. VALIDATED BY <i>[Signature]</i>	DATE 11/24/74
4. SERIAL NUMBER N/A	10. QC FIELD INSPECTION PLAN NO. C-208-1-65	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. REPLACEMENT PART NO. N/A	REV.
5. PURCHASE ORDER NO. N/A	15. REPLACEMENT SERIAL NO. N/A	17. SOURCE Subcontractor		
6. CONTRACTOR/LOCATION Champion, Inc.				

1. PAGE 1 OF 2	14. NCR NO. 227			
25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	USE AS IS	DOC.
			<input checked="" type="checkbox"/>	
PROJECT FIELD ENGINEER <i>[Signature]</i>		DATE 2-12-75		
PROJECT ENGINEER <i>[Signature]</i>		DATE 2/6/75		
PROJECT FIELD QC ENGINEER <i>[Signature]</i>		DATE 2-12-75		
AUTHORIZED INSPECTOR		DATE		

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

19. NONCONFORMING CONDITION: QC review of test results of gradation of sand sample obtained during concrete placement No. A(597.25)b' showed sample failed to meet gradation requirement as specified in Spec. C-230 Section 7.2.2. The "Q" No. is 1.205. The non-compliance occurs on the No. 8 sieve. The requirements are 80 - 100 % passing and the sample tested had 77 % passing.

1 QC HOLD TAG APPLIED

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

FIELD RECOMMENDS USE AS IS
Initial sand gradation, performed prior to placement, passed. The second test which was sampled during the placement, but not run until the following morning, failed. No retests were taken of the actual sand used during the placement. Since the sand has a history of consistently passing gradations both before & after this placement, the occurrence was most probably an isolated failure and not representative of the

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION
Based upon review of the sand gradation data submitted as part of block 20, and concrete cylinder test data, Engineering concurs with Field Recommendation to use as is. Gradation data indicates the sample was atypical. Cylinder breaks indicate concrete meets and exceeds required strength. *RRR 2-4-75*
J. C. Hink 2/5/75

23. ENGINEERING DISPOSITION RESULTS:
REVIEWED CYLINDER TEST REPORTS. SIGNED 2/14/75

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

DRAWING _____ REV. _____ DCN _____

SPEC. _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS _____

27. QC ACCEPTANCE
[Signature] 2/14/75
ENGINEER DATE

AUTHORIZED INSPECTOR _____ DATE _____

block #20 cont'd.

sand used. (See attached data)

28 day tests for cylinder sets 479 & 480, cast during placement are due 12-16-74.

Gary W. Knoll 11-26-74

Block 20 Continued

curing tank was 85, 18 @ 28 and 67 @ 90 days. The field does not consider 35 hours duration harmful to 28 or 90 day cylinder breaks.

Gary W. Knoll 12-2-74



NONCONFORMANCE REPORT

1. PAGE 1 OF 1	14. NCR 204
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	USE AS IS
DDC	
PROJECT FIELD ENGINEER <i>J. Connolly</i> 2-13-75 DATE	
PROJECT ENGINEER <i>J. Connolly</i> 2-7-75 DATE	
PROJECT FIELD QC ENGINEER <i>J. Connolly</i> 2-13-75 DATE	
AUTHORIZE INSPECTOR DATE	

2. DRAWING/PART NO. Spec. C-208	REV. 3	7. PROJECT NO. 7220	12. REPORTED BY <i>Paul Corbett</i>	DATE 11/21/74
3. ITEM DESCRIPTION Cylinder Curing Temperature	8. ITEM LOCATION Tank #1 - Site Lab	13. VALIDATED BY <i>J. Connolly</i>	DATE 11-22-74	
4. SERIAL NUMBER N/A	9. STARTUP SYSTEM NO. N/A	14. REPLACEMENT PART NO. N/A	REV.	
5. PURCHASE ORDER NO. N/A	10. QC FIELD INSPECTION PLAN NO. N/A	16. REPLACEMENT SERIAL NO. N/A		
6. CONTRACTOR/LOCATION U.S. Testing - Site Lab.	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Subcontractor		

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

19. NONCONFORMING CONDITION: A routine review of the log of the U.S. Testing Labs cylinder curing tanks showed that on Nov. 9 and 10, 1974 the temperature of the No. 1 tank as recorded on a hi-low recording thermometer was 68 degrees. This is 2 degrees below the minimum temperature allowed by ASTM C-31. The requirement for temperature control is in Spec. C-208 Para. 7.3.2. The "Q" No's. is 1.105 and 1.205.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Field Recommends Use As Is
Temperature 11-9-74 @ 1000 hrs. was 74°F. temperature 11-11-74 @ 0830 hrs. was 71°F approximately 35 hrs of this period the temperature was below the specified minimum. Test data indicates that cylinders cured for extended period below 70°F will test lower @ 7 days and higher @ 28 and 90 days. The total number of cylinders in the

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION
Field comment in Block 20 re: curing temperature/strength relationship is correct. However, a 2°F differential and a 35 hour duration is small with respect to 90 day (2160 hr) curing period and will have no appreciable effect upon 90 day strengths. Engineering concurs with Field recommendation to use as is. *J.P.C. 2-7-75*
J.L. White 2-7-75

23. ENGINEERING DISPOSITION RESULTS:

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

DRAWING _____ REV. _____ DCN _____

SPEC. _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE
J.P. Corbett 2/19/75
QC ENGINEER DATE

AUTHORIZE INSPECTOR DATE

BE 3

NONCONFORMANCE REPORT

1. PAGE 1 OF 1	14. NCR N 235			
25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	USE AS IS	QC
PROJECT FIELD ENGINEER <i>W. Johnson</i>		DATE 2-13-75		
PROJECT ENGINEER <i>M. J. Berry</i>		DATE 2-7-75		
PROJECT FIELD QC ENGINEER <i>M. J. Berry</i>		DATE 2-13-75		
AUTHORIZED INSPECTOR		DATE		

2. DRAWING/PART NO. C-230	REV. 1	7. PROJECT NO. 7220	12. REPORTED BY <i>W. Johnson</i>	DATE 11/21/74
3. ITEM DESCRIPTION Concrete	8. ITEM LOCATION Aux. Bldg. Slab	13. VALUATED BY <i>M. J. Berry</i>	14. REPLACEMENT PART NO. N/A	DATE 11-21-74
4. SERIAL NUMBER N/A	9. STARTUP SYSTEM NO. N/A	15. REPLACEMENT SERIAL NO. N/A	17. SOURCE Subcontractor	
5. PURCHASE ORDER NO. N/A	10. QC FIELD INSPECTION PLAN NO. C-231-3-413	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
6. CONTRACTOR/LOCATION Champion, Inc.		18. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR		

19. NONCONFORMING CONDITION: Table in Para. 11.1 of Specification C-230 Rev. 1 specifies temperature of concrete placed in thin sections with ambient air temperature between 30 degrees and 45 degrees to be not less than 60 degrees nor more than 70 degrees. Contrary to the above two cubic yards of concrete was inadvertently placed at a temperature of 58 degrees in a 1' - 6" thick slab when the ambient air temperature was 37 degrees. Nonconformance noted during QC Inspection. "Q" No. is 1.205. One hold tag attached.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Field recommends use as is. Placement A(593)a had a total of 18 c.y. placed. The two cubic yards inadvertently placed at 58°F will have a negligible effect on the setting time or strength of the concrete. ACI 306-66 Table 1.4.1, Line 7 recommends 50° as the minimum temperature of concrete as placed.

Gary W. Knell 11-26-74

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

The lower placement temperature will tend to reduce shrinkage, setting rate, and water demand while increasing slump, durability and strength. A 2°F temperature difference for 2 c.y. will not have an appreciable effect on any of these factors. Engineering concurs with Field recommendation to use as is.

R.R. - 2-7-75
J.C. Henke 2-7-75

23. ENGINEERING DISPOSITION RESULTS:

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

DRAWING _____ REV. _____ DCN _____

SPEC _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

S. K. Stewart 2/14/75
QC ENGINEER DATE

AUTHORIZED INSPECTOR DATE

10088-1

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

QC-G3-1

NONCONFORMANCE REPORT

1. PAGE 1 OF 1	14. NCR NO. 235
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	USE AS IS
DOC	
PROJECT FIELD ENGINEER <i>[Signature]</i> 2-13-75 DATE	
PROJECT FIELD QC ENGINEER <i>[Signature]</i> 2-7-75 DATE	
PROJECT FIELD QC ENGINEER <i>[Signature]</i> 2-13-75 DATE	
AUTHORIZED INSPECTOR DATE	

2. DRAWING/PART NO. Spec. C-230	REV. 4	7. PROJECT NO. 7220	12. REPORTED BY <i>Faul Casper</i>	DATE 11/21/74
3. ITEM DESCRIPTION Concrete Plant Water Meter		8. ITEM LOCATION Site Concrete Plant		13. VALIDATED BY <i>J. Marshall</i>
4. SERIAL NUMBER N/A		9. STARTUP SYSTEM NO. N/A		14. DATE 11-22-74
5. PURCHASE ORDER NO. N/A		10. QC FIELD INSPECTION PLAN NO. C-230-109		15. REPLACEMENT PART NO. N/A
6. CONTRACTOR/LOCATION Champion, Inc. Site		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		16. REV. CEMENT SERIAL NO. I/A
18. ROUTING INSTRUCTIONS		<input type="checkbox"/> ROUTE TO FIELD ENGINEERING		17. SOURCE Subcontractor
		<input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR		

19. NONCONFORMING CONDITION: The periodic check of the Champion Inc. concrete plants water metering device on the 4 inch meter showed it to be out of the allowable tolerance. The requirement is specified in Spec. C-230 Section 9.2.3, Para. 4. The metered flow exceeded the 1% tolerance by .087%. "Q" No's. is 1.105 and 1.205.

20. <input type="checkbox"/> FIELD DISPOSITION <input checked="" type="checkbox"/> FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING	21. FIELD DISPOSITION RESULTS:
Field recommends Use As Is. For every 100 gallons measured an actual amount equal to 101.087 gallons was batched. Maximum tolerance is 101 gallons. The .087% is equal to 11.2 ounces per 100 gallons or 0.112 ounces per 1 gallon. The field considers 0.112 ounces per gallon to be of little consequence to both strength and water/cement ratio. <i>Dwyer Knell 12-2-74</i>	CONCUR WITH FIELD & REJECT ENGINEERING RATIONALE <i>[Signature]</i> 2/13/75

22. ENGINEERING DISPOSITION	23. ENGINEERING DISPOSITION RESULTS:
Engineering Concur. Use as is. <i>ALR 2-7-75</i> <i>[Signature]</i> 2-7-75	

24. IS DESIGN CHANGE REQUIRED <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP	27. QC ACCEPTANCE <i>[Signature]</i> 2/13/75 QC ENGINEER AUTHORIZED INSPECTOR DATE
DRAWING _____ REV. _____ DCN _____ SPEC. _____ REV. _____ ADD. _____	REMARKS	

10088-1

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 Pink Copy - PQAE
 Goldenrod Copy - QC

QC-G3-1

NONCONFORMANCE REPORT

KIXFORD / [unclear]

2. DRAWING/PART NO. C-231	REV. 5	7. PROJECT NO. 7220	12. REPORTED BY <i>[Signature]</i>	DATE 11/27/74	1. PAGE 1 OF 2	14. NCR NO. 240
3. ITEM DESCRIPTION Curing	8. ITEM LOCATION Aux. Bldg.	9. STARTUP SYSTEM NO. N/A	13. VALIDATED BY <i>[Signature]</i>	DATE 11-27-74	25. DISPOSITION CONCURRENCE	
4. SERIAL NUMBER N/A	10. QC FIELD INSPECTION PLAN NO. C-231-4-105	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	14. REPLACEMENT PART NO. N/A	REV.	REWORK	REJECT
5. PURCHASE ORDER NO. N/A	15. REPLACEMENT SERIAL NO. N/A	17. SOURCE Construction	16. PROJECT FIELD ENGINEER <i>[Signature]</i> 2-12-75		USE AS IS	QC
6. CONTRACTOR/LOCATION Bechtel, Midland, Michigan			18. PROJECT ENGINEER <i>[Signature]</i> 2-6-75		DATE	
18. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING		<input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR		19. PROJECT FIELD QC ENGINEER <i>[Signature]</i> 2-12-75		
19. AUTHORIZED INSPECTOR <i>[Signature]</i> DATE						

19. NONCONFORMING CONDITION: Specification C-231 Rev. 5 states in paragraph 14.1, "Newly placed concrete shall be kept wet for the first 7 days". Contrary to the above, pilasters on 5.6 line in the auxiliary building were stripped on 11/26/74 and curing had not been initiated on 11/27/74. Nonconformance noted during normal QC surveillance. "Q" No. is 1.205.

1-QC HOLD TAG APPLIED

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

21. FIELD DISPOSITION RESULTS:

Field Recommends to "Use As Is". Corrective action was taken the morning of 11/27/74. Acceptance of the concrete is based on the following points:

(1) There was no direct impingement of curing heat on the surfaces in question during the curing period.

(2) Examination of the surfaces in question after the end of the curing period reveals no significant shrinkage cracking or surface deterioration.

22. ENGINEERING DISPOSITION RESULTS:

U. Boo 12-5-74

Engineering evaluation of this delayed curing has concluded that a 12-24 hr exposure to the concrete protection environment (approx. 70°F and 30-70% rel. humidity) will have no appreciable affect on the curing of fresh concrete. Engineering concurs with Field Recommendation to use as is. *[Signature]* 7-6-75

24. IS DESIGN CHANGE REQUIRED <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP	27. QC ACCEPTANCE <i>[Signature]</i> 2/14/75
DRAWING _____ REV. _____ DCN _____	REMARKS _____	DATE _____
SPEC. _____ REV. _____ ADD. _____		AUTHORIZED INSPECTOR _____ DATE _____

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White Copy - Originator
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Pink Copy - PQAE
Goldenrod Copy - QC

QC-G3-2

Block 20 (Continued)

(3) Curing on the 5.6 wall which contained the subject area was continued 12 hours past the required 7 day period.

Alan J. Boos 12-5-74

QC-G13

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

10000-2



Telephone call

BY RLP/Free / RLH/idea OF Stage 1
 TO DT/Hawaii OF SLP
 DATE 1-24-75 IS _____ TIME N/E
 SUBJECT NCR 240 Early Concrete Curing JOB NO. 7220

ROUTE JCH Q-14
MOR/PLE
 RC NCR binder
 W/NCR 240

pilasters, as per design, are 4'0" wide by 5'6" deep inc. 18" wall.
 If the curing process is interrupted by lack of water (i.e.,
 hydration ceases) it will delay the strength gain. However,
 the strength gain will resume when water is again available

From a graph in "Composition and Properties of Concrete" by
 Troxell, Wang read the following data:

- after 1 month curing in a 50% rel. humidity environment
 the loss of evaporable (i.e., free or avail. for hydration)
 water will be
- 100% @ surface
 - 30% @ 1 in. in from surface
 - 5% @ 2 in. in from surface

This would strongly indicate that for an exposure time
 of 12-24 hrs in a protected environment of approx 70°F
 and approx 30 to 20% rel. hum. the effect on the curing
 of fresh concrete would be virtually nil.



Telephone call

BY RLP/Frc / RCP/idea OF Stage 1
 TO DT/Hawaii OF SLP
 DATE 1-24-75 IS _____ TIME N/A
 SUBJECT VER 240 Early Concrete Curing

ROUTE JCH 9-11
MOR/PLE
 XC NCR binder
W/NCR 240
 JOB NO. 7220

pilasters, as per design, are 4'0" wide by 5'-6" deep inc. 18" wall.
 If the curing process is interrupted by lack of water (i.e., hydration ceases) it will delay the strength gain. However, the strength gain will resume when water is again available.
 From a graph in "Composition and Properties of Concrete" by Trovati, Darg read the following data:

- after 1 month curing in a 50% rel. humidity environment the per cent of evaporable (i.e., free or avail. for hydration) water will be
- 100% @ surface
 - 30% @ 1 in. in from surface
 - 5% @ 2 in. in from surface

This would strongly indicate that for an exposure time of 12-24 hrs in a protected environment of approx 70°F and approx 30 to 20% rel. hum. the effect on the curing of fresh concrete would be virtually nil.

NONCONFORMANCE REPORT

2. DRAWING/PART NO. Spec. 7220-C-231		REV. 5	7. PROJECT NO. 7220		12. REPORTED BY <i>J. Pittman</i>	DATE 12-10-74	1. PAGE 1 OF 2	14. NCR NO. 24		
3. ITEM DESCRIPTION Damaged Concrete		8. ITEM LOCATION Base Mat Cont. #1		13. VALIDATED BY <i>R. Be...</i>	DATE 12/10/74	25. DISPOSITION CONCURRENCE				
4. SERIAL NUMBER N/A		9. STARTUP SYSTEM NO. N/A		15. REPLACEMENT PART NO. N/A		REWORK <input checked="" type="checkbox"/>	REJECT <input type="checkbox"/>	REPAIR <input type="checkbox"/>	USE AS IS <input type="checkbox"/>	DOC. <input type="checkbox"/>
5. PURCHASE ORDER NO. N/A		10. QC FIELD INSPECTION PLAN NO. C-231-241		16. REPLACEMENT SERIAL NO. N/A		PROJECT FIELD ENGINEER <i>[Signature]</i>		DATE 12-13-74		
6. CONTRACTOR/LOCATION N/A		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		17. SOURCE Construction		PROJECT ENGINEER <i>[Signature]</i>		DATE 12/13/74		
18. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR										

19. NONCONFORMING CONDITION:

A crack 2" to 4" deep, extending from azimuth 30° to 42° (approx. 12' long) outside & adjacent to 4" embedded beam for knuckle plate, was discovered during const. joint cleanup by Q.C. & F.E. surveillance. Cause of crack is unknown. Work to evaluate damage to concrete has started. "Q" no. is 1.205.

20. <input checked="" type="checkbox"/> FIELD DISPOSITION <input type="checkbox"/> FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING		21. FIELD DISPOSITION RESULTS:	
<p>REWORK in accordance with procedure outlined in Specification 7220-C-231. All cracked and hollow sounding areas have been chipped back to sound concrete and removed. The rework of this area will be effected when the first lift of exterior containment wall is poured by accomplishing the following:</p> <p>1. The surface has been properly prepared, that is, the surface and edges have been "squared off" and all loose concrete removed.</p> <p style="text-align: center;">See Attached Sheet</p>		<p>REPLACEMENT OF CONCRETE ACCOMPLISHED</p> <p>is ALONG WITH PLACEMENT</p> <p>C(601-92)G' F.E.P #C-231-2-4</p> <p># C-231-3-459. <i>[Signature]</i></p> <p style="text-align: right;">2/7/75</p>	

22. ENGINEERING DISPOSITION		23. ENGINEERING DISPOSITION RESULTS:	

24. IS DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES. SEE ATTACHED:		26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP		27. QC ACCEPTANCE	
DRAWING _____ REV. _____ DCN _____	26. REMARKS _____	DATE _____		QC ENGINEER <i>[Signature]</i> 2/7/75	
SPEC. _____ REV. _____ ADD. _____				AUTHORIZED INSPECTOR _____ DATE _____	

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

QC-G3-2

Block 20 Continued

2. In conjunction with the first lift of exterior wall placement, the surface of the area will be covered with grout and a 6000 psi class concrete will be used for replacement.

Expected implementation date is by Feb. 1, 1975.

Richard Spate
12/10/74

NONCONFORMANCE REPORT

1. PAGE 1 OF 1	NCR NO: 276		
25. DISPOSITION CONCURRENCE			
REWORK	REJECT	REPAIR	USE AS IS
			X
PROJECT FIELD ENGINEER <i>J.C. Salzman</i> 2-7-75		PROJECT ENGINEER <i>M. J. Hensley</i> 2-4-75	
PROJECT FIELD QC ENGINEER <i>J. P. Betts</i> 2-7-75		PROJECT ENGINEER <i>M. J. Hensley</i> 2-7-75	
AUTHORIZE INSPECTOR _____		_____	

2. DRAWING 7220-C-324	REV. 10	7. PROJECT NO. 7220	12. REPORTED BY <i>J.P. Betts</i>	DATE 1/28/75
3. ITEM DESCRIPTION Rebar - #11 Bundles	8. ITEM LOCATION Containment Wall - Unit #2	13. VALIDATED BY <i>J. Hensley</i>	DATE 1-28-75	
4. SERIAL NUMBER N/A	9. STARTUP SYSTEM NO. N/A	15. REPLACEMENT PART NO. N/A	REV.	
5. PURCHASE ORDER NO. 7220-C-39AC	10. QC FIELD INSPECTION PLAN NO. C-231-2	16. REPLACEMENT SERIAL NO. N/A		
6. CONTRACTOR/LOCATION N/A	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Construction		

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

19. NONCONFORMING CONDITION:
 8-2 #11 bundled hauch bars were cut off to make room for the penetrations welded to the liner plate at El. 596'-0 in Reactor Building #2. The attached Drawing FSK-C-296 shows the #11 bars that were cut off. These bars do not conform to Section A of Drawing C-324, Rev. 10. The Q number for rebar is 1.103. The item was noted during liner plate installation record review.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

USE AS IS. Field engineering calculated that since #18 @ 12 are required, it would take ~~348~~ 468 #18 bars or 468 #11 bundles to meet the design requirements. We have installed 476 #11 bundles and as such, we cut the tails of 8 bundles necessary to install the liner plate. Therefore the design requirements are still met. *J.P. Betts 1/28/75*

Ref. BEBC-442 Attached

22. ENGINEERING DISPOSITION
has
 Engineering *has* evaluated the as-built rebar condition for Unit #2 Containment Wall and found it is structurally adequate as we had stated in BEBC-442 dated 8/8/74. We, therefore, concur with the field recommendation to use as is. *1/23/75 J.C. Salzman 2/3/75*

21. FIELD DISPOSITION RESULTS:

23. ENGINEERING DISPOSITION RESULT:

24. IS DESIGN CHANGE REQUIRED <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP	27. QC ACCEPTANCE <i>J.P. Betts</i> 2/10/75 QC ENGINEER DATE
DRAWING _____ REV. _____ DCN _____	REMARKS _____	AUTHORIZED INSPECTOR _____ DATE _____
SPEC. _____ REV. _____ ADD. _____		

ORIGINATOR

Bechtel Associates Professional

Inter-office Memorandum

BEBC - 442

To E. E. Felton
 Subject Midland Plant Units 1 & 2
 Job No. 7220
 Reactor Building #2 Reinforcing Steel
 Copies to File: C-0294, C-2122, 0274

Date August 8, 1974
 From R. L. Castleberry
 Of Engineering
 At Ann Arbor

J. Hink

Reference: (1) IOM, E. Felton to P. Martinez, dated June 21, 1974,
 BCBE-383 333

We have reviewed the as built condition described in Reference 1 concerning cutting the tail of 8-2#11 inclined bundled bars which interfere with penetrations at elevation 596'-0" in Reactor Building #2.

We request that you issue an NCR for the above mentioned subject since it was a deviation from the design drawing. Our review has indicated that the as built condition is structurally adequate, and we will approve the NCR to "use-as-is" when it is received in our office.

RECEIVED

AUG 12 1974

R. L. Castleberry
 R. L. Castleberry

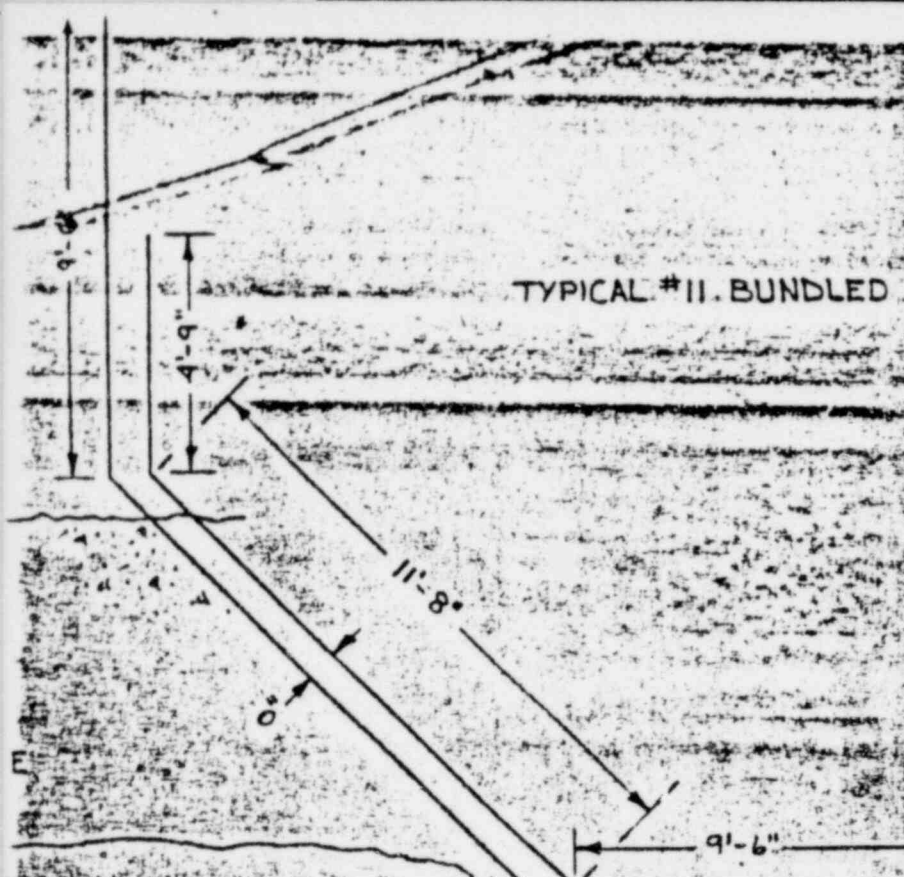
TRT/kb

BECHTEL POWER CORP.
 JOB 7220

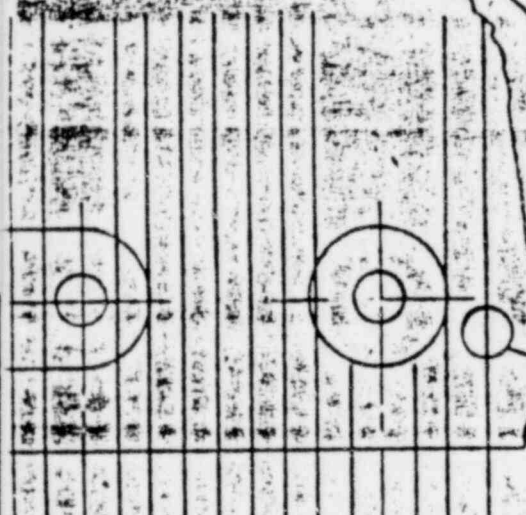
PER _____

DR 7/20	ROUTING	FC MGR.	FSUP	PFING	APFENG	COST MGR.	APFAC	AREA CA	AREA ADP	AREA C	AREA D	AREA E	AREA F	AREA G	AREA H	AREA I	AREA J	AREA K	AREA L	AREA M	AREA N	AREA O	AREA P	AREA Q	AREA R	AREA S	AREA T	AREA U	AREA V	AREA W	AREA X	AREA Y	AREA Z	AREA AA	AREA AB	AREA AC	AREA AD	AREA AE	AREA AF	AREA AG	AREA AH	AREA AI	AREA AJ	AREA AK	AREA AL	AREA AM	AREA AN	AREA AO	AREA AP	AREA AQ	AREA AR	AREA AS	AREA AT	AREA AU	AREA AV	AREA AW	AREA AX	AREA AY	AREA AZ	AREA BA	AREA BB	AREA BC	AREA BD	AREA BE	AREA BF	AREA BG	AREA BH	AREA BI	AREA BJ	AREA BK	AREA BL	AREA BM	AREA BN	AREA BO	AREA BP	AREA BQ	AREA BR	AREA BS	AREA BT	AREA BU	AREA BV	AREA BV	AREA BW	AREA BX	AREA BY	AREA BZ	AREA CA	AREA CB	AREA CC	AREA CD	AREA CE	AREA CF	AREA CG	AREA CH	AREA CI	AREA CJ	AREA CK	AREA CL	AREA CM	AREA CN	AREA CO	AREA CP	AREA CQ	AREA CR	AREA CS	AREA CT	AREA CU	AREA CV	AREA CW	AREA CX	AREA CY	AREA CZ	AREA DA	AREA DB	AREA DC	AREA DD	AREA DE	AREA DF	AREA DG	AREA DH	AREA DI	AREA DJ	AREA DK	AREA DL	AREA DM	AREA DN	AREA DO	AREA DP	AREA DQ	AREA DR	AREA DS	AREA DT	AREA DU	AREA DV	AREA DW	AREA DX	AREA DY	AREA DZ	AREA EA	AREA EB	AREA EC	AREA ED	AREA EE	AREA EF	AREA EG	AREA EH	AREA EI	AREA EJ	AREA EK	AREA EL	AREA EM	AREA EN	AREA EO	AREA EP	AREA EQ	AREA ER	AREA ES	AREA ET	AREA EU	AREA EV	AREA EW	AREA EX	AREA EY	AREA EZ	AREA FA	AREA FB	AREA FC	AREA FD	AREA FE	AREA FF	AREA FG	AREA FH	AREA FI	AREA FJ	AREA FK	AREA FL	AREA FM	AREA FN	AREA FO	AREA FP	AREA FQ	AREA FR	AREA FS	AREA FT	AREA FU	AREA FV	AREA FW	AREA FX	AREA FY	AREA FZ	AREA GA	AREA GB	AREA GC	AREA GD	AREA GE	AREA GF	AREA GG	AREA GH	AREA GI	AREA GJ	AREA GK	AREA GL	AREA GM	AREA GN	AREA GO	AREA GP	AREA GQ	AREA GR	AREA GS	AREA GT	AREA GU	AREA GV	AREA GW	AREA GX	AREA GY	AREA GZ	AREA HA	AREA HB	AREA HC	AREA HD	AREA HE	AREA HF	AREA HG	AREA HH	AREA HI	AREA HJ	AREA HK	AREA HL	AREA HM	AREA HN	AREA HO	AREA HP	AREA HQ	AREA HR	AREA HS	AREA HT	AREA HU	AREA HV	AREA HW	AREA HX	AREA HY	AREA HZ	AREA IA	AREA IB	AREA IC	AREA ID	AREA IE	AREA IF	AREA IG	AREA IH	AREA II	AREA IJ	AREA IK	AREA IL	AREA IM	AREA IN	AREA IO	AREA IP	AREA IQ	AREA IR	AREA IS	AREA IT	AREA IU	AREA IV	AREA IW	AREA IX	AREA IY	AREA IZ	AREA JA	AREA JB	AREA JC	AREA JD	AREA JE	AREA JF	AREA JG	AREA JH	AREA JI	AREA JJ	AREA JK	AREA JL	AREA JM	AREA JN	AREA JO	AREA JP	AREA JQ	AREA JR	AREA JS	AREA JT	AREA JU	AREA JV	AREA JW	AREA JX	AREA JY	AREA JZ	AREA KA	AREA KB	AREA KC	AREA KD	AREA KE	AREA KF	AREA KG	AREA KH	AREA KI	AREA KJ	AREA KK	AREA KL	AREA KM	AREA KN	AREA KO	AREA KP	AREA KQ	AREA KR	AREA KS	AREA KT	AREA KU	AREA KV	AREA KW	AREA KX	AREA KY	AREA KZ	AREA LA	AREA LB	AREA LC	AREA LD	AREA LE	AREA LF	AREA LG	AREA LH	AREA LI	AREA LJ	AREA LK	AREA LL	AREA LM	AREA LN	AREA LO	AREA LP	AREA LQ	AREA LR	AREA LS	AREA LT	AREA LU	AREA LV	AREA LW	AREA LX	AREA LY	AREA LZ	AREA MA	AREA MB	AREA MC	AREA MD	AREA ME	AREA MF	AREA MG	AREA MH	AREA MI	AREA MJ	AREA MK	AREA ML	AREA MM	AREA MN	AREA MO	AREA MP	AREA MQ	AREA MR	AREA MS	AREA MT	AREA MU	AREA MV	AREA MW	AREA MX	AREA MY	AREA MZ	AREA NA	AREA NB	AREA NC	AREA ND	AREA NE	AREA NF	AREA NG	AREA NH	AREA NI	AREA NJ	AREA NK	AREA NL	AREA NM	AREA NN	AREA NO	AREA NP	AREA NQ	AREA NR	AREA NS	AREA NT	AREA NU	AREA NV	AREA NW	AREA NX	AREA NY	AREA NZ	AREA OA	AREA OB	AREA OC	AREA OD	AREA OE	AREA OF	AREA OG	AREA OH	AREA OI	AREA OJ	AREA OK	AREA OL	AREA OM	AREA ON	AREA OO	AREA OP	AREA OQ	AREA OR	AREA OS	AREA OT	AREA OU	AREA OV	AREA OW	AREA OX	AREA OY	AREA OZ	AREA PA	AREA PB	AREA PC	AREA PD	AREA PE	AREA PF	AREA PG	AREA PH	AREA PI	AREA PJ	AREA PK	AREA PL	AREA PM	AREA PN	AREA PO	AREA PP	AREA PQ	AREA PR	AREA PS	AREA PT	AREA PU	AREA PV	AREA PW	AREA PX	AREA PY	AREA PZ	AREA QA	AREA QB	AREA QC	AREA QD	AREA QE	AREA QF	AREA QG	AREA QH	AREA QI	AREA QJ	AREA QK	AREA QL	AREA QM	AREA QN	AREA QO	AREA QP	AREA QQ	AREA QR	AREA QS	AREA QT	AREA QU	AREA QV	AREA QW	AREA QX	AREA QY	AREA QZ	AREA RA	AREA RB	AREA RC	AREA RD	AREA RE	AREA RF	AREA RG	AREA RH	AREA RI	AREA RJ	AREA RK	AREA RL	AREA RM	AREA RN	AREA RO	AREA RP	AREA RQ	AREA RR	AREA RS	AREA RT	AREA RU	AREA RV	AREA RW	AREA RX	AREA RY	AREA RZ	AREA SA	AREA SB	AREA SC	AREA SD	AREA SE	AREA SF	AREA SG	AREA SH	AREA SI	AREA SJ	AREA SK	AREA SL	AREA SM	AREA SN	AREA SO	AREA SP	AREA SQ	AREA SR	AREA SS	AREA ST	AREA SU	AREA SV	AREA SW	AREA SX	AREA SY	AREA SZ	AREA TA	AREA TB	AREA TC	AREA TD	AREA TE	AREA TF	AREA TG	AREA TH	AREA TI	AREA TJ	AREA TK	AREA TL	AREA TM	AREA TN	AREA TO	AREA TP	AREA TQ	AREA TR	AREA TS	AREA TT	AREA TU	AREA TV	AREA TW	AREA TX	AREA TY	AREA TZ	AREA UA	AREA UB	AREA UC	AREA UD	AREA UE	AREA UF	AREA UG	AREA UH	AREA UI	AREA UJ	AREA UK	AREA UL	AREA UM	AREA UN	AREA UO	AREA UP	AREA UQ	AREA UR	AREA US	AREA UT	AREA UY	AREA UZ	AREA VA	AREA VB	AREA VC	AREA VD	AREA VE	AREA VF	AREA VG	AREA VH	AREA VI	AREA VJ	AREA VK	AREA VL	AREA VM	AREA VN	AREA VO	AREA VP	AREA VQ	AREA VR	AREA VS	AREA VT	AREA VU	AREA VV	AREA VW	AREA VX	AREA VY	AREA VZ	AREA WA	AREA WB	AREA WC	AREA WD	AREA WE	AREA WF	AREA WG	AREA WH	AREA WI	AREA WJ	AREA WK	AREA WL	AREA WM	AREA WN	AREA WO	AREA WP	AREA WQ	AREA WR	AREA WS	AREA WT	AREA WU	AREA WV	AREA WW	AREA WX	AREA WY	AREA WZ	AREA XA	AREA XB	AREA XC	AREA XD	AREA XE	AREA XF	AREA XG	AREA XH	AREA XI	AREA XJ	AREA XK	AREA XL	AREA XM	AREA XN	AREA XO	AREA XP	AREA XQ	AREA XR	AREA XS	AREA XT	AREA XU	AREA XV	AREA XW	AREA XX	AREA XY	AREA XZ	AREA YA	AREA YB	AREA YC	AREA YD	AREA YE	AREA YF	AREA YG	AREA YH	AREA YI	AREA YJ	AREA YK	AREA YL	AREA YM	AREA YN	AREA YO	AREA YP	AREA YQ	AREA YR	AREA YS	AREA YT	AREA YU	AREA YV	AREA YW	AREA YX	AREA YY	AREA YZ	AREA ZA	AREA ZB	AREA ZC	AREA ZD	AREA ZE	AREA ZF	AREA ZG	AREA ZH	AREA ZI	AREA ZJ	AREA ZK	AREA ZL	AREA ZM	AREA ZN	AREA ZO	AREA ZP	AREA ZQ	AREA ZR	AREA ZS	AREA ZT	AREA ZU	AREA ZV	AREA ZW	AREA ZX	AREA ZY	AREA ZZ	DATE	TICKLER
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TYPICAL #11 BUNDLED HAUNCH BARS

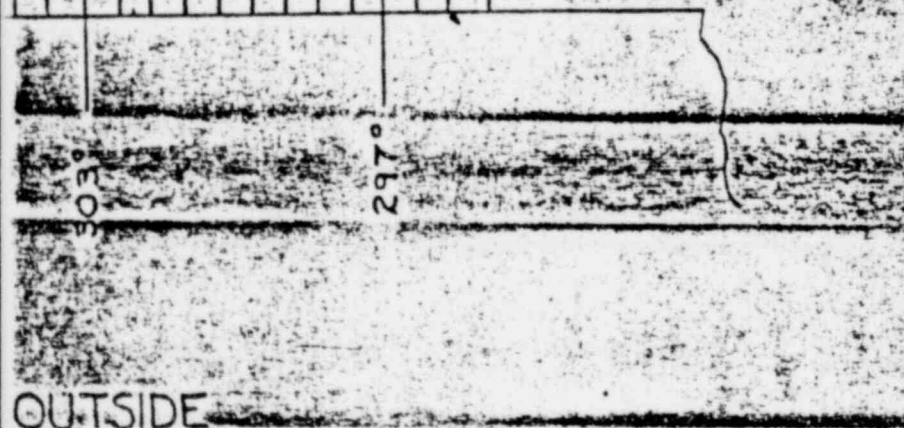


DETAIL-A



DETAIL-A (TYP)

Uncontrolled



△	6-27-74	CHANGED TAIL LENGTH AND ELEVATION	DS	WJ
○	6-20-74	AS BUILT	DS	WJ
NO.	DATE	REVISIONS	BY	CHK. A

SCALE: 1/4" = 1'-0"

DRAWN BY: D. SPIKER

BECHTEL POWER CORP.
MIDLAND, MICH.

AS BUILT OF HAUNCH BARS
FROM 295° TO 330° IN
REACTOR BLDG. NO. 2

7220

DRAWING NO.
FSK-C-296

REV.
1

BELOW

NONCONFORMANCE REPORT

1. PAGE 1 OF 1	14. NCR 279
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	USE AS IS
DDC	
PROJECT FIELD ENGINEER <i>J. Hink</i> 2/12/75 DATE PROJECT ENGINEER <i>C. Yen</i> 2/5/75 DATE PROJECT FIELD QC ENGINEER <i>R. Grote</i> 2-12-75 DATE AUTHORIZED INSPECTOR DATE	

2. DRAWING/PART NO. Specs. 7220-C-111	REV. 6	7. PROJECT NO. 7220	12. REPORTED BY <i>C.F. [Signature]</i>	DATE 1/30/75
1. ITEM DESCRIPTION Liner Plate	8. ITEM LOCATION Containment #1	13. VALIDATED BY <i>[Signature]</i>	DATE 1/30/75	
4. SERIAL NUMBER N/A	9. STARTUP SYSTEM NO. N/A	15. REPLACEMENT PART NO. N/A	REV.	
8. PURCHASE ORDER NO. N/A	10. QC FIELD INSPECTION PLAN NO. N/A C-231-2-431	16. REPLACEMENT SERIAL NO. N/A		
5. CONTRACTOR/LOCATION N/A	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Construction		

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

19. NONCONFORMING CONDITION: During a routine inspection of liner plate tolerances prior to the concrete pour, two small areas are noted to be in excess of allowable tolerances of 7220-C-111 Rev. 6 Para. 8.1.2. When using the 8'0" template, the liner plate extends 1/4" beyond allowable limits. The areas are at 180° El. 595'6" and 200° El. 593'6" "Q" No. is 1.109. 1 QC HOLD TAG APPLIED.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Use as is - The areas noted are approximately 4" X 6" in size. Probable cause was weld heat concentration in this area. Attempts to straighten the areas may cause more harm to the plate than good. Work may continue.

Richard Grote 1/31/75

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION
Engineering has reviewed the out of tolerance problem on the containment liner plate as stated in block # 19 above. A further telecon discussion between J.Hink/C.Yen/R.Grote indicates that the bulge size is about 5" by 2'-0 and is bulged outward (i.e. larger radius) R.Grote also indicates that the weld between L 3x2 anchor and liner plate in the bulged areas did not crack and remains intact. Engineering has evaluated the above condition and concludes that the outward bulge on the plate will not affect the structural adequacy of the containment liner plate design. Therefore, we recommend

23. ENGINEERING DISPOSITION RESULTS:

24. IS DESIGN CHANGE REQUIRED TO USE THE PLATE AS IS? NO YES, SEE ATTACHED:

DRAWING _____ REV. _____ DCN _____

SPEC. _____ REV. _____ ADD _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

R. Grote 2/13/75
QC ENGINEER DATE

AUTHORIZED INSPECTOR DATE

10088-1

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

QC-G3-2

REC-1

NONCONFORMANCE REPORT

1. PAGE 1 OF 2	14. NCR NO. 281			
25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	USE AS IS	DOC.
				X
PROJECT FIELD ENGINEER		DATE		
<i>J. C. Salas</i>		2-10-75		
PROJECT ENGINEER		DATE		
<i>M. Connelly</i>		2-10-75		
AUTHORIZED INSPECTOR		DATE		

2. DRAWING/PART NO. Spec. G-21	REV. 0	7. PROJECT NO. 07220	12. REPORTED BY J. Aldridge	DATE 2/3/75
3. ITEM DESCRIPTION 90 FT. 304 S.S. Flat Bar 1/8"	8. ITEM LOCATION X 1" QC Hold Area	9. STARTUP SYSTEM NO. N/A	13. VALIDATED BY <i>M. Connelly</i>	DATE 2-3-75
4. SERIAL NUMBER N/A	10. QC FIELD INSPECTION PLAN NO. B-1-R-17 Rev. 0	15. REPLACEMENT PART NO. N/A	16. REPLACEMENT SERIAL NO. N/A	REV.
5. PURCHASE ORDER NO. 7220-F-11187	11. ASME CODE ITEM	17. SOURCE Vendor		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
6. CONTRACTOR/LOCATION J. T. Ryerson, Detroit, Michigan				
18. ROUTING INSTRUCTIONS: <input type="checkbox"/> ROUTE TO FIELD ENGINEERING <input checked="" type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR				

19. NONCONFORMING CONDITION: IOM BEBC-491 dated August 23, 1974, "Requirements for Bulk Material and/or Shelf Items for Midland Project". The requirements for carbon steel and stainless steel shapes, plates and bars are:

1. Certificate of Conformance.
2. Material Test Reports.
3. Receiving Inspection.
4. Traceability.

Continued on Page 2

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Material Supervisor to obtain missing documentation.

J. Aldridge
2-10-75

21. FIELD DISPOSITION RESULTS:

REC'D STATEMENT OF CONFORMANCE 2-10-75

J. Aldridge
2-10-75

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULTS:

24. IS DESIGN CHANGE REQUIRED NO YES, SEE ATTACHE'

DRAWING _____ REV. _____ DCN _____

SPEC _____ REV. _____ ADD _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

J. Aldridge 2-10-75

QC ENGINEER DATE

AUTHORIZED INSPECTOR DATE

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

QC-G3-2

EL. 591'-6"

BAR WITH LONG TAIL CUT TO
EL. 594'-8", OTHER BAR IN
BUNDLE NOT CUT

LINER PL

EL. 602'-0"



3'
GAP DUE TO
COLUMN &
STRONG BACK
BASEPLATES

NETRATIONS AT

EL. 596'-0"

EL. 594'-8" (TYP)

EL. 593'-0"

EL. 591'-6"

CONCRETE
BASE SLAB

327

328

316

313

307

DEVELOPED VIEW LOOKING FROM

Block No. 19 Continued.

Contrary to the above we have not received a Certificate of Conformance. Nonconformance noted during receipt inspection.

10000-2

QC-G13

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

BE-3

NONCONFORMANCE REPORT

1. PAGE 1 OF 2 14. NCF 202

2. DRAWING/PART NO. Part # See Block 19	REV.	7. PROJECT NO. 07220	11. ASME CODE ITEM <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	12. REPORTED BY R. A. Moray	DATE 2/5/75
3. ITEM DESCRIPTION Parts & Accessory to Reactor	8. ITEM LOCATION Vessel WHSE - Receiving Area		13. VALIDATED BY <i>[Signature]</i>	DATE 2/5/75	
4. SERIAL NUMBER See Block 19	9. STARTUP SYSTEM NO. N/A		15. REPLACEMENT PART NO. N/A	REV.	
5. PURCHASE ORDER NO. M-1.1	10. QC FIELD INSPECTION PLAN NO. MRI M-32		16. REPLACEMENT SERIAL NO. N/A		
6. CONTRACTOR/LOCATION B&W Midland, Michigan			17. SOURCE B&W		

28. DISPOSITION CONCURRENCE				
REWORK	RE/ECT	REPAIR	USE AS IS	DOC.
PROJECT FIELD ENGINEER			DATE	
PROJECT ENGINEER			DATE	
PROJECT FIELD QC ENGINEER			DATE	
AUTHORIZE INSPECTOR			DATE	

18. ROUTING INSTRUCTIONS: ROUTE TO FIELD ENGINEERING ROUTE TO MATERIAL SUPERVISOR B&W Site Rep.

19. NONCONFORMING CONDITION:

- The following material cannot be identified against B&W specifications and drawings.
 - 13 ea Stud Hole Sleeve "O" ring type 321 Mark # 7625-7
 - 1 ea Sleeve Spanner Wrench Mark # H-8
- Certificate of conformance not available for parts and accessories received 2/3/75. List of Material follows:

Continued on Page 2

20. <input type="checkbox"/> FIELD DISPOSITION	<input type="checkbox"/> FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING	21. FIELD DISPOSITION RESULTS:
22. ENGINEERING DISPOSITION		23. ENGINEERING DISPOSITION RESULTS:
24. IS DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES. SEE ATTACHED:		26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP
DRAWING _____ REV. _____ DCN _____	SPEC. _____ REV. _____ ADD. _____	REMARKS _____
27. QC ACCEPTANCE		
QC ENGINEER _____ DATE _____		
AUTHORIZED INSPECTOR _____ DATE _____		

10098-1

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

QC-G3-2

Block No. 19 Continued.

60 Studs	S/N 25
5 Studs (spares)	S/N 25
60 Castellated Nuts	S/N 26
5 Castellated Nuts (spares)	S/N 26
5 Closure Stud Washer sets (spares)	S/N 14 & 27
5 Measuring rods (spares)	S/N 85
60 Measuring rods	S/N 85
69 Sets adapted nut ring segments	S/N 120
58 Stud Hole Seal Plugs	S/N 74
5 Stud Hole Seal Plugs (spares)	S/N 74
2 Alignment Studs	S/N 75
60 Sets Washers	S/N 14 & 27
12 Blind Flanges	S/N 172
2 Sets Seal Plug Tools	S/N 127
16 Closure Head Key Bolts	S/N 32
12 Pipe Plugs	S/N 178
138 Hex Head Bolts 3/8 X 1 1/2	S/N 126
60 Stud Bottom Inserts	S/N 72
5 Stud Bottom Inserts (spares)	S/N 72
13 Stud Hole Sleeve "0" ring type 321	S/N 7625-7
2 Rubber "0" rings	S/N 70
58 Rubber "0" rings	S/N 69
5 Rubber "0" rings (spares)	S/N 69
1 Sleeve spanner wrench	S/N H-8
2 Castellated Nut Wrench	S/N 901
2 Monitoring pipe	S/N 13

Unit 2. "Q" No. 4.029. Nonconformance noted during receipt inspection copy 2

Original Hold tags applied.
 Copy Copy - Field Engineer
 Pink Copy - FOAE
 Goldenrod Copy - QC

NONCONFORMANCE REPORT

1. PAGE 1 OF 2	14. NCR NO. 2113			
25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	USE AS IS	DOC.
				X
PROJECT FIELD ENGINEER		DATE		
PROJECT ENGINEER		DATE		
<i>J. Connolly</i>		2-13-75		
PROJECT FIELD QC ENGINEER		DATE		
AUTHORIZED INSPECTOR		DATE		

2. DRAWING/PART NO. Spec. C-66	REV. 3	7. PROJECT NO. 07220	12. REPORTED BY <i>R. A. Moray</i>	DATE 2/6/75
3. ITEM DESCRIPTION 100 pcs. 6" X 15.5# W.F. Beams	8. ITEM LOCATION QC Hold Area		13. VALIDATED BY <i>R. A. Moray</i>	DATE 2/1/75
4. SERIAL NUMBER N/A	9. STARTUP SYSTEM NO. N/A		15. REPLACEMENT PART NO. N/A	REV. 1
5. PURCHASE ORDER NO. 7220-F-9643	10. QC FIELD INSPECTION PLAN NO. C-66-R-48 Rev. 1		16. REPLACEMENT SERIAL NO. N/A	
6. CONTRACTOR/LOCATION J. T. Ryerson/Detroit, Michigan	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		17. SOURCE Vendor	

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

19. NONCONFORMING CONDITION: Specification 7220-C-66 Rev. 3 paragraph 7.3 states, "The seller shall furnish documentation to the buyer in accordance with Appendix B (Form G-321-D)". Contrary to the above we have not received the documents required by Form G-321-D for the 100 pcs. of 6" X 15.5# W.F. Beams received on 8/15/74, AEO-297. The documentation required is:

1. Certified Material Test Reports (to ASTM A-36).

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

MATERIAL COORDINATOR TO OBTAIN NECESSARY DOCUMENTATION.
J. T. Ryerson
2-12-75

Continued on Page 2

21. FIELD DISPOSITION RESULTS:
Certified Material Test Reports received and is acceptable.
R. A. Moray
2-13-75

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULTS:

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

DRAWING _____ REV. _____ DCN _____

SPEC. _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

QC ENGINEER *R. A. Moray* DATE 2-13-75

AUTHORIZED INSPECTOR _____ DATE _____

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

Block 19 Continued.

2. Material Certificate of Compliance.

Nonconformance noted during receipt inspection. Units / of 2. "D" No. One Tag applied.

Stock Structural Steel

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

BEL

NONCONFORMANCE REPORT

2. DRAWING/PART NO. Spec. C-66	REV. 3	7. PROJECT NO. 07220	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
3. ITEM DESCRIPTION 25 pcs. 6" X 10-5# Channel		8. ITEM LOCATION QC Hold Area	12. VALIDATED BY <i>[Signature]</i>
4. SERIAL NUMBER N/A		9. STARTUP SYSTEM NO. N/A	13. REPLACEMENT PART NO. N/A
5. PURCHASE ORDER NO. 7220-F-10366		10. QC FIELD INSPECTION PLAN NO. C-66-R-63 Rev. 0	14. REPLACEMENT SERIAL NO. N/A
6. CONTRACTOR/LOCATION J. T. Ryerson/Detroit, Michigan			15. SOURCE Vendor

1. PAGE 1 OF 2	14. NCR NO. 284			
25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	USE AS IS	QC
				X
PROJECT FIELD ENGINEER	DATE			
PROJECT ENGINEER	DATE			
PROJECT FIELD QC ENGINEER	DATE			
AUTHORIZED INSPECTOR	DATE			

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

19. NONCONFORMING CONDITION: Specification 7220-C-66 Rev. 3 paragraph 7.3 states, "The seller shall furnish documentation to the buyer in accordance with Appendix B (Form G-321-D)." Contrary to the above we have not received the documents required by Form G-321-D or Form G-321-D (Quality Verification Document Transmittal) for the 25 pcs. of 6" X 10-5# Channel received on 10/28/74, AEO-498. The documentation required other than the Form G-321-D are:

1. Certified Material Test Reports (to ASTM A-36).

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Continued on Page 2

MATERIAL COORDINATOR TO OBTAIN NECESSARY DOCUMENTATION.
[Signature]
2-12-75

22. ENGINEERING DISPOSITION	21. FIELD DISPOSITION RESULTS:
23. ENGINEERING DISPOSITION RESULTS:	
24. IS DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP
DRAWING _____ REV. _____ DCN _____	REMARKS _____
SPEC _____ REV. _____ ADD. _____	
27. QC ACCEPTANCE	
QC ENGINEER _____ DATE _____	
AUTHORIZED INSPECTOR _____ DATE _____	

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

254

Block No. 19 Continued.

2. Material Certificate of Compliance.

Two tags applied.

Nonconformance noted during receipt inspection.

Units 1012 - 9" dia - Stack Structural Steel

10000-1

QC-G33

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

BECHTEL

NONCONFORMANCE REPORT

2. DRAWING/PART NO. Spec. M-204	REV. 2	7. PROJECT NO. 07220	12. REQUESTED BY R. A. Moray	DATE 2/6/75
3. ITEM DESCRIPTION 3/4" Pipe Fittings	8. ITEM LOCATION QC Hold Area	13. VALIDATED BY J. Connelly	DATE 2-7-75	
4. SERIAL NUMBER See Block 19	9. STARTUP SYSTEM NO. N/A	14. REPLACEMENT PART NO. N/A	REV.	
5. PURCHASE ORDER NO. 7220-F-10577	10. QC FIELD INSPECTION PLAN NO. M-204-R-8	15. REPLACEMENT SERIAL NO. N/A	17. SOURCE Vendor	
6. CONTRACTOR/LOCATION Capitol Pipe & Steel Products/Chicago, Ill.	11. ASME CODE ITEM <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			

1. PAGE 1 OF 3	14. NCR NO. 285			
25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	USE AS IS	QC
PROJECT FIELD ENGINEER J. Connelly		DATE 2-17-75		
PROJECT FIELD QC ENGINEER J. Connelly		DATE 2-17-75		
AUTHORIZED INSPECTOR		DATE		

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

19. NONCONFORMING CONDITION: Nonconformance written against the following SA 182 F 304 ASME III Class 2 material:

65-3/4" 90° Ell SW S/S 3,000# - Heat Codes GLG, GXF, GVB

15-3/4" 45° Ell SW S/S 3,000# - Heat Codes GYA, GYR

15-3/4" TEE SW S/S 3,000# - Heat Code GXK

- Purchase Order requires G-321-D to be used to transmit documentation.
- Purchase Order requires Material Test Reports for all material.

Continued on Page 2

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Return all fittings to vendor -- markings on fittings are not in accordance with ASME code requirements. *J. Jenkins 2/14/75*

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULTS:

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

DRAWING _____ REV. _____ DCN _____

SPEC _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____

AUTHORIZED INSPECTOR _____ DATE _____

10088-1

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

QC-G3-2

Block 19 Continued.

3. Specification M-204 paragraph 4.1.2 requires documentation to include time and temperature of heat treatment.
4. Spec. SA 182 and ASME III para. NB2150 requires marking of material to include material specification and grade, service rating, size and heat number or code.

Contrary to the above:

1. Completed G-321-D's have not been received.
2. Material Test Reports not available for 90° Ell with Heat Code GVB.
3. Material Test Reports received do not include time or temperature of heat treatment.
4. Marking of material is nonconforming as follows:

a. 65 3/4" 90° Ell's

3 - OK

1 - Size and Service Rating not clearing marked.

1 - Size not clearly marked.

10 - Specification not clearly marked.

20 - Specification service rating and size not clearly marked.

10 - Specification and size not clearly marked.

4 - Specification and heat code not clearly marked.

5 - Specification, heat code, size and service rating not clearly marked.

11 - Heat Code GVB not certified.

b. 15 3/4" 45° Ell's

4 - Specification not marked; size and service rating not clearly marked.

3 - Specification not marked; service rating not clearly marked.

4 - Specification not marked; service rating and heat code not clearly marked.

3 - Specification not marked; size, service rating and heat code not clearly marked.

1 - Specification not marked; size and heat code not clearly marked.

c. 15 3/4" TEE's

Continued on page 3

Block 19 Continued.

1 - OK

5 Specification not clearly marked.

3 Heat Code not clearly marked.

6 Specification & heat code not clearly marked.

Unit No. and "Q" No. not applicable. Fittings if accepted may be used for any HCB, HCC, HCD, GCB, FCD, FCB, ECD, ECB piping system. Nonconformance noted during receipt inspection. Two tags applied.

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

SECRET

RIXFORD

NONCONFORMANCE REPORT

2. DRAWING/PART NO. Spec. 7220-C-231		REV. 6	7. PROJECT NO. 07220	11. REPORTED BY J. C. Fitzgerald	DATE 2/10/75	1. PAGE 1 OF 2	14. NCR NO. 286
3. ITEM DESCRIPTION (2) Concrete Pads		8. ITEM LOCATION Pour #CC(593.5)e - Unit #		12. VALIDATED BY J. Connolly	DATE 2-10-75	25. DISPOSITION CONCURRENCE	
4. SERIAL NUMBER N/A		9. STARTUP SYSTEM NO. N/A		13. REPLACEMENT PART NO. N/A	REV.	REWORK	REJECT
5. PURCHASE ORDER NO. N/A		10. QC FIELD INSPECTION PLAN NO. CC(593.5)e		16. REPLACEMENT SERIAL NO. N/A		REPAIR	USE AS IS
6. CONTRACTOR/LOCATION N/A		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		17. SOURCE Construction		DATE	DATE
18. ROUTING INSTRUCTIONS:		<input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING		<input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR		DATE	DATE

19. NONCONFORMING CONDITION: Specification 7220-C-231 Rev. 6 Para. 13.2.4 and 14.1 states in part that, "During curing period concrete shall be adequately protected to maintain concrete surface temperature of no less than 50° F for a minimum of seven days and water cured also for first seven days." Contrary to the above, concrete temperature fell to approx. 35° F and moist curing was removed after the first three days. "Q" No. is 1.205. One Hold tag attached.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Field recommends to "use as is". The pads referenced in Block #3 are located in Cont. #2 and were placed on 02/04/75 to hold type 28 embeds to elevation during placement of the northwest portion of the concrete cover slab. The pads were within an enclosure and I did receive three (3) days of the specified cure. On (See Sheet 2)

22. ENGINEERING DISPOSITION

Engineering concurs with Field recommendation to use as is. *R.K. 2-19-75*
John E. Hinde 2-19-75

24. IS DESIGN CHANGE REQUIRED <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP	27. QC ACCEPTANCE <i>R.K. 2/30/75</i> DATE
DRAWING _____ REV. _____ DCN _____	REMARKS _____	AUTHORIZED INSPECTOR _____ DATE _____
SPEC _____ REV. _____ ADD. _____		

10098-1

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

QC-G3-2

NONCONFORMANCE REPORT (CONT'D)

BLOCK 20 CONTINUED:

the fourth day, curing was inadvertently discontinued. Wet burlap was removed and the temperature within the enclosure dropped to an estimated 36°F. Inspection of the concrete pad surface revealed it to be sound. No evidence of freezing exists. Chapter 1 of ACI 306 states that three (3) days of curing of 50°F temperatures are sufficient to enable concrete to withstand freezing temperatures if the concrete is not in a saturated condition. These short periods are allowable only provided there is sufficient subsequent curing to develop the expected design strength and provided the concrete is not subject to freezing in a saturated condition prior to attainment of the expected strength. No evidence of freezing exists. Curing will be continued for seven (7) days when the pads are embedded in the concrete cover slab. Work may proceed with setting of the embeds up to embedment in the cover slab.

Richard Steute
2/11/75

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

Block No. 20 Continued.

tachments. This is supported by paragraph 7.1.8 which authorizes such items as long as they are permanent and their installation controlled. It is Project Engineering's position that Field Engineering has the ability to authorize attachments (when determined necessary) if the installation complies with the requirements paragraph 7.1.8 places on permanent items.

Paragraph 7.2.1 (e) of Specification 7220-C-111 Rev. 6 specifically addresses welding of such items to the liner plate. "Miscellaneous clips, brackets, angles, etc. shall be welded to the liner plate using shielded metal arc welding Pl-A-Lh Rev. 0, or Pl-A-c Rev. 0 with the approval of the responsible Field Engineer." The welds referenced in Block 19 were made in accordance with welding procedure Pl-A-c Rev. 0. Based on the above, the condition identified in Block 19 is not a nonconformance.

Richard A. [unclear]
2/18/75

10000-2 QC-G3-3

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

NONCONFORMANCE REPORT

1. PAGE 1 OF 1	14. NC 2
25. DISPOSITION CONCURRENCE	
REWORK	REJECT
REPAIR	USE AS IS
OC	
PROJECT FIELD ENGINEER	DATE
PROJECT ENGINEER	DATE
PROJECT FIELD QC ENGINEER	DATE
AUTHORIZE INSPECTOR	DATE

2. Dwg/PART NO. 7220-C-208	REV. 4	7. PROJECT NO. 07220	12. REPORTED BY L. R. Albert	DATE 12/13/75	
3. ITEM DESCRIPTION #18 Reinforcing Steel		8. ITEM LOCATION QC Hold Area	13. VALIDATED BY <i>J. Connolly</i>	DATE 2-13-75	
4. SERIAL NUMBER Heat # KE-2041	9. STARTUP SYSTEM NO. N/A		14. REPLACEMENT PART NO. N/A	REV.	
5. PURCHASE ORDER NO. N/A	10. QC FIELD INSPECTION PLAN NO. C-39R-156		15. REPLACEMENT SERIAL NO. N/A		
6. CONTRACTOR/LOCATION Inland Ryerson		11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Supplier		

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

19. NONCONFORMING CONDITION: Specification 7220-C-208 Rev. 4 Section 8.1 states, "That reinforcing steel shall conform to ASTM A-615". Table 2 of ASTM A-615-72 requires the minimum yield of grade 60 reinforcing to be 60,000 PSI. Contrary to the above a test sample obtained from #18 reinforcing steel of Heat # KE-2041 yielded at 59,500 PSI. Nonconformance noted during user testing for overshipment of this heat. One Hold Tag applied. "Q" # is 1.10?

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Two user's tests were made on Heat # KE 2041 in Oct., 1974 with resulting yield strengths of 61.3 KSI on each. The user's test referenced in Block #19 was made due to an additional shipment from that heat. Tolerance on the tensile testing machine is plus or minus 1% (for a yield of 60 KSI = + 600 psi). Based upon the satisfactory user's tests in Oct., 1974 and the established tolerances of the

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

Continued on Page 2

23. ENGINEERING DISPOSITION RESULTS:

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

DRAWING _____ REV. _____ DCN _____

SPEC. _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____

AUTHORIZED INSPECTOR _____ DATE _____

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

QC-G3-2

B. No. 20 Continued.

tensile testing machine, the field recommends to use Heat # KE 2041 "as is".

Richard Dote
2/18/75

NONCONFORMANCE REPORT

1. PAGE 1 OF <u>XK 2</u>	18. NCR NO. <u>28</u>			
25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	USE AS IS	DOC
PROJECT FIELD ENGINEER		DATE		
PROJECT ENGINEER		DATE		
PROJECT FIELD QC ENGINEER		DATE		
AUTHORIZED INSPECTOR		DATE		

2. DRAWING/PART NO. <u>Spec. 7220-C-38</u>	REV. <u>5</u>	7. PROJECT NO. <u>07220</u>	12. REPORTED BY <u>R. A. Moray</u>	DATE <u>2/18/75</u>
3. ITEM DESCRIPTION <u>Aux. Bldg. Structural Steel</u>	8. ITEM LOCATION <u>QC Hold Area</u>	13. VALIDATED BY <u>J. L. Kelly</u>	DATE <u>2-18-75</u>	
4. SERIAL NUMBER <u>Beam No's. 204B3^C & 310B2^D</u>	9. STARTUP SYSTEM NO. <u>N/A</u>	14. REPLACEMENT PART NO. <u>N/A</u>	REV.	
5. PURCHASE ORDER NO. <u>7220-C-38AC Shipment C-17</u>	10. QC FIELD INSPECTION PLAN NO. <u>C-38-R-28 Rev. 0</u>	15. REPLACEMENT SERIAL NO. <u>N/A</u>		
6. CONTRACTOR/LOCATION <u>Ingalls Iron Works, Verona, Pa.</u>	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	16. SOURCE <u>Vendor</u>		

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

19. NONCONFORMING CONDITION:
 The following two beams were found to be damaged upon receipt inspection:
 204B3^C Bent Angle & cracked weld
 310B2^D Bent Angle & cracked weld
 "Q" No. is 1,201. 2 Hold Tags applied.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Damaged structural beams 204B3C and 310B2D will be repaired in accordance with the provisions of AISC Specification paragraph 1.23.1, page 5-50 and page 6-12; AWS D1.1 paragraphs 3.7.2.4, 3.7.3, and 3.7.6 and Bechtel Welding procedure P1ALH (structural). All repair work to be done will be documented in accordance with field procedure --See Sheet 2--

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULTS:

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

DRAWING _____ REV. _____ DCN _____

SPEC _____ REV. _____ ADD _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER CRAP

REMARKS

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____

AUTHORIZED INSPECTOR _____ DATE _____

Block 20 Continued:

FLC-6, Rev. 0, "Instructions for Field Fabrication of Structural Steel."

Expected implementation date - March 20, 1975.

W. J. Brown 2/21/75

NONCONFORMANCE REPORT

1. PAGE 1 OF 1	11. NCR NO. 290			
25. DISPOSITION CONCURRENCE				
REWORK	REJECT	REPAIR	USE AS IS	DISPOSE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PROJECT FIELD ENGINEER <i>J. Clancy</i>			DATE 2-21-75	
PROJECT ENGINEER <i>J. Conolly</i>			DATE 2-24-75	
PROJECT FIELD QC ENGINEER _____			DATE _____	
AUTHORIZED INSPECTOR _____			DATE _____	

2. DRAWING/REV. NO. 7220-C-281 2	7. PROJECT NO. 07220	12. REPORTED BY <i>R. Reverem</i>	DATE 2/21/75
3. ITEM DESCRIPTION Reinforcing Steel	8. ITEM LOCATION Aux. Building	13. VALIDATED BY <i>R. Be...</i>	DATE 2/21/75
4. SERIAL NUMBER N/A	9. STARTUP SYSTEM NO. N/A	15. REPLACEMENT PART NO. N/A	REV. _____
5. PURCHASE ORDER NO. N/A	10. QC FIELD INSPECTION PLAN NO. N/A C-231-2-372	16. REPLACEMENT SERIAL NO. N/A	
6. CONTRACTOR/LOCATION N/A	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Construction	

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

19. NONCONFORMING CONDITION: The floor slab at El. 599' - 0 and the F line wall below were poured without providing vertical dowels for the additional # 11 vertical bars at the construction openings at 599' - 0 floor level. A total of 8 - # 11 dowels (4 at ea. opening) for the two (2) construction openings were omitted. Nonconforming condition was noted during routine field engineer inspection. "Q" No. is 1.203.

R. Reverem 2-21-75

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Drill holes, set the required dowels, and fill holes with non-shrink grout (EMBECO 636). Lap splice and dowel embedment lengths shall be in accordance with the prescribed table on DWG C-211 Rev.4. Expected completion date: 03/31/75.

R. Reverem 2.21.75

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULT

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

DRAWING _____ REV. _____ DCN _____

SPEC. _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____

AUTHORIZED INSPECTOR _____ DATE _____

ORIGINATOR

NONCONFORMANCE REPORT

1. PAGE 1 OF 1
 14. NCR NO. 290
 25. DISPOSITION CONFERENCE
 REWORK REJECT REPAIR USE AS IS
 PROJECT FIELD ENGINEER [Signature] 2-21-75
 PROJECT ENGINEER [Signature] 2-24-75
 PROJECT FIELD QC ENGINEER [Signature]
 AUTHORIZED INSPECTOR [Signature] DATE

2. DRAWING/REV. NO. 7220-C-281 / 2
 7. PROJECT NO. 07220
 12. REPORTED BY R. Reverera DATE 2/21/75
 3. ITEM DESCRIPTION Reinforcing Steel
 8. ITEM LOCATION Aux. Building
 13. VALIDATED BY [Signature] DATE 2/21/75
 4. SERIAL NUMBER N/A
 9. STARTUP SYSTEM NO. N/A
 15. REPLACEMENT PART NO. N/A
 5. PURCHASE ORDER NO. N/A
 10. QC FIELD INSPECTION PLAN NO. N/A C-231-2-372
 16. REPLACEMENT SERIAL NO. N/A
 6. CONTRACTOR/LOCATION N/A
 11. ASME CODE ITEM YES NO
 17. SOURCE Construction

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

19. NONCONFORMING CONDITION: The floor slab at El. 599' - 0 and the F line wall below were poured without providing vertical dowels for the additional # 11 vertical bars at the construction openings at 599' - 0 floor level. A total of 8 - # 11 dowels (4 at ea. opening) for the two (2) construction openings were omitted. Nonconforming condition was noted during routine field engineer inspection. "Q" No. is 1.203.

R. Reverera 2-21-75

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING
 Drill holes, set the required dowels, and fill holes with non-shrink grout (EMBECO 636). Lap splice and dowel embedment lengths shall be in accordance with the prescribed table on DWG C-211 Rev. 4. Expected completion date: 03/31/75.
 R. Reverera 2.21.75

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULT

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

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP
 REMARKS

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

ORIGINATOR

NONCONFORMANCE REPORT

1. PAGE 1 OF 291

25. DISPOSITION CONCURRENCE

REWORK	REJECT	REPAIR	USE AS IS

PROJECT FIELD ENGINEER _____ DATE _____

PROJECT ENGINEER _____ DATE _____

PROJECT FIELD QC ENGINEER _____ DATE _____

AUTHORIZE INSPECTOR _____ DATE _____

12. REPORT DATE 2/25/75

13. VALIDATED BY R. A. MORRY

14. REPLACEMENT PART NO. *Handwritten*

15. REPLACEMENT SERIAL NO. *Handwritten*

17. SOURCE Vendor

18. ROUTE TO MATERIAL SUPERVISOR

7. PROJECT NO. 07220

8. ITEM LOCATION QC Hold Area

9. STARTUP SYSTEM NO. N/A

10. QC FIELD INSPECTION PLAN NO. See Block 19

11. ASME CODE ITEM YES NO

19. ROUTING INSTRUCTIONS ROUTE TO FIELD ENGINEERING

2. DRAWING NO. 5

3. ITEM DESCRIPTION Nuts, Bolts & Washers

4. SERIAL NUMBER See Block 19

5. PURCHASE ORDER NO. 7220-C-38

6. CONTRACTOR/LOCATION Ingalls Iron Works/Verona Pa.

19. NONCONFORMING CONDITION: Specification C-38 Rev. 5 requires vendor to furnish a completed Form G-321-D and Certificates of Compliance for bolts certifying that the bolts conform to the applicable specifications. Contrary to the above, G-321-D and Certificates of Compliance have not been received for the following shipments of ASTM A-325 bolts, nuts, and washers:

Continued on Page 2

20. <input type="checkbox"/> FIELD DISPOSITION <input type="checkbox"/> FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING	21. FIELD DISPOSITION RESULTS
22. ENGINEERING DISPOSITION	23. ENGINEERING DISPOSITION RESULT
24. IS DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED.	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP
DRAWING REV. _____ DCN _____ ADD _____	27. QC ACCEPTANCE
SPEC. _____	QC ENGINEER _____ DATE _____
10098-1	AUTHORIZED INSPECTOR _____ DATE _____

QC

19 Continued.

QTY	SIZE	MATERIAL	PACKING SLIP #	MFR #	INSPECTION PL
100	7/8" X 6"	Bolts/w/muts	V863-R52	AEO-733	C-38-R-23 Rev
100	7/8" X 6"	Bolts/w/muts	V665-R53	AEO-734	C-38-R-24 Rev
45	7/8" X 4 3/4"	Bolts/w/muts	V863-R78	AEO-707	C-38-R-30 Rev
125	7/8" X 4 3/4"	Bolts/w/muts	V664-R55	AEO-707	C-38-R-30 Rev
175	7/8" X 3 1/2"	Bolts/w/muts	V664-R76	AEO-707	C-38-R-30 Rev
125	7/8" X 4 1/2"	Bolts/w/muts	V665-R96	AEO-707	C-38-R-30 Rev
60	7/8" X 3 1/2"	Bolts/w/muts	V863-R15	AEO-707	C-38-R-30 Rev
50	7/8" X 3 3/4"	Bolts/w/muts	V863-R15	AEO-707	C-38-R-30 Rev
55	7/8" X 4 1/2"	Bolts/w/muts	V863-R15	AEO-707	C-38-R-30 Rev
5	7/8" X 5"	Bolts/w/muts	V863-R15	AEO-707	C-38-R-30 Rev
3990	7/8"	Washers	V863-G231	AEO-709	C-38-R-31 Rev
15	7/8" X 2"	Bolts/w/muts	V863-G231	AEO-709	C-38-R-31 Rev
2220	7/8"	Washers	V1016-R12	AEO-709	C-38-R-31 Rev
80	7/8" X 2"	Bolts/w/muts	V1016-R12	AEO-709	C-38-R-31 Rev
30	7/8" X 3 1/2"	Bolts/w/muts	V1016-R12	AEO-709	C-38-R-31 Rev
3000	7/8"	Washers	V664-G118	AEO-710	C-38-R-32 Rev
3000	7/8"	Washers	V665-G119	AEO-710	C-38-R-32 Rev
200	7/8" X 2 3/4"	Bolts/w/muts	V1016-K56	AEO-749	C-38-R-33 Rev
400	7/8" X 2 3/4"	Bolts/w/muts	V665-K57	AEO-749	C-38-R-33 Rev
600	7/8" X 2 3/4"	Bolts/w/muts	V863-K58	AEO-749	C-38-R-33 Rev
175	7/8" X 3 1/2"	Bolts/w/muts	V664-G88	AEO-748	C-38-R-34 Rev
175	7/8" X 3 1/2"	Bolts/w/muts	V665-R91	AEO-747	C-38-R-35 Rev
150	7/8" X 3 3/4"	Bolts/w/muts	V665-R91	AEO-747	C-38-R-35 Rev
700	7/8" X 3"	Bolts/w/muts	V863-R192	AEO-752	C-38-R-36 Rev

Nonconformance noted during inspection. Q Numbers 1.101 & 1.201. Units 1 & 2.
 Hold tags applied.

NONCONFORMANCE REPT.

1. PAGE 1 OF 1

25. DISPOSITION CONFERENCE

2. DRAWING NO. **Rebar Drawing E-86**

DATE: **2/25/75**

12. REPORTED BY: **R. A. MORRY**

7. PROJECT NO. **07220**

REWORK: REJECT: REPAIR: USE AS IS:

13. APPROVED BY: **[Signature]**

8. ITEM LOCATION: **QC Hold Area**

PROJECT FIELD ENGINEER: _____

14. REPLACEMENT PART NO.: **N/A**

9. STARTUP SYSTEM NO.: **N/A**

PROJECT ENGINEER: _____

15. REPLACEMENT SERIAL NO.: **N/A**

10. QC FIELD INSPECTION PLAN NO.: **C-39-R-158 Rev. 0**

PROJECT FIELD QC ENGINEER: _____

16. SOURCE: **Vendor**

11. ASME CODE ITEM: YES NO

AUTHORIZE INSPECTOR: _____

17. ROUTE TO MATERIAL SUPERVISOR:

18. ROUTING INSTRUCTIONS: ROUTE TO FIELD ENGINEERING ROUTE TO PROJECT ENGINEERING

DATE: _____

18. NONCONFORMING CONDITION: **Bechtel approved Vendor Dwg. E-86 Rev. 2 (Reinforcing Steel) indicates Mark #2 should be #11 rebar, type 2 bend, with dimensions as follows: A = 2'0", B = 9'5", Total length 11'5". Contrary to the above, 25 pcs. of #11 rebar with type 2 bends and tagged as E-86/2 Mark #2 have the following dimensions A = 2'0", B = 9'5", 0 = 2'0", Total length 13'5". Nonconformance noted during receipt inspection. Unit #2. "Q" No. 1.103.**

20. FIELD DISPOSITION: FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

DATE: _____

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

DATE: _____

23. ENGINEERING DISPOSITION RESU

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

DATE: _____

27. QC ACCEPTANCE

REMARKS: RETURN TO SUPPLIER REPAIR

DATE: _____

QC ENGINEER: _____

DRAWING REV. _____ DCM _____ ADD _____

DATE: _____

AUTHORIZED INSPECTOR: _____

SPEC. _____

DATE: _____

QC

10098-1

NONCONFORMANCE REPORT

1. PAGE 1 OF 1

2. DRAWING NO. 7220-C-231-Q

3. REV. 6

4. DATE 2/26/75

5. PROJECT NO. 07220

6. REPORTED BY L. R. Albert

7. DATE 2/26/75

8. ITEM LOCATION Reactor Building #2

9. STARTUP SYSTEM NO. N/A

10. QC FIELD INSPECTION PLAN NO. C-231-4-482 Rev. 0

11. ASME CODE ITEM YES NO

12. AUTHORIZED BY *Glenn*

13. REPLACEMENT PART NO. N/A

14. REPLACEMENT SERIAL NO. N/A

15. SOURCE Construction

16. ROUTE TO MATERIAL SUPERVISOR ROUTE TO FIELD ENGINEERING

17. ROUTING INSTRUCTIONS:

18. NONCONFORMING CONDITION:

Specification 7220-C-231-Q Rev. 6 Section 13.2.4 requires that concrete surface temperatures be maintained at no less than 50°F during the curing period. Contrary to the above, recording thermometers in the cover concrete indicated temperatures of 40° and 45° during the sixth day of curing. Nonconformance noted during routine QC surveillance. "Q" No. is 1.105.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULT

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

25. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER REGRIND

26. REMARKS

27. QC ACCEPTANCE

28. QC ENGINEER

29. AUTHORIZED INSPECTOR

30. DATE

QUALITY AUDIT FINDING

AUDIT IDENT. 19	048
AUDIT DATE	1/17/75
AAS ITEM 20	N/A

PROJECT/DEPARTMENT/SELLER Midland 07220	TYPE OF AUDIT Construction	<input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE	AUDITOR Sevo
ISSUE ITEM 15-1-P-0	CHECKLIST ITEM	WHERE FOUND Field Engineering	DISCUSSED WITH D. Palmer T. Valenzano
CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. FIM G-3 Rev. 6 para 4.10.1		SAME AS #	

QUOTATION

The PFQCE shall route a copy of the completed NCR to the organization responsible for control of the activity which apparently caused the nonconformance. Each such organization will evaluate the feed back information provided by the NCR and initiate whatever corrective action may be warranted to prevent recurrence.

FINDING

Contrary to the above, no evidence was available as to evaluation made of feedback information as described above on completed NCR's 248, 256, 223, 164, 208, and 222 which were routed to E. E. Felton.

CORRECTIVE ACTION

1. Provide objective evidence to satisfy compliance with this requirement.

SCHEDULE COMPLETION DATE 2/28/75	RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton
-------------------------------------	--

CORRECTIVE ACTION TAKEN

See attached IOM 0-892

DATE COMPLETED 2/24/75	SUBMITTED BY RESPONSIBLE AUTHORITY <i>[Signature]</i>	DATE 2/24/75
CORRECTIVE ACTION VERIFIED BY OAK		

G. L. Richardson

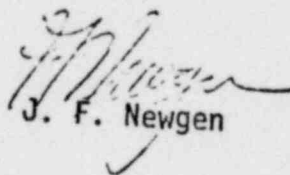
- 2 -

February 18, 1975

This may include counseling sessions with employee, letters to vendors and subcontractors, training sessions for engineers and superintendents, etc... This judgment is not documented and the results of this judgment will be evidence of the evaluation itself.

The implied requirement by your staff for extensive documentation and paperwork and constant re-evaluation of problems exceeds the requirement for "initiating whatever corrective action may be warranted to prevent recurrence". Dependence must be placed on the Project Field Engineer, his Designates and the Discipline Leads to make these judgments based on their administrative, engineering and construction knowledge to resolve this type of problem.

We would be happy to discuss this further with you at your convenience.


J. F. Newgen

JFN/TCV/a1

Attachment

QUALITY ASSURANCE DISCREPANCY REPORT

050
4. ISSUE DATE

1/20/75

1. PROJECT/DEPT./CONTRACTOR Midland 1 & 2		2. POINT OF ORIGIN <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE		5. QAD PREPARED BY: W. Key G. Richardson
6. WORK PLAN DATE N/A	7. CHECKLIST ITEM N/A	8. WHERE FOUND QA/QC files		9. DISCUSSED WITH R. Wyladore

10. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.
NQAM II #5

11. QUOTATION

2.0 "The design process includes the preparation, review, approval and distribution of design documents. Changes to design output documents shall be controlled to assure that an interfacing organizations are notified changes are transmitted to using organizations".

12. DISCREPANCY DESCRIPTION

Rev. 6 of the Q-list has been issued. At the time of issuance the document controller deleted several holders of the Q-list from the distribution list. However, these holders of Rev. 5 were not notified nor were the superceded copies of the Q-list destroyed or voided. Examples: G. Richardson, L. Albert, D. Thompson.

13. RECOMMENDED CORRECTIVE ACTION

Notify holder of the Q-list that are no longer on distribution and destroy or void the superceded Q-lists.

14. SCHEDULED COMPLETION DATE 2/10/75	15. RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton
--	--

16. CORRECTIVE ACTION TAKEN

Document controller notified that individuals on distribution will not be removed without written notice to them. Distribution of the Q list will be to all Engineers, Superintendents, QC & QA until further notice. Transmittal controls the document by noting to holder that this rev. supercedes previous.

17. DATE COMPLETED 2-4-75	18. SUBMITTED BY RESPONSIBLE AUTHORITY <i>JC Valdez</i>
------------------------------	--

19. CORRECTIVE ACTION VERIFIED BY QAE <i>Ray L. Richardson</i>	20. DATE 2/25/75
---	---------------------

Reid JHR 2-28/75

QUALITY ASSURANCE DISCREPANCY REPORT

3. QAD IDENT. NO.

051

4. ISSUE DATE

2/25/75

5. QAD PREPARED

G. Richardson
R. Sevo

6. WORK PLAN DATE

N/A

7. CHECKLIST ITEM

N/A

8. WHERE FOUND

Maintenance Records

9. DISCUSSED WITH

J. Connolly

D. Martin

10. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.

See below.

11. QUOTATION

F-2-192 and F-1-63 Rev. 5 Para 4.0, requires a minimum of 4 oz. psig

nitrogen atmosphere. (See attachment).

FPG-3 Rev. 2 Para 5.4, "Any discrepancies will be written on the form prior to turning over the QCE".

FPG-3 Rev. 2 Para 9.0, "If storage or storage maintenance requirements are curtailed, suspended or not performed for any reason, the QCE and MSE shall decide appropriate action to be taken." Continued.

12. DISCREPANCY DESCRIPTION

1. The minimum requirements for the nitrogen atmospheres have not been maintained for steam generator No. 2E-51B. Examples of this are attached.

2. The MSS has recorded the pressures on an attachment to the F-2 form, but has not indicated them as discrepant nor did the QCE identify this condition. The readings recorded do not indicate units of measurements.

Continued.

13. RECOMMENDED CORRECTIVE ACTION

See attached.

14. SCHEDULED COMPLETION

DATE 3/25/75

15. RESPONSIBILITY FOR CORRECTIVE ACTION

1, 2 J. Newgen; 1, 3 J. Connolly

16. CORRECTIVE ACTION TAKEN

17. DATE COMPLETED

18. SUBMITTED BY RESPONSIBLE AUTHORITY

19. CORRECTIVE ACTION VERIFIED BY QAE

20. DATE

Block # 11 Continued.

FPG-3 Rev. 2 Para 6.0, "The PFQCE is responsible for performing surveillance of this program to verify compliance to applicable criteria and provisions of referenced documents."

Block # 12 Continued.

3. There are no records available to document that the MSS and QCE determined what action should be taken to correct the discrepancies.

Block # 13 Continued.

- 1 & 3 Maintain the required nitrogen atmospheres and evaluate the acceptability of the storage conditions to date.
2. Instruct the MSS on proper implementation of Form F-2 and identify units of measurements on past and future reports.

QUALITY ASSURANCE DISCREPANCY REPORT

3. QAD IDENT. NO.

052

4. ISSUE DATE

02/26/75

1. PROJECT/DEPT./CONTRACTOR

Midland 1 & 2

2. POINT OF ORIGIN

 FIELD OFFICE

5. QAD PREPARED BY:

W. J. Key

6. WORK PLAN DATE

02/28/57

7. CHECKLIST ITEM

N/A

8. WHERE FOUND

Measuring/test equip. lab;
CC files

9. DISCUSSED WITH

R. Bowren

G. Butler

10. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.

SF/PSP #3, Rev. 0

11. QUOTATION

2.1.5 "The PFQCE is responsible for reviewing the Measuring and Testing Equipment List".

3.2 "The QCE shall perform the activities set forth in para. 2.2 (2.2.1 - 2.2.8) and record the results on a Field Inspection Report.

12. DISCREPANCY DESCRIPTION

- Weekly and monthly reviews and inspection results for para. 2.2 are not being recorded on the Field Inspection Report.
- Identification of equipment on the equipment list does not coincide with the identification on the card file.

Equip. List #	Card File #
M-81	C-81
M-333	C-333
M-334	C-334

13. RECOMMENDED CORRECTIVE ACTION

- Assure that future Field Inspection Reports reflect the results of reviews and inspections.
- Review the equipment list and card file, and correct identification of equipment.

14. SCHEDULED COMPLETION DATE 03/17/75

15. RESPONSIBILITY FOR CORRECTIVE ACTION
J. P. Connolly

16. CORRECTIVE ACTION TAKEN

17. DATE COMPLETED

18. SUBMITTED BY RESPONSIBLE AUTHORITY

19. CORRECTIVE ACTION VERIFIED BY QAE

20. DATE

QUALITY ASSURANCE DISCREPANCY REPORT

3. QAD IDENT. NO.

053

4. ISSUE DATE

02/27/75

1. PROJECT/DEPT./CONTRACTOR

07220 - Midland

2. POINT OF ORIGIN

FIELD
 OFFICE

5. QAD PREPARED

R. Sevo

6. WORK PLAN DATE

02/28/75

7. CHECKLIST ITEM

25.3

8. WHERE FOUND

Champion Files

9. DISCUSSED WITH

J. Connolly
P. Schmanski

10. CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC.

Champion Quality Assurance Manual, Rev. 3

11. QUOTATION

Section VII Document Control

"The issuance and receipt of instructions are controlled by the assignment

of a document control number. All such documents are recorded on a log sheet

Maintenance of a log sheet is the responsibility of the Plant Supervisor."

Section XVIII Quality Assurance Records

"All data and correspondence relative to Quality Assurance shall be filed under

the proper heading and logged. These logs and files shall be available for the

12. DISCREPANCY DESCRIPTION

Continued.

Contrary to the above; (a) a log sheet is not being maintained by the Plant

Supervisor. (b) Correspondence relative to Quality Assurance is not logged.

(c) Copy of audit logs as of 12/10/73 are not available at the jobsite for review.

13. RECOMMENDED CORRECTIVE ACTION

a. Prepare and maintain log sheet as required.

b. Log data and correspondence relative to Quality Assurance.

c. Make audit logs as of 12/10/73 available at the jobsite.

14. SCHEDULED COMPLETION

DATE 03/31/75

15. RESPONSIBILITY FOR CORRECTIVE ACTION

J. P. Connolly

16. CORRECTIVE ACTION TAKEN

17. DATE COMPLETED

18. SUBMITTED BY RESPONSIBLE AUTHORITY

19. CORRECTIVE ACTION VERIFIED BY OAE

20. DATE


Quality Assurance Discrepancy Report - 053

Block No. 11 Continued.

audit by contractor"

Section XIX Audits

"..... A copy of the audit logs will be kept at the jobsite for review".

Route To	This Copy For
G. S. Keeley C. O. Hills H. W. Slager (last)	S. H. Howell W. E. Kessler (2) W. F. Holub File
 Nonconformance No QF-24	

File 16.3.6
 Issue Date August 21, 1974
 Project Midland 1 & 2
 File Title NCR's on Bechtel
 Quality Control

This Nonconformance Report is Issued to:
 Mr. J. P. Connolly
 Bechtel Power Corporation
 P.O. Box 2167
 Midland, Mich. 48640

who is responsible for correction action.

Prepared By DR Keating Date 8-21
 Reviewed By JF Colby Date 8/21
 Written Reply Required By Date 9-4-74
 Action Required By Date 9-18-74

Nonconformance Description and Supporting Details:

Magnetic particle examination procedure MT-P-1,2, Rev. 0, states in Section 6.2 that for containment liners, fuel pools and similar construction, a rollout drawing shall be prepared which shows each weld seam. The following information shall be recorded on the drawing as a minimum:

- a. Welds examined
- b. Weld joint identification
- c. Inspection procedure specification identification and revision number, and method (prod or yoke) of examination
- d. Date of examination
- e. Examiner's name or initials (continued on sheet 2)

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

Recommended Corrective Action (If Appropriate):

Comply with MT-P-1,2, Rev. 0, and provide required information on Unit 2 floor liner plate rollout

¹Corrective Action To Be Taken: MT-P-1, 2, Rev. 0 was revised and issued for use as Rev. 1. Specification G-25, "General Project Requirements for Nondestructive Examination Procedures," Rev. 3, contains the revised procedure and is issued for use at Midland. The revision to the NDE procedure allows referencing of NDE reports containing required information as an alternative to requiring the information on the drawing itself.

¹Underlying Cause of Nonconformance: Numerous inspections are required because of the installation sequence being followed. Space for the documentation on the rollout is not sufficient and since the information is redundant to the NDE report, it was decided that double documentation was not necessary.

(Corrective Action Implemented and Nonconformance Closed) Confirmed By DR Keating
 Date 2-5-75

¹To Be Provided by Addressee.

- f. Examination results
- g. Weld disposition

Contrary to the above, the rollout drawing for the floor liner plate of Unit 2 did not contain items c., Inspection procedure specification identification and revision number, and method (prod or yoke) of examination, e., Examiner's name or initials, f., Examination results, and g., Weld disposition.

S. Keeley
W. Slager
Q. Hills

S. H. Howell
W. E. Kessler(2)
W. F. Holub
File



Nonconformance No QF29

File 16.3.6
Issue Date October 14, 1974
Project Midland 1 & 2
File Title NCR's on Bechtel
Quality Control

This Nonconformance Report is Issued to:
Mr. J. P. Connolly
Bechtel Project Field Quality Control Engineer

Prepared By Donald E. Horn Date 10-14-74
Reviewed By J. P. Connolly Date 10/17/74
Written Reply Required By Date 10-24-74
Action Required By Date 11-14-74

who is responsible for correction action.

Nonconformance Description and Supporting Details: Specification C-211 Rev. 0 and SCN No. C-211-4001, 5.6.2 states "Material delivered to the jobsite for use as structural backfill shall be visually inspected, and tested in accordance with ASTM C-117 and C-136 by the contractors representative once per day when material is being delivered." Structural backfill material was delivered on thirty (30) days in August and September, but the QC File only has test reports for one (1) of the thirty (30) days. U.S. Testing File only has test reports for eleven (11) of the thirty (30) days.

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

Recommended Corrective Action (If Appropriate): (1) Evaluate the structural backfill material in place and in the stockpile with additional tests. (2) Locate the missing test reports. (3) Correct the problem of U.S. Testing not being notified of incoming structural backfill material.

¹ Corrective Action To Be Taken: (1) Evaluate the structural backfill material in the stockpile with additional tests. (2) Locate the missing test reports. (3) Correct the problem of U.S. Testing not being notified of incoming structural backfill material.

¹ Underlying Cause of Nonconformance: The underlying cause of this nonconformance is Bechtel Quality Control was not being fully informed of material deliveries, therefore U.S. Testing was not being informed by Bechtel Quality Control.

(Corrective Action Implemented and Nonconformance Closed) Confirmed By Donald E. Horn
(1) Bechtel NCR 198 was initiated. 26 additional samples were taken from the stockpile. Bechtel Project Engineering's Disposition is to "use as is" based on the results of the additional samples. (2) The ten missing reports were found and placed in the QC File (3) A memorandum from E. E. Felton directing that Quality Control be notified of all incoming shipments of structural backfill material was issued on October 29, 1974. Date February 12, 1975

¹ To Be Provided by Addressee.

3/15/74

Route To

This Copy For

GSKeeley
CQHills
HWSlagerSHHowell
WEKessler (2)
WFHolub
GLRichardson
File

~~CONFIDENTIAL~~

Nonconformance No QF-36

File 16.3

Issue Date December 5, 1974

Project Midland

File Title NCR's on Bechtel

This Nonconformance Report is Issued to:

J. P. Connolly, Bechtel PFQCE

E. E. Felton, Bechtel Project Superintendent

who is responsible for correction action.

Prepared By RE Whitaker Date 12/5/74Reviewed By [Signature] Date 12/19/74

Written Reply Required By Date _____

Action Required By Date 1/2/75

Nonconformance Description and Supporting Details:

On December 4, 1974 the rebar spacing for unit #2 containment wall pour CC(652.75)a' was checked by CPCo.-QA. That check revealed the following.

(See Attachment A)

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

Recommended Corrective Action (If Appropriate):

1. Correct the rebar spacing or provide adequate rationale to use as is.
2. Reinstruct personnel in proper spacing of bars.
3. Provide instruction to inspection personnel as to what course of action to follow if apparent discrepancies are found.
4. Provide assurance that the same situation does not exist in past Q-List pours, or, if it does, why the structural integrating has not been compromised in these pours.

¹ Corrective Action to be Taken:

1. Calculations by Bechtel Engineering and checked by CPCo indicated the existing bar spacing "does not represent a condition less safe than would be the case were the spacing as called for on the drawings." Also, the rebar at the top of pour cc(652.75)a' was moved to provide the correct spacing before the pour was made. (Contd on Attachment B)

¹ Underlying Cause of Nonconformance:

The underlying cause of the nonconformance was due to the transition from #18 to #11 rebar and field interpretation of Para. 8.7.1c of Specification 7220-C-231.

(Corrective Action Implemented and Nonconformance Closed) Confirmed By RE Whitaker

Implementation of the above items was confirmed on Date 2/10/75
pour C(601.92)a' on February 6, 1975.

¹ To Be Provided by Addressee.

*Undetermined at this time.

3/15/74

Attachment A to QF-36
December 5, 1974

Rebar spacing for #11 bars was called out on the drawings as 8". Variation in spacing per specification C-231 can be up to 1/6 of the spacing which would allow a spacing of 6 2/3 to 9 1/3 inches. Contrary to this, spacings of 4 1/2 to 13 inches were found between 35° & 70°, 6 to 11 inches between 0° & 35° and 11 to 15 inches near the personnel lock. Smaller variations were found at other locations. Variations were also found in the spacing of other size bars.

The preplacement inspection plan for this pour was found to be signed off with no note of irregular rebar spacing.

Route To	This Copy For
GSKeeley HWSlager CQHills	SHHowell WEKessler (2) TCCooke WFHolub GLRichardson File



CONSUMERS POWER
Nonconformance
Report No OF-41

File 16.3.6
Issue Date 2-24-75
Project Midland 1 & 2
File Title NCR's on Bechtel Qual Control

This Nonconformance Report is Issued To:
Mr. J. P. Connolly
Bechtel Project Field Quality Control Engineer

who is responsible for corrective action.

Prepared By Donald E. Horn Date 2-24-75
Approved By [Signature] Date 2/24/75
Written Reply Requested By Date 3-5-75
Corrective Action Requested By Date 3-24-75

Nonconformance Description and Supporting Details: The Field Inspection Manual, G-6 Appendix B, page 3 of 6, states the instructions for preparing and processing the field inspection plan for Block No. 12 as "Upon satisfactory completion of the designated inspection activity/task, listed between the horizontal lines, the Quality Control Engineer with assigned responsibility for performance of the inspections shall enter his signature and the date the inspections were completed." Block No. 12 is not signed off for Activity/Task No. 4.00 on Inspection Plan C-231-3-398 for Pour No. A(597.25)b', Activity/Task No. 1.20 on Inspection Plan C-208-1-71 for Pour No. A(597.25)a', Activity/Task No. 3.00 on Inspection Plan C-231-3-382 for Pour No. CC(606.0)a', and Activity/Task No. 1.20 on Inspection Plan C-208-1-64 for Pour No. A(599)c'.

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

Recommended Corrective Action: (1) Review all pour packages for similar problems (2) Correct all problems (3) Take corrective action to preclude these occurrences.

1 Corrective Action Taken:

1 Verification of Corrective Action Required Yes No

1 Method of Verification:

1 Nonconformance Closure Confirmed By _____
Date _____

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

Attachment B
NCR QF-36
December 5, 1974

2. FIC #7, Rebar Installation Instructions, was issued to all Civil Engineers and Superintendents, and was the subject of a training session held for all field civil engineers, superintendents and QC engineers. QC engineers were also instructed in the commitments made by JPConnolly in his letter FQCL-040.
3. JPConnolly in his letters FQCL-034 and FQCL-040 said a review of QC records and discussions with QC personnel revealed that proper rebar spacing had been maintained for all previous "Q" listed concrete placements.