

Circle File



Consumers
Power
Company

Stephen H. Howell
Vice President

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 786-0560

November 26, 1973

Dr. Donald F. Knuth
Regulatory Operations
US Atomic Energy Commission
Washington, DC 20545

Dear Dr. Knuth:

In accordance with Condition 4 of the Memorandum and Order ALAB-106 dated March 26, 1973 and Amendment No 1 to the Midland Plant construction permits, there are submitted herewith two (2) copies of the nonconformance report for October, 1973. This report consists of copies of Nonconformance Reports (NCR) and Quality Audit Findings (QAF) that have been closed out and those that have been originated since the September report was submitted. Copies of NCR and QAF status sheets are also included.

Yours very truly,

[Handwritten signature]

SHH/sjb

CC: WEKessler
GSkeelely

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Leasing*

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2 1003



NONCONFORMANCE-REPORT LOG & STATUS BOOK

PROJECT NO. 7220

REPORT AS OF _____
 PAGE COMPL _____
 Q.C. ENG. SIGN _____

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

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BECHTEL

NONCONFORMANCE REPORT

PROJECT NO. 7220

1. PAGE 1 OF 1

2. No. C-2

SKETCH ATTACHED Yes

3. MO DAY YR
DATE 9 7 73

4. ITEM LOCATION Containment #1 AREA/BLDG. _____ 5. DWG/PART No. _____ REV. _____ 6. ITEM NAME #7 Rebars Q No. 1.11

DOCUMENT NUMBER & TITLE

7. INSPECTION CRITERIA
DWG SPEC OTHER (EXPLAIN) Specification for Furnishing, Detailing, Fabrication & Delivering of Reinforcing Steel

8. SOURCE: ENGRG. CONSTR. OTHER (EXPLAIN) Inland-Rverson Chicago, Illinois S. P.O. No. 7220-C-39

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

1 #7 Rebars in Containment #1 are undersized.
Refer to Final Report-Inspection of Embedded Reinforcing Bar of Hugh L. Hondorp Dated August 29, 1973.

12. NCR PREPARED BY: W. M. ... Date 9/7/73 CONCURRENTLY RESPONSIBLE LEAD ENGR. Richard ... Date 9/7/73

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

Refer to Proj. Engr. for disposition

RECEIVED

OCT 3 1973

BECHTEL POWER CORP.
JOB 7220
PER. PN

14. FIELD DISPOSITION BY: _____ Date _____ APPROVAL OF FIELD DISPOSITION: Tom ... Date 9/7/73

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

THE UNDERSIZED #7'S, AS CALLED OUT IN HUGH L. HONDORP'S INSPECTION REPORT OF EMBEDDED REINFORCING BAR DATED AUGUST 29, 1973, ARE SATISFACTORY. THE INCREASE IN STRESS DUE TO THE UNDERSIZING IS NOT SUFFICIENT TO OVERSTRESS THE #7'S.
NO FURTHER ACTION REQUIRED
SEE ATTACHED IOM

16. APPROVAL OF ENGRG. DISPOSITION: PE W. M. ... Date 9/25/73 PFE Tom ... Date 9/7/73
CONCURRENCE AUTH. INSP. _____
17. REINSPECTION: ACCEPT REJECT CONCURRENCE: Auth. Insp. _____

BECHTEL

NONCONFORMANCE REPORT

PAGE 1 OF 2

No. C-3

SKETCH ATTACHED

MO DAY YR

PROJECT NO. 7220

7220-PSK-C-1

DATE 9 12 73

| | | | | |
|-------------------------------------|------------------------------|--------------------------------------|------------------|-------------------------------------|
| ITEM LOCATION <u>EL. 582'-6"</u> | AREA BLDG. <u>Reactor</u> | 5. DWG/PART No. <u>7220-C-307</u> | REV. <u>4</u> | 6. ITEM NAME <u>Rebar Dowels</u> |
|-------------------------------------|------------------------------|--------------------------------------|------------------|-------------------------------------|

7. INSPECTION CRITERIA DOCUMENT NUMBER & TITLE
 DWG SPEC OTHER (EXPLAIN) 7220-C-307 Rev. 4 Tendon Gallery Details

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

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

1 Twenty-eight #9 rebar dowels extending from the tendon gallery inner wall to the Reactor Building #1 base slab were cut off at the concrete line (582'-6") in order to set certain columns for the support framing system. See attached 7220-PSK-C-14 for locations. See sheets 1 & 2 of Joseph T. Ryerson & Son, Inc. drawing SW 528626 for column identification.

12. NCR PREPARED BY: Responsible Engr. W. Hunt Date 9/12/73 CONCURRENCE: Responsible Lead Engr. R. M. ... Date 9/13/73

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

14. FIELD DISPOSITION BY: A. Hunt Date 9/12/73 APPROVAL OF FIELD DISPOSITION: PFE Jim C. ... Date 9/12/73 CONCURRENCE AUTH. INSP.

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

- Request to leave the #9 dowels as shown on FSK-C-14 is acceptable.
- We have investigated the stress requirement of #9 dowels and found it satisfactory. Letter to E. Felton sent on Sept 12, 1973

RECEIVED

16. APPROVAL OF ENGRG. W. Hunt Date 10/5/73 PFE Jim C. ... Date 10/5/73 CONCURRENCE AUTH. INSP.

17. REINSPECTION: ACCEPT REJECT CONCURRENCE: ... Date 10/5/73



NONCONFORMANCE REPORT

PROJECT NO. 7220

1. PAGE 1 OF 1
 2. No. C-6
 3. DATE 10 / 4 / 73

4. ITEM LOCATION: Containment Area/BLDG. Liner
 5. DWG/PART No. S-1-14-U-1
 6. ITEM NAME: Liner Plate Assembly
 Q No. 1.21

7. INSPECTION CRITERIA: DWG SPEC OTHER (EXPLAIN) Report of tests and analysis-Bethlehem Steel Corporation and Vendor Documents.
 DOCUMENT NUMBER & TITLE

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

10. No. 1
 11. NONCONFORMANCE (DISCREPANCY) DESCRIPTION: Heat and slab numbers stamped on plate do not agree.
 ASME YES NO

| | |
|---|---|
| 1 | <u>Liner Plate S-1-14-U-1</u> |
| | <u>Heat and slab numbers stamped on plate do not agree.</u> |
| | <u>Mill Stamp: Heat - 518A2299</u> |
| | <u>Slab - A 42630</u> |
| | <u>Vendor Stamp: Heat - 518Z2299</u> |
| | <u>Slab - A 42631</u> |

12. NCR PREPARED BY: Responsible Engr. C.F. Clark Date 10-4-73
 CONCURRENCE: Responsible Lead Engr. Richard Dote Date 10/4/73

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

We have checked the Southern Boiler documentation package which includes photostatic copies of the Bethlehem Steel Corp. test reports. Heat and slab numbers stamped by the mill can not be traced to the documentation forms, but numbers stamped by the vendor can and are traceable to mill documentation. The field recommendation is that we obliterate the mill stamp and use the vendor stamped number for identification.

14. FIELD DISPOSITION BY: C.F. Clark Date 10-4-73
 APPROVAL OF FIELD DISPOSITION: PFE Jim C. Williams Date 10/4/73
 CONCURRENCE AUTH. INSP. [Signature]

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

16. APPROVAL OF ENGRG. PE _____ Date _____
 PFE _____ Date _____
 DISPOSITION CONCURRENCE _____ Date _____

17. REINSPECTION: ACCEPT Responsible Engr. _____ Date _____
 REJECT Responsible Lead Engr. _____ Date _____



NONCONFORMANCE REPORT

PROJECT NO. 72201. PAGE 1 OF 12. Nr. C-7SKETCH ATTACHED Yes 3. MO DAY YR
DATE 10 8 73

| | | | | | |
|---------------------------------------|------------|-----------------------------------|------|--------------------------|-------------------|
| ITEM LOCATION Containment Unit # 2 | AREA/BLDG. | 5. DWG/PART No. Not applicable | REV. | 6. ITEM NAME Concrete | Q No. <u>1.12</u> |
|---------------------------------------|------------|-----------------------------------|------|--------------------------|-------------------|

| | |
|--|-------------------------|
| 7. INSPECTION CRITERIA DWG <input type="checkbox"/> SPEC <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> (EXPLAIN) 7220-C-230 | DOCUMENT NUMBER & TITLE |
|--|-------------------------|

| | | |
|--|---------|-------------|
| 8. SOURCE: ENGRG. <input type="checkbox"/> CONSTR. <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> (EXPLAIN) | ADDRESS | 9. P.O. No. |
|--|---------|-------------|

| | | |
|---------|---|---|
| 10. No. | 11. NONCONFORMANCE (DISCREPANCY) DESCRIPTION: (LIST SERIAL NUMBERS WHERE APPLICABLE) | ASME YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
|---------|---|---|

- | | | |
|---|--|--|
| 1 | Pour No. CC (575)a Mix A-2 Date 9-28-73 Lean concrete backfill south of Containment Unit # 2 Access Gallery Wall Ticket #11787 (8 c.y.) placed with 6.1% air content and 5 1/2" slump | |
| 2 | Pour No. CC (581.25)a Mix A-2 Date 10-2-73 Lean concrete backfill south of Containment Unit #2 Access Gallery Wall Ticket #11794 (8 c.y.) placed with 2.1% air content #11795 (8 c.y.) placed with 2.6% air content #11796 (8 c.y.) placed with 2.5% air content | |

| | |
|--|--|
| 12. NCR PREPARED BY: Responsible Engr. <u>Richard Grote</u> Date <u>10-8-73</u> | CONCURRENCE Responsible Lead Engr. <u>Richard Grote</u> Date <u>10-8-73</u> |
|--|--|

| |
|--|
| 13. FIELD DISPOSITION: REWORK <input type="checkbox"/> REJECT <input type="checkbox"/> ROUTE TO PROJECT ENGRG <input checked="" type="checkbox"/> NOTIFY AUTHORIZED INSP. <input type="checkbox"/> ROUTE TO MAT'L SUPV. <input type="checkbox"/> |
|--|

&2 Adjustments made during the placement to correct deficiencies. Field engineers and quality control engineers have been instructed that "lean concrete backfill" is governed by the same specifications as structural concrete. No specification relaxation is allowed.
Field recommends acceptance of "in place" concrete backfill

Field Recommendation: Use as is

| | |
|---|--|
| 14. FIELD DISPOSITION BY: <u>Richard Grote</u> Date <u>10-8-73</u> | APPROVAL OF FIELD DISPOSITION: PFE <u>TV</u> CONCURRENCE AUTH. INSP. <u>10/12/73</u> Date |
|---|--|

| | | |
|---|--|---------------|
| 15. ENGRG DISPOSITION: REPAIR <input type="checkbox"/> USE AS IS <input type="checkbox"/> REJECT <input type="checkbox"/> SEE BELOW <input type="checkbox"/> | DCN REQD: YES <input type="checkbox"/> NO <input type="checkbox"/> | DCN No. _____ |
|---|--|---------------|

| | |
|---|--|
| 16. APPROVAL OF ENGRG. DISPOSITION PE _____ Date _____ PFE _____ Date _____ CONCURRENCE AUTH. INSP. _____ Date _____ | 17. REINSPECTION ACCEPT <input type="checkbox"/> Responsible Engr. _____ Date _____ REJECT <input type="checkbox"/> Responsible Lead Engr. _____ Date _____ CONCURRENCE: Auth. Insp. _____ Date _____ |
|---|--|



NONCONFORMANCE REPORT

1. PAGE 1 OF 2

2. No. C - 8

PROJECT NO. 7220

SKETCH ATTACHED Yes

3. DATE 10 8 73 MO DAY YR

4. ITEM LOCATION Auxiliary Building AREA/BLDG. 7220-C-201Q 5. DWG/PART No. 4 REV. 4 6. ITEM NAME Concrete Q No. 1.12

7. INSPECTION CRITERIA DWG SPEC OTHER (EXPLAIN) 7220-C-230 DOCUMENT NUMBER & TITLE

8. SOURCE: ENGRG. CONSTR. OTHER (EXPLAIN) ADDRESS 9. P.O. No.

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

1 Pour No. A(574)a Mix D-2 Date 9-24-73
Auxiliary Bldg. Structural Concrete Total placed 220 c.y.
Ticket #11711 (8 c.y.) placed with low air content
Ticket #11712 (8 c.y.) placed with no testing
See attached copies of tickets 11701 thru 11718 showing air entraining dosages used and corresponding test results. Ticket 11711 was spot checked for air content. Previous results did not indicate truck should be held for results.

12. NCR PREPARED BY: Responsible Engr. Richard Grote Date 10-8-73 CONCURRENCE: Responsible Lead Engr. Richard Grote Date 10-8-73

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

1 Air meters were checked for accuracy
Dosage of A.E.A. was continually increased until a 4.5% was obtained on ticket 11718
Fluctuating air content attributed to flyash
2 Adjustment made during placement to correct deficiency. Field engineers and quality control engineers have been instructed that "lean concrete backfill" is governed by the same specifications as structural concrete. No specification relaxation is allowed.
Field Recommendation: Use as is.

14. FIELD DISPOSITION BY: Richard Grote Date 10-8-73 APPROVAL OF FIELD DISPOSITION: PFE W.C. [Signature] Date 10/12/73 CONCURRENCE AUTH. INSP.

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

16. APPROVAL OF ENGRG. PE _____ Date _____ PFE _____ Date _____ DISPOSITION CONCURRENCE AUTH. INSP. _____ Date _____

17. REINSPECTION ACCEPT Responsible Engr. _____ Date _____ REJECT Responsible Lead Engr. _____ Date _____ CONCURRENCE: Auth. Insp. _____ Date _____



NONCONFORMANCE REPORT

CONTINUATION SHEET

PROJECT NO. 7220

PAGE 2 OF 2

No. C-8

SKETCH ATTACHED Yes

| | | | |
|------|----|-----|----|
| 3: | MO | DAY | YR |
| DATE | 10 | 8 | 73 |

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

10. 1. (Cont.) Ticket 11711 and 11712 was placed before corrective action was taken.

2. Pour A (580.0)a Mix A-2 Date 10-3-73
Lean concrete backfill south of Auxiliary Bldg.

Ticket #11817 (8 c.y.) placed with 7.8% air content

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NON INFORMANCE REPORT

SKETCH ATTACHED Yes

DATE 10 29 73

PROJECT NO. 7220

| | | | | | |
|--|------------|-------------------------------------|-----------|---|-----------|
| 4. ITEM LOCATION Concrete Patch Plant | AREA/BLDG. | 5. DWG/PART No. Spec. 7220-C-208 | REV. 2 | 6. ITEM NAME Concrete Aggregate (1 1/2") | Q No. 1.8 |
|--|------------|-------------------------------------|-----------|---|-----------|

7. INSPECTION CRITERIA
 DWG SPEC OTHER (EXPLAIN) Spec. 7220-C-208 Rev. 2, & Spec. 7220-C-230 Rev. 2

| | | |
|--|-------------------------------|---------------------------|
| 8. SOURCE: ENGRG. <input type="checkbox"/> CONSTR. <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> (EXPLAIN) U. S. Testing Laboratory | ADDRESS On Site Laboratory | 9. P.O. No. 7220-C-208 |
|--|-------------------------------|---------------------------|

| 10. No. | 11. NONCONFORMANCE (DISCREPANCY) DESCRIPTION (LIST SERIAL NUMBERS WHERE APPLICABLE) | ASME | YES | NO |
|---------|---|------|--------------------------|-------------------------------------|
| 1 | The 1 1/2" concrete aggregate tested during placement of lean concrete backfill on October 17, 18, 19, and 22, 1973 failed gradation. No corrective action was taken due to the subcontractor's failure to retest the aggregate or to notify the Bechtel representative of the problem. | | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| | | | |
|---|------------------|---|------------------|
| 12. NCR PREPARED BY: Responsible Engr. Gary W. Knell | Date 10-29-73 | CONCURRENCE: Responsible Lead Engr. Richard A. ... | Date 10-29-73 |
|---|------------------|---|------------------|

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

| | |
|---|---|
| 1 | On October 23, 1973 Bechtel became aware of the gradation failures. At this time immediate steps were taken to correct the discrepancies. United States Testing Laboratory was notified of their responsibility of two retests for each failure and to notify the Bechtel representative of any failures. |
|---|---|

| | | | |
|--|------------------|--|------------------|
| 14. FIELD DISPOSITION BY: Gary W. Knell | Date 10-29-73 | APPROVAL OF FIELD DISPOSITION: PFE [Signature] CONCURRENCE AUTH. INSP. [Signature] | Date 10-29-73 |
|--|------------------|--|------------------|

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

| | | | | |
|------------------------------------|--|------------------|--|----------------------|
| 16. APPROVAL OF ENGRG. DISPOSITION | PE _____ Date _____ | 17. REINSPECTION | ACCEPT <input checked="" type="checkbox"/> | [Signature] 10-29-73 |
| | PFE _____ Date _____ | | REJECT <input type="checkbox"/> | [Signature] 10-29-73 |
| | CONCURRENCE AUTH. INSP. _____ Date _____ | | CONCURRENCE | [Signature] _____ |

ENCLOSURE

ALPB-106

NON CONFORMANCE REPORT

PROJECT NO. 7220

SKETCH ATTACHED Yes No

MO DAY YR
DATE 10 25 73

4. ITEM LOCATION AREA/BLDG. 5. DWG/PART No. REV. 6. ITEM NAME Q No. 1.21
Liner Plate Fit-ups & Welding Jig FSK-C-34 (S2-4 To S1-1)(S1-5)and(S2-14 to S1-9-U)

7. INSPECTION CRITERIA DWG SPEC OTHER (EXPLAIN) X-Ray Engr. IPRT-100 Inspection Procedure, Para. 4.1 R.T.X-G-1 Rev. 0 Para. 3.9

8. SOURCE: ENGRG. CONSTR. OTHER (EXPLAIN) X-Ray Engr. 1118 Chaco Dr. -Foster City, Calif. 94404 ADDRESS P.O. No. FSC-56

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

1 Radiographic Reports dated 10/16/73; 10/18/73 and 10/19/73 show a Mr. J. Allstrom as Radiographer on line 2. Radiographic Report dated 10/24/73 shows a Mr. J. Case as Radiographer on line 2. Our records show no ASNT-TC-1A Qualifications for these two men.

12. NCR PREPARED BY: Responsible Eng. Date 10/25/73 CONCURRENCE: Responsible Lead Engr. Date 10/25/73

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

1 Re-submit the subject Radiographic Reports with line 2 Blank, or with the Qualified Radiographers name in this space. If Qualified Radiographer is used, his papers must be in QC Record File's at site.
Per Section 4, Para. 4.1 Page 2 of 57 of X-Ray Engineering Q.A. Manual

14. FIELD DISPOSITION BY: Date APPROVAL OF FIELD DISPOSITION: PFE CONCURRENCE AUTH. INSP. Date

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

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

STATUS OF QUALITY ASSURANCE AUDIT FINDINGS (QAF)

| QAF No. | STATUS | COMMENT |
|---|---|--|
| From Construction audit July 17-19, 1973 (Audit No. C-1) | | |
| 001 | Corrective action completed and verified. | |
| 002 | Corrective action completed and verified. | |
| From Engineering audit September 5-9, 1973 (Audit No. E-2) | | |
| QA #1 & QA #18 | Open | Corrective action due date extended to 12/31/73 |
| From Construction audit October 15-18, 1973 (Audit No. C-2) | | |
| 1 (C-2) | Open | Corrective action due 11/16/73 |
| 2 (C-2) - 3 (C-2) | Corrective action completed and verified. | |
| 4 (C-2) | Open | Corrective action due 11/5/73 |
| 5 (C-2) | Open | Corrective action due 11/16/73 |
| 6 (C-2) | Corrective action completed and verified. | |
| 7 (C-2) | Open | Corrective action due date extended to 12/10/73 |
| 8 (C-2) - 9 (C-2) | Corrective action completed and verified. | |
| 10 (C-2) - 12 (C-2) | Open | Corrective action due 11/16/73 |
| 13 (C-2) | Corrective action completed and verified. | |
| 14 (C-2) - 15 (C-2) | Open | Corrective action due 11/16/73 |
| 16 (C-2) | Corrective action completed and verified. | |
| 17 (C-2) | Open | Corrective action due 11/26/73 |
| 18 (C-2) - 20 (C-2) | Open | Corrective action due 11/16/73 |
| 21 (C-2) | Open | Corrective action due 11/5/73 |
| 22 (C-2) - 26 (C-2) | Open | Corrective action due 11/16/73 |



QUALITY AUDIT FINDING

| | |
|--------------|---------|
| AUDIT IDENT. | 001 |
| AUDIT DATE | 7-17-73 |
| ISSUE ITEM | 1 |

| | | | | |
|--|---------------------|----------------------------------|--|----------------------|
| OBJECT/DEPARTMENT/SELLER Midland Job No. 7220 | | TYPE OF AUDIT Systems | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR J. Dotson |
| AGENDA ITEM 1-10 | CHECKLIST ITEM 2 | WHERE FOUND ALAB-106 Response | DISCUSSED WITH C. Kinney | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. Applicant's report on Quality Assurance action being undertaken - Response to ALAB-106 | | | SAME AS: | |

- 10 MUTATION
- (1) "Bechtel...has prepared procedures...They are being carried out within basic framework of their Quality Assurance Program."
 - (2) "...Nonconformances, if any...will be...documented in accordance with the detailed procedures set forth in...the Bechtel Field Inspection Manual."

11 FINDING

Containment liner plate coating inspection conducted May 1 and May 2, 1973 by Messrs. Newcomb, Grote, Hondorp and Hinson with the following results: "Three plates exhibited defects sufficient to require complete removal and replacement of the prime coating." The following defects were observed:

| | |
|--------------------------|-------------------------|
| Mud cracking - 12 plates | Weld spatter - 3 plates |
| Overspray - 3 plates | Dry Spray - 3 plates |
| Rusting - 4 plates | Sags and Runs- 4 plates |

The report recommended sandblast to some extent on all plates examined. No non-conformance report was generated as a result of this inspection and this is a departure from requirements of (1) and (2) above.

- 12 CORRECTIVE ACTION
- Recommendation:
- (1) Prepare NCR's to cover inspection results as recorded in Inspection Number 2.0
- OR
- (2) Change CPCo submitted response to ALAB-106 to delete reference to carrying out inspection within basic framework of Bechtel QA Program.

| | |
|--|--|
| 13 SCHEDULE COMPLETION DATE 8/17/73 | 14 RESPONSIBILITY FOR CORRECTIVE ACTION E. Felton |
|--|--|

15 CORRECTIVE ACTION TAKEN

Inspection plan C-L-1 (a to f) C-111-1 plan no. Log No. 156 has been implemented and has been in force since 10/12/73.

| | | |
|--|---|---------------------|
| 16 DATE COMPLETED 10/19/73 | 17 SUBMITTED BY RESPONSIBLE AUTHORITY <i>[Signature]</i> | 18 DATE 10/19/73 |
| 19 CORRECTIVE ACTION VERIFIED BY <i>[Signature]</i> | | |

D 510008



QUALITY AUDIT FINDING

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| AUDIT IDENT. | 002 |
| AUDIT DATE | 7-17-73 |
| AS ITEM | 2 |

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|--|--------------------------|--|----------------------------|
| PROJECT/DEPARTMENT/SELLER Midland 7220 | TYPE OF AUDIT Systems | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR J. Dotson |
| AGENDA ITEM 4 | CHECKLIST ITEM 2 | WHERE FOUND Civil Discipline Spec 208A | DISCUSSED WITH D. Grote |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. (1) NOAM Section II No. 6 Para. 4d | | SAME AS: (2) FIM. G-2 Para. 7.4 | |

- (1) "...Standard specifications issued by the discipline Chief Engineer...subject to his approval, modifications are made...for project use...changes to and interpretations of specifications are accomplished through revisions or addenda."
- (2) "The field change request provides field engineering with a means of reporting to project engineering discrepancies in project specifications."

Technical specification C-208 was modified by field and included in subcontract # 7220-FSC-41 prior to obtaining approval of changes from originating group. No field change request was made as required by FIM.

Submit specification to originating group for approval/issue via field change request procedure.

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| SCHEDULE COMPLETION DATE 8/20/73 | RESPONSIBILITY FOR CORRECTIVE ACTION E. Felton |
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Specification C-208A was prepared in the field. There was no discrepancy in any project specification. After preparation, the specification was reviewed and approved by engineering and then issued to the Subcontractor for use prior to any Q related testing work. (See attached letter from P. A. Martinez to E. E. Felton dated July 16, 1973). The FCR will be utilized to request Project Engineering approval of requested changes and/or discrepancies to specifications.

| | | |
|----------------------------|---|------------------|
| DATE COMPLETED 10/19/73 | SUBMITTED BY RESPONSIBLE AUTHORITY James C. Williams Project Field Engineer | DATE 10/19/73 |
|----------------------------|---|------------------|



QUALITY AUDIT FINDING

CONSUMERS POWER COMPANY
RECEIVED
 OCT 29 1973
 1 (C-2)
 10/15/73

MIDLAND PLANT PROJECT

MIDLAND, MICHIGAN

| | | | | | |
|--|---------------------|--|--|-----------------------------|--|
| OBJECT/DEPARTMENT/SELLER Midland 7220 | | TYPE OF AUDIT Construction | | AUDITOR J. Dotson | |
| AGENDA ITEM 9 | CHECKLIST ITEM 1 | WHERE FOUND Field Inspection Manual | | DISCUSSED WITH C. Kinney | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. NQAM Section 111 No. 5M. | | | | SAME AS 9 | |

QUOTATION
 The status of inspections and tests performed on individual items shall be known or readily determinable.



FINDING
 Construction is using the inspection plan in lieu of tags, markings, etc. The auditor can find no acknowledgement in the procedures that one of the objectives of the inspection plan is to provide identification, inspection and test status.

CORRECTIVE ACTION
 Construction to investigate and determine if Quality Control group intends to use any system other than inspection plans to indicate inspection and test status. Request change in FIM procedures for use of inspection plans or other means to indicate status.

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| SCHEDULE COMPLETION DATE 11/16/73 | RESPONSIBILITY FOR CORRECTIVE ACTION D. R. Johnson |
|--------------------------------------|---|

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| DATE COMPLETED 16 | SUBMITTED BY RESPONSIBLE AUTHORITY 17 |
| CORRECTIVE ACTION VERIFIED BY GAK 18 | DATE 19 |



QUALITY AUDIT FINDING

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|--------------|----------|
| AUDIT IDENT. | 2 (C-2) |
| AUDIT DATE | 10/18/73 |
| AGS ITEM | |

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|---|---------------------|----------------------------------|--|----------------------|
| PROJECT/DEPARTMENT/SELLER Midland 7220 | | TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR J. Dotson |
| AGENDA ITEM 2 | CHECKLIST ITEM 1 | WHERE FOUND Field Engineering | DISCUSSED WITH T. Valenzano | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. FIM C-1 5.0 | | | SAME AS P. | |

The PFQCE will coordinate all field request to revise existing FIM procedures.....All change requests are to be submitted to, approved and coordinated by the Chief Field Quality Control Engineer prior to the change being incorporated.

FINDING
The Project Field Engineer developed/issued procedures for design document control, referencing vendor QA requirements and vendor design review.

There are no measures established that identifies the field engineer as the responsible individual for this activity. The procedures show no review approval signature(s).

CORRECTIVE ACTION
Submit proposed procedural changes to chief field quality control engineer. Mark existing distributed copies of above referenced procedures to indicate non-applicable status.

| | |
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| SCHEDULE COMPLETION DATE October 19, 1973 | RESPONSIBILITY FOR CORRECTIVE ACTION E. Felton |
|--|---|

CORRECTIVE ACTION TAKEN
Proposed procedure change submitted to the Chief Field Quality Control Engineer on August 27, 1973, copy of the letter attached. Existing distributed copies of Document Controlled Procedure have been recalled and will be reissued with markings indicating nonapplicable status.

| | | |
|--|---|------------------|
| DATE COMPLETED 10/18/73 | SUBMITTED BY RESPONSIBLE AUTHORITY <i>T. Valenzano</i> | DATE 10/18/73 |
| CORRECTIVE ACTION VERIFIED BY <i>J.I. [Signature]</i> | | DATE 10/18/73 |

D 00008



QUALITY AUDIT FINDING

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|--------------------|----------|
| AUDIT IDENT. 18 | 3 (C-2) |
| AUDIT DATE | 10/18/73 |
| AS ITEM 20 | |

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|---|------------------|--|--|---------------------------------------|
| 1 SUBJECT/DEPARTMENT/SELLER Midland 7220 | | 2 TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | 4 AUDITOR G. Richardson |
| 3 AGENDA ITEM 3 | 5 CHECKLIST ITEM | 6 WHERE FOUND Materials Receiving Files | | 7 DISCUSSED WITH D. Frey/C. Kinney |
| 8 CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. NQAM Section 1 No. 9, Para. 3.7 f | | | 9 SAME AS 8. NQAM Section 2, No. 4, Attach. A | |

10 QUOTATION
PFQCE reviews field purchase orders for Q-List items.

11 FINDING
There is no documented evidence on the Field Materials Requisitions that the PFQCE reviews field purchase orders. For example Field Purchase order C-244 (Cadwelds).

12 CORRECTIVE ACTION
PFQCE to review and sign-off on "Q" listed FMR's.

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| 13 SCHEDULE COMPLETION DATE 11/5/73 | 14 RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton |
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| 15 CORRECTIVE ACTION TAKEN | 16 DATE COMPLETED | 17 SUBMITTED BY RESPONSIBLE AUTHORITY | 18 DATE |
| | | | |

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QUALITY AUDIT FINDING

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|--------------|----------|
| AUDIT IDENT. | 4 (C-2) |
| AUDIT DATE | 10/18/73 |
| AAS ITEM NO. | |

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| PROJECT/DEPARTMENT/SELLER Midland 7220 | | TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR J. I. Dotson |
| AGENDA ITEM 1 | CHECKLIST ITEM 7 | WHERE FOUND Field Engineering | | DISCUSSED WITH T. Valenzano |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. (1) NQAM Section IV Number 1-3 | | | SAME AS #. (2) FIM G-1 3.3 | |

QUOTATION

(1) The project field engineer . . . supervises field engineers of various disciplines whom he trains . . ."

(2) Field engineers have the following quality related activities:

- Initiates field procurement documents
- Verify construction activities for compliance with program criteria
- Perform inspection activities of record
- Review of project documentation

FINDING

Documentation of indoctrination/training of field engineers completed to date and planned has not been maintained.

CORRECTIVE ACTION

Develop documentation for indoctrination/training program completed to date and planned.

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| SCHEDULE COMPLETION DATE 11/5/73 | RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton |
|-------------------------------------|--|

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| DATE COMPLETED | SUBMITTED BY RESPONSIBLE AUTHORITY | DATE |
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| CORRECTIVE ACTION VERIFIED BY QAE | | |
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QUALITY AUDIT FINDING

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|--------------|----------|
| AUDIT IDENT. | 5 (C-2) |
| AUDIT DATE | 10-15-73 |
| AGENCY | |

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|--|---------------------|-------------------------------|--|--|--------------------------|
| PROJECT/DEPARTMENT/SELLER MIDLAND 7220 | | TYPE OF AUDIT CONSTRUCTION | | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR G. RICHARDSON |
| AGENDA ITEM 9 | CHECKLIST ITEM 4 | WHERE FOUND PROJECT FILES | | DISCUSSED WITH L. ALBERT, H. FOSTER | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. SPEC. 7220-C-231 REV. 0 PARA. 10.7 | | | | SAME AS: P.S.A.R. APPENDIX 5C | |

"A manufacturers representative experienced in exothermic splicing of reinforcing bar, shall be present at jobsite at outset of work".....

There is no documentation to indicate that the factory representative who was on the jobsite at the outset of splicing was experienced in exothermic splicing of reinforcing bar.

Obtain required documentation.

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| SCHEDULE COMPLETION DATE 11/16/73 | RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton |
| CORRECTIVE ACTION TAKEN | |

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| DATE COMPLETED | SUBMITTED BY RESPONSIBLE AUTHORITY |
| CORRECTIVE ACTION VERIFIED BY GAE | |
| DATE | |



QUALITY AUDIT FINDING

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|--------------|----------|
| AUDIT IDENT. | 6 (C-2) |
| AUDIT DATE | 10-15-73 |
| AS ITEM | |

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| PROJECT/DEPARTMENT/SELLER MIDLAND 7220 | | TYPE OF AUDIT CONSTRUCTION | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR G. RICHARDSON |
| AGENDA ITEM 9 | CHECKLIST ITEM | WHERE FOUND Q.C. FILES | DISCUSSED WITH L. ALBERT, H. FOSTER | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. FIM G-1 PARA. 6.3 | | | SAME AS #. | |

"All blocks on Inspection Report forms shall contain an entry. Where the signature requirement is on the form, the inspector will enter his signature rather than initials."

FINDING
Block 28 on form QC-C8, "Cadweld Production and Test Report" has not been signed.

CORRECTIVE ACTION
Implement correct useage of Form QC-C8.

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| SCHEDULE COMPLETION DATE 11/5/73 | RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton |
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| CORRECTIVE ACTION TAKEN | DATE COMPLETED | SUBMITTED BY RESPONSIBLE AUTHORITY | DATE |
| | | | |

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QUALITY AUDIT FINDING

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| AUDIT IDENT. |
| 7 (C-2) |
| AUDIT DATE |
| 10/15/73 |
| AAS ITEM |
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| PROJECT / DEPARTMENT / SELLER Midland 7220 | | TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR G. Moulton |
| AGENDA ITEM 5 | CHECKLIST ITEM 1, 6, & 7 | WHERE FOUND Field Engineering | DISCUSSED WITH Pat Nichols | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. FIM G-2 Rev. 3 Para. 3.3.1.2 | | | SAME AS S. | |

10 QUOTATION

"The Project Field Engineer shall review or revise and sign the distribution list.

11 FINDING

Evidence of review by Project Field Engineer not apparent.

12 CORRECTIVE ACTION

The drawing distribution list should be reviewed and signed by PFE.

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| SCHEDULE COMPLETION DATE 10/31/73 | RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton |
|--------------------------------------|--|

13 CORRECTIVE ACTION TAKEN

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| DATE COMPLETED | SUBMITTED BY RESPONSIBLE AUTHORITY |
| | |
| CORRECTIVE ACTION VERIFIED BY OAS | DATE |
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QUALITY AUDIT FINDING

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|--------------|----------|
| AUDIT IDENT. | 8 (C-2) |
| AUDIT DATE | 10/15/73 |
| AS ITEM | |

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|---|----------------|--------------------------------|--|----------------------|
| OBJECT/DEPARTMENT/SELLER Midland 7220 | | TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR A. Walker |
| AGENDA ITEM 4 | CHECKLIST ITEM | WHERE FOUND Quality Control | DISCUSSED WITH C. Kinney | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. FIM, G-6, Para. 3.3.2 and 3.1.3 | | | SAME AS | |

- A. "All changes made on a released "Record Copy" of an Inspection Plan shall be made by a Quality Control Engineer.
Released "Record Copy" Inspection Plans may require changes necessitated by revisions to prescribed Project requirements and Program Criteria. All such changes will be controlled by revision numbers to the Plan."
- B. "QC hold points shall be identified in the Inspection Plan....."

- FINDING
11
- Material Re eiving Instructions are being used in lieu of Inspection Plans.
- A. A written correction was made on Material Receiving Instruction C-1. Although the change initialed the document had not been revised and reissued. See block 10, item A.
- B. No hold points were specified on the Material Receiving Instructions reviewed.

- CORRECTIVE ACTION
12
- A. Have the subject Material Receiving Instruction revised, reviewed, approved, and reissued.
- B. Specify hold points on Material Receiving Instructions, since these instructions can be used as an alternate to Inspection Plans.

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| SCHEDULE COMPLETION DATE 13 11/5/73 | RESPONSIBILITY FOR CORRECTIVE ACTION 14 E. E. Felton |
| CORRECTIVE ACTION TAKEN 15 | |

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| DATE COMPLETED 16 | SUBMITTED BY RESPONSIBLE AUTHORITY 17 |
| CORRECTIVE ACTION VERIFIED BY QAE 18 | |
| DATE | |

D 50008



QUALITY AUDIT FINDING

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|------------------|----------|
| AUDIT ID# 18 | 9 (C-2) |
| AUDIT DATE | 10/16/73 |
| ISSUE ITEM 19 | |

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|---|----------------------|--------------------------------|--|-----------------------------|
| PROJECT/DEPARTMENT/SELLER Midland, Job 7220 | | TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR A. Walker |
| AGENDA ITEM 10 | CHECKLIST ITEM 12 | WHERE FOUND Quality Control | | DISCUSSED WITH J. Miller |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. Field Inspection Manual, G-4, Section 2.3 | | | SAME AS #. 9 | |

QUOTATION
10

A. "The Equipment List includes the project identification number, the manufacturer's serial number, model number, and the interval of accuracy verification."

B. "The certification label is affixed to the equipment and displays the date of certification expiration date, and the identification of the agency performing the accuracy verification."

C. "Manufacturer's data shall be available for review."

FINDING
11

See Attached Sheet

CORRECTIVE ACTION
12

Implement the requirements of procedure G-4 of the FIM.

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| SCHEDULE COMPLETION DATE 13 | RESPONSIBILITY FOR CORRECTIVE ACTION 14 |
| 11/16/73 | E. E. Felton |

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| DATE COMPLETED 16 | SUBMITTED BY RESPONSIBLE AUTHORITY 17 |
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|---|------------|
| CORRECTIVE ACTION VERIFIED BY GAS 18 | DATE 19 |
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D 30005

BLOCK 11

The method used for Control of Measuring and Testing Equipment did not meet certain requirements of procedure G-4 of the FIM in the following areas:

1. The Equipment List required by block 10-A did not contain the interval of accuracy verification (of calibration). The work sheet did not show the interval of accuracy verification for 33 items.
2. The labeling system described in block 10-B has not been implemented. Seven items were checked and none had the label described in block 10. Two had labels giving the date of last calibration and initials of the person performing the calibration only. One of these units, a Magna Magic unit, model MS-27, serial #LEB 5175, had a sticker indicating calibration November 23, 1971. This unit does not appear in the list of measuring and test equipment.
3. Manufacturer's data was not available on all items.
4. Section 2.3 (d) and (e) refer to a certification report. Certification was available only on a few items.
5. The project identification number noted in paragraphs (g) and (h) of section 2.3 of the FIM is not affixed to the equipment checked.
6. The equipment list used (paragraph f) is an informal list filled out in ink with mark - throughs and erasurs.
7. The Measuring and Testing Equipment Maintenance Record is not being completed and utilized as specified by FIM, Appendix A.



QUALITY AUDIT FINDING

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| AUDIT IDENT. |
| 10 (C-2) |
| AUDIT DATE |
| 10/18/73 |
| AAS ITEM |
| 29 |

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|--|-----------------------|---------------------------------|--|--|------------------------|
| 1 SUBJECT/DEPARTMENT/SELLER Midland, Job 7220 | | 2 TYPE OF AUDIT Construction | | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | 6 AUDITOR A. Walker |
| 3 AGENDA ITEM 4 | 4 CHECKLIST ITEM 2 | 5 WHERE FOUND Q. C. Files | | 7 DISCUSSED WITH J. Miller | |

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|---|--|
| 8 CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. Project Special Provisions Notice, SF/PSP #1, | 9 SAME AS 8. Section 4.6.7 -- FIM, G-6, 3.1.3 |
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10 QUOTATION

A. "QC Hold points are designated inspection tasks which shall be performed by the QC Engineer and beyond which work shall not proceed without the inspection task being satisfactorily completed by the QC Engineer."

B. "Items received without required documentation shall be held in "HOLD FOR QC CLEARANCE" status until the required documentation is received and accepted."

11 FINDING

A number of inspection plans did not specify "HOLD POINTS" for required documentation and inspection requirements met. Examples are:

1. Master Inspection Plan C-R-1
2. Inspection Plan C-39-2
3. Inspection Plan C-33-1

12 CORRECTIVE ACTION

Evaluate hold point application and provide calrification

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| 13 SCHEDULE COMPLETION DATE 11/16/73 | 14 RESPONSIBILITY FOR CORRECTIVE ACTION D. R. Johnson |
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| 15 CORRECTIVE ACTION TAKEN | |
| 16 DATE COMPLETED | 17 SUBMITTED BY RESPONSIBLE AUTHORITY |
| 18 CORRECTIVE ACTION VERIFIED BY QAE | DATE |



QUALITY AUDIT FINDING

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|--------------|----------|
| AUDIT IDENT. | 11 (C-2) |
| AUDIT DATE | 10/15/73 |
| AAS ITEM | |

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|---|--------------------------------|--|--|----------------------|
| PROJECT/DEPARTMENT/SELLER Midland, Job 7220 | | TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR A. Walker |
| AGENDA ITEM 4 | CHECKLIST ITEM 1-A thru 1-G | WHERE FOUND Field Inspection Manual | DISCUSSED WITH | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. NQAM Introduction, Section IV | | | SAME AS #. | |

QUOTATION
10
See Attached Sheet.

- FINDING
11
- A. A number of conflicts exist between the FIM and the sections of the NQAM quoted. The FIM does not contain requirements for receiving, storing, protecting, and issuing of materials and equipment as required by quotation "B" in block 10.
 - 3. The FIM is not organized as required by quotation "C" in block 10.

CORRECTIVE ACTION
12

"The program is receptive to changing conditions and the manual is designed to incorporate revisions and changes promptly as the need arises. Requests for changes to the NQAM should be sent to the Manager-Quality Assurance, preferably in the form of a proposed draft. The Manager Quality Assurance will arrange for evaluation and appropriate approvals of the proposed change, and if incorporated will send the revised material to holders of the manual." A request should be submitted by the procedure stated to resolve the conflicts between the NQAM and the FIM.

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| SCHEDULE COMPLETION DATE 11/16/73 | RESPONSIBILITY FOR CORRECTIVE ACTION D. R. Johnson |
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CORRECTIVE ACTION TAKEN
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| DATE COMPLETED 14 | SUBMITTED BY RESPONSIBLE AUTHORITY 17 |
| CORRECTIVE ACTION VERIFIED BY QAR 18 | DATE 19 |

D 50008

10.

- A. The NQAM Introduction states,
"The Nuclear Quality Assurance Manual is the primary document for all phases of the Quality Assurance Program. The requirements of the NQAM shall govern except in cases of conflict with the QC Manual-ASME Nuclear Components. In such cases the ASME manual shall govern unless the requirements of the NQAM are more stringent.
- B. The NQAM, Section IV, Number 4, states,
"Receiving, inspecting, storing, protecting, and issuing of materials and equipment at the jobsite are accomplished by the Materials Supervisor and his personnel with technical assistance rendered by Field Engineers when needed, in accordance with requirements in the Field Inspection Manual."
- C. The NQAM, Section IV, Number 5, states,
"Field inspection is carried out in accordance with procedures given in the Field Inspection Manual, the Quality Control Manual - ASME Nuclear Components, and any special project requirements.

Field inspection procedures provided in the FIM are organized according to discipline into the following sections.

- Section 1 - General
- Section 2 - Civil/Structural
- Section 3 - Electrical
- Section 4 - Mechanical
- Section 5 - Welding
- Section 6 - Forms"



QUALITY AUDIT FINDING

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|--------------|----------|
| AUDIT CLIENT | 12 (C-2) |
| AUDIT DATE | 10/15/73 |
| AAS ITEM | |

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|--|---------------------|-----------------------------------|--|----------------------|
| OBJECT/DEPARTMENT/SELLER Midland, Job 7220 | | TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR A. Walker |
| AGENDA ITEM 6 | CHECKLIST ITEM 2 | WHERE FOUND Material Receiving | DISCUSSED WITH Frey & Mathews | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. NQAM, Section V, No. 1 | | | SAME AS P. | |

10 "The overall quality assurance program is conducted in accordance with the provisions of the Nuclear Quality Assurance Manual. The program is supplemented by the Field Inspection Manual, the Procurement Inspection Department Manual, and the Bechtel Quality Control Manual - ASME Nuclear Components."

11 FINDING
The purchase material receiving area is utilizing three documents, (1) Project Special Provisions Notices #1 (2) Material Control Procedure, FI-101 and (3) Field Procurement Procedures. Only the Project Special Provisions Notice shows review and approval signatures, the copy being used was a xerox copy and could not be considered controlled.

12 CORRECTIVE ACTION
Provide approved, controlled direction to materials group.

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| 13 SCHEDULE COMPLETION DATE 11/16/73 | 14 RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton |
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15 CORRECTIVE ACTION TAKEN

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|--------------------------------------|---------------------------------------|
| 16 DATE COMPLETED | 17 SUBMITTED BY RESPONSIBLE AUTHORITY |
| 18 CORRECTIVE ACTION VERIFIED BY QAS | DATE |



QUALITY AUDIT FINDING

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| AUDIT ENT. | 13 (C-3) |
| AUDIT DATE | 10/16/73 |
| AS ITEM | |

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| PROJECT/DEPARTMENT/SECTOR 7220 - Midland | | TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR G. Richardson |
| AGENDA ITEM 9 | CHECKLIST ITEM | WHERE FOUND Quality Control Files | | DISCUSSED WITH Al Albert, H. Foster |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. FIM, G-1, Para. 6.0 | | | SAME AS | |

The specified forms which are an integral part of the procedures are mandatory.

6.1 "The test/data form exhibited in the Forms Section of the FIM are also mandatory. The application of these forms will be identified in the inspection plans."

6.2 "The field may develop and use forms in addition to those prescribed.... Such forms will not be substituted for forms indicated to be mandatory."

| | |
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| FINDING 11 | <ol style="list-style-type: none"> Quality Control Forms Nos. QC-C4; QC-C5; QC-C6; are not being used. The application of these forms are not identified in the inspection plans. Inspection Plan Form QC-G6-2a has been substituted for form QC-G6-2 with out required changes to the FIM. |
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| CORRECTIVE ACTION 12 | <ol style="list-style-type: none"> Implement use of these forms in accordance with the FIM. Revise FIM |
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| SCHEDULE COMPLETION DATE 13 11/16/73 | RESPONSIBILITY FOR CORRECTIVE ACTION 14 (1) E. Felton (2) D. R. Johnson |
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| CORRECTIVE ACTION TAKEN 15 | |
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| DATE COMPLETED 16 | SUBMITTED BY RESPONSIBLE AUTHORITY 17 |
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| CORRECTIVE ACTION VERIFIED BY GAS 18 | DATE |
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QUALITY AUDIT FINDING

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| AUDIT IDENT. 19 | 14 (C-2) |
| AUDIT DATE | 10/15/73 |
| AAS ITEM 20 | |

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|---|---------------------|--|--|-------------------------------|
| SUBJECT/DEPARTMENT/SELLER MIDLAND 7220 | | TYPE OF AUDIT 2 CONSTRUCTION | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR 4 R. SOMMERFELD |
| AGENDA ITEM 3 8 | CHECKLIST ITEM 4 | WHERE FOUND 5 LINER PLATE ASSY AREA | | DISCUSSED WITH 7 J. STOCKS |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. 8 7220-C-111, 9.2.4 | | | SAME AS 9 RT-XG-1, 6.2 | |

- 10 QUOTATION
- 11
- (8) All radiographic examination shall be done in accordance with...RT-XG-1, Rev. 0.
 - (9) Film location and identification numbers shall be permanently marked on pipe or vessel....

12 FINDING

13

Film location and identification numbers are not permanently marked on liner plate assemblies.

14 CORRECTIVE ACTION

15

1. Request revision to 7220-C-111 to permit maintenance of written records of film locations.

| | |
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| SCHEDULE COMPLETION DATE 16 11/16/73 | RESPONSIBILITY FOR CORRECTIVE ACTION 17 E. E. Felton |
|--|--|

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| CORRECTIVE ACTION TAKEN 18 | DATE COMPLETED 19 | SUBMITTED BY RESPONSIBLE AUTHORITY 20 | DATE 21 |
| CORRECTIVE ACTION VERIFIED BY QAE 22 | | | |



QUALITY AUDIT FINDING

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|--------------|----------|
| AUDIT IDENT. | 15 (C-2) |
| AUDIT DATE | 10/16/73 |
| AAS ITEM | |

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|---|---------------------|----------------------------------|--|--|----------------------|
| PROJECT/DEPARTMENT/SELLER MIDLAND 7220 | | TYPE OF AUDIT CONSTRUCTION | | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR J. DOTSON |
| AGENDA ITEM 9 | CHECKLIST ITEM 4 | WHERE FOUND FIELD PROCUREMENT | | DISCUSSED WITH R. MATHEWS | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. FIM G-1 1.0 | | | | SAME AS #. | |

18
 The prodedures in this manual assign responsibilities and provide direction for the minimum inspection....of all construction activities affecting the permanent plant.....

11
 FINDING
 MRI's are being utilized in lieu of Inspection Plans but are not being processed for any item other than "Q" Listed.

12
 CORRECTIVE ACTION
 Obtain clarification defining applicability of inspection planning to Non "Q" items.

| | |
|--------------------------------------|--|
| SCHEDULE COMPLETION DATE 11/16/73 | RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton |
|--------------------------------------|--|

15
 CORRECTIVE ACTION TAKEN

| | |
|-----------------------------------|------------------------------------|
| DATE COMPLETED | SUBMITTED BY RESPONSIBLE AUTHORITY |
| CORRECTIVE ACTION VERIFIED BY GAE | DATE |



QUALITY AUDIT FINDING

| |
|--------------|
| AUDIT IDENT. |
| 16 (C-2) |
| AUDIT DATE |
| 10/16/73 |
| AS ITEM |
| 28 |

| | | | | |
|---|----------------|---------------------------------|--|--------------------------|
| PROJECT/DEPARTMENT/SELLER MIDLAND 7220 | | TYPE OF AUDIT CONSTRUCTION | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR R. SOMMERFELD |
| AGENDA ITEM 8 | CHECKLIST ITEM | WHERE FOUND ROD STORAGE ROOM | DISCUSSED WITH C. KINNEY | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. WFMC-1 REV. 10, PARA. 2.5 & 3.1 | | | SAME AS #. | |

(8) Para. 2.5.1: Filler materials for which all required documentation has been received, reviewed, and accepted shall be considered "certified".
 Para. 2.5.2, 2.5.3, 2.5.4: Requires color coding of filler metals as certified by painted color code.
 Para. 3.1: Upon receipt of filler metal, each container shall be inspected for damage.
 Para. 3.3: Filler materials receiving reports shall be checked by SFWE.... shall be released for useage by SFWE.

FINDING

- 1.) Receiving reports not in QC files for PO# 7220-F-5218, 5219, 5220.
- 2.) No verification of acceptability of weld rod material prior to "certifying" by application of paint.
- 3.) Review of documents performed by QCE rather than SFWE.
- 4.) One (1) lot of bare stainless steel wire type 308L, 3/32" arealloy heat 526193 not color coded as certified.

CORRECTIVE ACTION

- 1.) Receiving reports to be put in file
- 2.) PFQCE to issue instructions requiring review and acceptance of materials test reports prior to applying paint code.
- 3.) WFMC-1 should be revised to show QCE review and release.
- 4.) Color coding to be applied after checking certifications.

| | |
|---|--|
| SCHEDULE COMPLETION DATE 13 11/5/73 | RESPONSIBILITY FOR CORRECTIVE ACTION 14 E. E. Felton |
|---|--|

CORRECTIVE ACTION TAKEN

- 1.) completed 10/16/73
- 2.) completed 10/16/73
- 3.) SFWE to review documentation
- 4.) completed 10/16/73

| | |
|---|--|
| DATE COMPLETED 16 | SUBMITTED BY RESPONSIBLE AUTHORITY 17 |
| CORRECTIVE ACTION VERIFIED BY QAE 18 | |
| DATE 19 | |

D 30006



QUALITY AUDIT FINDING

| | |
|--------------|----------|
| AUDIT IDENT. | 17 (C-2) |
| AUDIT DATE | 10/15/73 |
| AAS ITEM | |

| | | | | |
|--|----------------|-------------------------------|--|--------------------------|
| PROJECT/DEPARTMENT/SELLER MIDLAND 7220 | | TYPE OF AUDIT CONSTRUCTION | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR R. SOMMERFELD |
| AGENDA ITEM 8 | CHECKLIST ITEM | WHERE FOUND QC SECTION | DISCUSSED WITH J. STOCKS/C. KIRNEY | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. 7220-C-111, PARA. 10.2 | | | SAME AS I. FIM G-1, 6.1, 6.2; FORM QC-C11 | |

15 QUOTATION

(8) Documentation requirements shall be maintained in accordance with the procedures and forms outlined in Bechtel Field Inspection Manual.

(9) "The test/data forms...are also mandatory."

The field may develop and use forms in addition to those prescribed by the FIM... Such forms will not be substituted for forms indicated to be mandatory.

- 11 FINDING
- Records of inspection of liner plate are being maintained on field prepared "rollout" dwg. (FSK-C34)
 - A TWX from D. R. Johnson, Chief Field QCE, authorizes substitution of the "rollout" dwg. titled "Liner Plate Fabrication NDE Control." This is in conflict with FIM G-1, 6.2 quoted above.

- 12 CORRECTIVE ACTION
- Amend FIM G-1 to permit substitution of field prepared forms for mandatory forms after review and approval by chief field quality control engineer.

| | |
|---|---|
| 13 SCHEDULE COMPLETION DATE 11/26/73 | 14 RESPONSIBILITY FOR CORRECTIVE ACTION D. R. Johnson, CFQCE |
|---|---|

15 CORRECTIVE ACTION TAKEN

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|--------------------------------------|---------------------------------------|
| 16 DATE COMPLETED | 17 SUBMITTED BY RESPONSIBLE AUTHORITY |
| 18 CORRECTIVE ACTION VERIFIED BY QAE | DATE |



QUALITY AUDIT FINDING

| | |
|--------------|----------|
| AUDIT IDENT. | 18 |
| | 18(C-2) |
| AUDIT DATE | 10/15/73 |
| AAS ITEM | |

| | | | | | |
|--|---------------------|---------------------------------|--|--|----------------------------------|
| PROJECT/DEPARTMENT/SELLER 1 MIDLAND 7220 | | TYPE OF AUDIT 2 CONSTRUCTION | | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR 4 J. DOTSON/R. SOMMER |
| AGENDA ITEM 3 1 | CHECKLIST ITEM 4 | WHERE FOUND 5 QC OFFICE | | DISCUSSED WITH 7 C. KELLY | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. 8 FIM G-1; 3.8 | | | | SAME AS #. 9 | |

10 (8) The PFQCE's reporting relationship is shown in figure 1 contained in the Project Special Provision Section of the QC Notices Manual.

11 FINDING
The Project Special Provision section of the QC Notices Manual does not contain figure 1.

12 CORRECTIVE ACTION
1. Insert blank figure 1 stating "in preparation"; or
2. Insert missing figure 1.

| | |
|---|---|
| SCHEDULE COMPLETION DATE 13 11/16/73 | RESPONSIBILITY FOR CORRECTIVE ACTION 14 D. R. Johnson, CFQCE |
|---|---|

| | | | |
|-------------------------------|----------------------|--|------------|
| CORRECTIVE ACTION TAKEN 15 | DATE COMPLETED 16 | SUBMITTED BY RESPONSIBLE AUTHORITY 17 | DATE 18 |
|-------------------------------|----------------------|--|------------|

D 50008



QUALITY AUDIT FINDING

| |
|--------------|
| AUDIT IDENT. |
| 19 (C-2) |
| AUDIT DATE |
| 10/16/73 |
| AAS ITEM |
| 20 |

| | | | | |
|---|---------------------|------------------------------------|--|---------------------------------------|
| PROJECT/DEPARTMENT/SELLER Midland 7220 | | TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR R. Sommerfeld |
| AGENDA ITEM 5 | CHECKLIST ITEM 2 | WHERE FOUND Construction Office | | DISCUSSED WITH J. Newgen/C. Kinney |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. NQAM, SECTION V, NO. 2, Para. 2, 3.2, Attach. A | | | SAME AS: BQCM - ASME SECTION I, 1.4.3.e | |

10 (8) "Responsibility for . . . distribution of . . . various supporting manuals is shown on attachment "A" "copies shall be loaned to those who need them"

Attachment A established responsibility for distribution and control to Quality Assurance.

(9) "Each Project Superintendent (7 copies) to be . . ."

11 FINDING
QA organization has not distributed Bechtel Quality Control Manual - ASME to Project Superintendent. Manuals requested by construction in July, 1973.

12 CORRECTIVE ACTION
QA to expedite issue of 7 copies of BQCM - ASME to Project Superintendent.

| | |
|--|--|
| 13 SCHEDULE COMPLETION DATE 11/ /73 | 14 RESPONSIBILITY FOR CORRECTIVE ACTION W. S. Gibbons |
|--|--|

| | |
|--------------------------------------|---------------------------------------|
| 15 CORRECTIVE ACTION TAKEN | |
| 16 DATE COMPLETED | 17 SUBMITTED BY RESPONSIBLE AUTHORITY |
| 18 CORRECTIVE ACTION VERIFIED BY QAE | |
| DATE | |

05008



QUALITY AUDIT FINDING

| | |
|--------------|----------|
| AUDIT IDENT. | 20 (C-2) |
| AUDIT DATE | 10/17/73 |
| AAS ITEM | |

| | | | | |
|--|----------------|--------------------------------|--|----------------------|
| OBJECT/DEPARTMENT/SELLER Midland 7220 | | TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR J. Dotson |
| AGENDA ITEM 9 | CHECKLIST ITEM | WHERE FOUND Quality Control | DISCUSSED WITH E. Felton, Z. Tucker | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. NQAM Section I Number 9d | | | SAME AS I. | |

Quality Control Engineers and technicians initiate and verify corrective action.

FINDING

The FIM Procedure G-3 needs further definition of the QC Engineer's responsibilities in non-conformance reporting and verifying corrective action.

CORRECTIVE ACTION

Provide clarification of Procedure G-3.

| | |
|--------------------------------------|---|
| SCHEDULE COMPLETION DATE 11/16/73 | RESPONSIBILITY FOR CORRECTIVE ACTION D. R. Johnson |
|--------------------------------------|---|

CORRECTIVE ACTION TAKEN

| | |
|-----------------------------------|------------------------------------|
| DATE COMPLETED | SUBMITTED BY RESPONSIBLE AUTHORITY |
| CORRECTIVE ACTION VERIFIED BY GAS | DATE |



QUALITY AUDIT FINDING

| | |
|--------------|----------|
| AUDIT IDENT. | 21 (C-2) |
| AUDIT DATE | 10/18/73 |
| AS ITEM | |

| | | | | | |
|--|------------------------|------------------------------------|--|--|---------------------------------|
| PROJECT/DEPARTMENT/SELLER 1 Midland 7220 | | TYPE OF AUDIT 2 Construction | | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR 4 G. Moulton |
| AGENDA ITEM 3 5 | CHECKLIST ITEM 4 18 | WHERE FOUND 5 Field Engineering | | | DISCUSSED WITH 7 Pat Nichols |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. 6 FIM G-2 Rev. 3 Para. 4.1 and 3.3 | | | | SAME AS #. 9 | |

10
4.1 A DCN will be issued in accord with engineering drawing control procedures and will be treated as a drawing transmittal covered by paragraphs 3.1, 3.2, and 3.3 of this procedure.

3.3.1.1 New drawings or revisions from Project Engineering, after being logged, shall be distributed by the Print Coordinator/Clerk to voiding the old revisions per paragraph 5.0 of this procedure.

Note:
DCN Drawing Change Notice

11
FINDING
Two distributed prints of 7220-C-132 rev 3 were located in the survey group(file and truck) with no indication on the subject drawings that DCN # 2 had been issued. This DCN was also not available in the survey group.

12
CORRECTIVE ACTION
Correct existing discrepancies and review remaining DCNS for procedure compliance.

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| SCHEDULE COMPLETION DATE 13 11/5/73 | RESPONSIBILITY FOR CORRECTIVE ACTION 14 E. E. Felton |
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| CORRECTIVE ACTION TAKEN 15 | | DATE 16 |
| DATE COMPLETED 16 | | SUBMITTED BY RESPONSIBLE AUTHORITY 17 |
| CORRECTIVE ACTION VERIFIED BY QAR 18 | | DATE 19 |

D 50005

QUALITY AUDIT FINDING



| | |
|--------------------|----------|
| AUDIT IDENT. 18 | 22 (C-2) |
| AUDIT DATE | 10/15/73 |
| AAS ITEM 19 | |

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|---|---------------------|--------------------|--|---------------------|
| PROJECT/DEPARTMENT/SELLER 1 | | TYPE OF AUDIT 2 | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR 3 |
| Midland 7220 | | Construction | | G. Moulton |
| AGENDA ITEM 4 | CHECKLIST ITEM 5 | WHERE FOUND 6 | | DISCUSSED WITH 7 |
| 3 | 14 | Field Engineering | | Pat Nichols |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. 8 | | | SAME AS #. 9 | |
| FIM G-2 Rev. 3 Para. 3.3.2.2 | | | | |

10
 "Drawing distribution shall be individually determined by the Project Field Engineer and noted on the drawing control card."

11
 FINDING
 Vendor drawing distribution is determined by the Print Coordinator/Clerk

12
 CORRECTIVE ACTION
 Vendor drawing distribution should be determined by the Project Field Engineer and identified on drawing control cards.

| | |
|--------------------------------|--|
| SCHEDULE COMPLETION DATE 13 | RESPONSIBILITY FOR CORRECTIVE ACTION 14 |
| 11/16/73 | E. E. Felton |

15
 CORRECTIVE ACTION TAKEN

| | |
|---|--|
| DATE COMPLETED 16 | SUBMITTED BY RESPONSIBLE AUTHORITY 17 |
| CORRECTIVE ACTION VERIFIED BY GAE 18 | DATE |

D 50028

QUALITY AUDIT FINDING

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|--------------------|----------|
| AUDIT IDENT. 19 | 23 (C-2) |
| AUDIT DATE | 10/17/73 |
| AAS ITEM 20 | |

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|--|----------------------|----------------------------------|--|-------------------------------|
| PROJECT/DEPARTMENT/SELLER Midland 7220 | | TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR G. Moulton |
| AGENDA ITEM 5 | CHECKLIST ITEM 21 | WHERE FOUND Field Engineering | | DISCUSSED WITH Pat Nichols |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. FIM G-2 Rev. 3 Para. 5.1 & 7.3.3 | | | SAME AS #. | |

5.1 "The Print Coordinator/Clerk shall assure that superseded drawings are withdrawn from use. The responsible personnel shall exchange the old drawing for the new revision and if the old drawing is to be retained it shall be marked VOID."

7.3.3 The Print Coordinator/Clerk shall ascertain withdrawal from use of superseded specifications by application of paragraph 5.0 of this procedure.

5.1 Certain superseded drawings have not been withdrawn from use in the survey group.

7.3.3 The Print Coordinator/Clerk does not verify that superseded specifications are withdrawn from use in the QC group.

The Print Coordinator/Clerk should be instructed to verify the withdrawal from use of superseded drawings and specifications in accordance with paragraph 5.0.

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| SCHEDULE COMPLETION DATE 11/16/73 | RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton |
|--------------------------------------|--|

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| DATE COMPLETED | SUBMITTED BY RESPONSIBLE AUTHORITY | CORRECTIVE ACTION TAKEN |
| CORRECTIVE ACTION VERIFIED BY QAS | DATE | |

QUALITY AUDIT FINDING

| | |
|--------------|----------|
| AUDIT IDENT. | 24 (C-2) |
| AUDIT DATE | 10/18/73 |
| AAS ITEM | |

| | | | | |
|--|----------------------|----------------------------------|--|-----------------------|
| PROJECT/DEPARTMENT/SELLER Midland 7220 | | TYPE OF AUDIT Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR G. Moulton |
| AGENDA ITEM 3 | CHECKLIST ITEM 24 | WHERE FOUND Field Engineering | DISCUSSED WITH Pat Nichols | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. FIM G-2, Rev. 3, Para. 6.1 | | | SAME AS I. | |

18 QUOTATION

"The Print Coordinator/Clerk shall check the field drawing log against the Drawing Control Register to assure that the latest drawings have been received and inform the Project Field Engineer of any omissions or discrepancies."

11 FINDING

See Attached Sheet

12 CORRECTIVE ACTION

A review of the vendor drawing card file and vendor drawings against the vendor print control register should be made. All discrepancies should be resolved.

| | |
|---|---|
| 13 SCHEDULE COMPLETION DATE 11/16/73 | 14 RESPONSIBILITY FOR CORRECTIVE ACTION E. E. Felton |
|---|---|

15 CORRECTIVE ACTION TAKEN

| | |
|--------------------------------------|---------------------------------------|
| 16 DATE COMPLETED | 17 SUBMITTED BY RESPONSIBLE AUTHORITY |
| 18 CORRECTIVE ACTION VERIFIED BY QAC | DATE |

ATTACHMENT TO QUALITY AUDIT FINDING 24 (C-2)

FINDING:

The following discrepancies were found in vendor drawing control system:

1. The engineering vendor print control register lists drawing M 1.0-2-0 but there is no listing for this drawing in the card file and no drawing in the control vendor print file.
2. The engineering vendor print control register lists drawing M 1.03-3-3, the card file lists revision 2 and the drawing was not in the file.
3. The vendor print control register lists drawing M 1.0-4 Revision 3 the card file lists revision 2 and revision 2 was found in the file.
4. The vendor print control register lists drawing M 1.0-6-3 and indicates it has been superseded by M 1.0-38-2. M 1.0-6-2 was found in the file with no indication of its superseded status.
5. The vendor print control register lists drawing M 1.0-10-4 and indicates it has been superseded by M 1.0-45-1. M 1.0-10-4 was found in the file with no indication of its superseded status.

QUALITY AUDIT FINDING

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|--------------------|
| AUDIT IDENT. 19 |
| 25 (C-2) |
| AUDIT DATE |
| 10/18/73 |
| BAS ITEM 20 |

| | | | | |
|--|----------------|-------------------|--|----------------|
| PROJECT/DEPARTMENT/SELLER | | TYPE OF AUDIT | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR |
| Midland 7220 | | Construction | | G. Moulton |
| AGENDA ITEM | CHECKLIST ITEM | WHERE FOUND | | DISCUSSED WITH |
| 5 | 28 | Field Engineering | | Pat Nichols |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. | | | SAME AS 1. | |
| GIM G-2, Rev. 3, Para. 7.3.2 | | | | |

QUOTATION
10

"A copy of outdated specifications or procedures may be retained in a separate file for future job site reference and shall be marked void."

FINDING
11

The following superseded specifications were found in the control specification file: C-25, C-30, C-31, C-32 and C-55. These specifications have been superseded by the following: C-225, C-230, C-231, C-232, and C-255 respectively. The cards in the card file were not marked void with the exception of C-32.

CORRECTIVE ACTION
12

A review of the specification card file and specifications against the Requisition, Specification and Addenda Register should be made. All discrepancies should be resolved.

| | |
|--------------------------|--------------------------------------|
| SCHEDULE COMPLETION DATE | RESPONSIBILITY FOR CORRECTIVE ACTION |
| 13 11/16/73 | 14 E. E. Felton |

CORRECTIVE ACTION TAKEN
15

| | |
|----------------|------------------------------------|
| DATE COMPLETED | SUBMITTED BY RESPONSIBLE AUTHORITY |
| 16 | 17 |

| | |
|-----------------------------------|------|
| CORRECTIVE ACTION VERIFIED BY QAS | DATE |
| 18 | |

QUALITY AUDIT FINDING

| | |
|--------------------|----------|
| AUDIT IDENT. 18 | 26 (C-2) |
| AUDIT DATE | 10/18/73 |
| ASST ITEM 20 | |

| | | | | |
|---|-----------------------|------------------------------------|--|------------------------|
| PROJECT/DOCUMENT/SELLER Midland 7220 | | TYPE OF AUDIT 2 Construction | <input checked="" type="checkbox"/> FIELD <input type="checkbox"/> OFFICE | AUDITOR 6 J. Dotson |
| AGENDA ITEM 3 2 | CHECKLIST ITEM 4 5 | WHERE FOUND 5 Construction site | DISCUSSED WITH 7 C. Kinney | |
| CONTROLLING DOCUMENT, SECTION, PARAGRAPH, ETC. 8 FIM 3.4 A | | | SAME AS 1. 9 | |

10 QUOTATION
The Chief Field Quality Control Engineer prepares and maintains the Field Inspection Manual (FIM).

11 FINDING
Indoctrination and Training of QC personnel provisions notice identified as SF/PSP #3 and SF/PSP #2 (See attached cover sheets) Both issued for use on Midland.

12 CORRECTIVE ACTION
Determine correct SF/PSP and recall one not applicable.

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| SCHEDULE COMPLETION DATE 13 11/16/73 | RESPONSIBILITY FOR CORRECTIVE ACTION 14 D. R. Johnson |
|---|--|

| | |
|---|--|
| CORRECTIVE ACTION TAKEN 15 | |
| DATE COMPLETED 16 | SUBMITTED BY RESPONSIBLE AUTHORITY 17 |
| CORRECTIVE ACTION VERIFIED BY QAE 18 | DATE 19 |

Bechtel Power Corporation

Interoffice Memorandum

To J. Connolly

Date January 28, 1974

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

From L. Carter

of Field Procurement

Copies to J. Brush
PO File

At Midland, Michigan

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

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


L. Carter
Material Coordinator

SOUTHERN BOILER & TANK WORKS, INC.

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

(901) 527-7371 • 1199 THOMAS STREET



P. O. BOX 7274 • MEMPHIS, TENN. 38107

January 25, 1974

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

Attention: Mr. Lee Carter

Gentlemen:

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

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

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

Sincerely,

SOUTHERN BOILER & TANK WORKS, INC.

Robert L. Strong

Robert L. Strong
Chief Engineer

RLS:dh

NONCONFORMANCE REPORT

1. PAGE 1 OF 1
14. NCR NO. 47

| | | | | |
|---|------|--|---------------------------------------|-----------------|
| 2. DRAWING/PART NO. S2-6-U-2 | REV. | 7. PROJECT NO. 7220 | 12. REPORTED BY <i>C. J. Clark</i> | DATE 1-21-74 |
| 3. ITEM DESCRIPTION Upper Liner Plate | | 8. ITEM LOCATION Liner Plate Assembly Area | 13. VALIDATED BY <i>M. Kelly</i> | DATE 1-21-74 |
| 4. SERIAL NUMBER See Block 19. | | 9. STARTUP SYSTEM NO. NA | 14. REPLACEMENT PART NO. NA | P.C.V. |
| 5. PURCHASE ORDER NO. 7220-C-50A | | 10. QC FIELD INSPECTION PLAN NO. C-111-37 | 15. REPLACEMENT SERIAL NO. NA | |
| 6. CONTRACTOR/LOCATION Southern Boiler & Tank Works / Memphis, Tenn. | | 11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | 17. SOURCE Vendor | |
| 18. ROUTING INSTRUCTIONS: <input type="checkbox"/> ROUTE TO FIELD ENGINEERING <input checked="" type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR | | | | |

| 25. DISPOSITION CONCURRENCE | | | | |
|-----------------------------|--------|--------|-----------|---------|
| REWORK | REJECT | REPAIR | USE AS IS | DISPOSE |
| | | | | |
| PROJECT FIELD ENGINEER | | | | DATE |
| PROJECT ENGINEER | | | | DATE |
| PROJECT FIELD QC ENGINEER | | | | DATE |
| AUTHORIZED INSPECTOR | | | | DATE |

19. NONCONFORMING CONDITION:
 Discrepancy exists between slab numbers stamped on the upper plate of assembly S2-6-U2.
 Mill stamped slab number is Z-97034.
 Shop stamped slab number is Z-97014.
 Documentation seems to authenticate the shop stamped number.

| | | |
|--|---|--------------------------------------|
| 20. <input type="checkbox"/> FIELD DISPOSITION | <input checked="" type="checkbox"/> FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING Field Material Coordinator will contact Vendor and will follow up for positive identification in writing of correct slab number. This will be furnished to PFE and documented in Block 21. | 21. FIELD DISPOSITION RESULTS: |
| 22. ENGINEERING DISPOSITION | <i>Forish 1-24-74</i> | 23. ENGINEERING DISPOSITION RESULTS: |
| | | |
| | | |

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

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

NONCONFORMANCE REPORT

| | |
|-----------------------------|--------------------------|
| 1. PAGE 1 OF <u>1</u> | 14. NCR NO. <u>48</u> |
| 25. DISPOSITION CONCURRENCE | |
| REWORK | REJECT |
| REPAIR | USE AS IS |
| DATE | DATE |
| PROJECT FIELD ENGINEER | DATE |
| PROJECT ENGINEER | DATE |
| PROJECT FIELD QC ENGINEER | DATE |
| AUTHORIZE INSPECTOR | DATE |

| | | | | |
|---|------|--|---|------------------------|
| 2. DRAWING/PART NO. <u>SL-2-U-1 & S3-1-U-1</u> | REV. | 7. PROJECT NO. <u>7220</u> | 12. REPORTED BY <u>C.F. Clark</u> | DATE <u>1-21-74</u> |
| 3. ITEM DESCRIPTION <u>Leak chase channel</u> | | 8. ITEM LOCATION <u>Liner Plate Assembly Area</u> | 13. VALIDATED BY <u>T. D. Bryan</u> | DATE <u>1-21-74</u> |
| 4. SERIAL NUMBER <u>NA</u> | | 9. STARTUP SYSTEM NO. <u>NA</u> | 14. REPLACEMENT PART NO. <u>NA</u> | REV. |
| 5. PURCHASE ORDER NO. <u>NA</u> | | 10. QC FIELD INSPECTION PLAN NO. <u>C-111-11</u> | 16. REPLACEMENT SERIAL NO. <u>NA</u> | |
| 6. CONTRACTOR/LOCATION <u>NA</u> | | 11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | 17. SOURCE <u>Construction</u> | |
| 18. ROUTING INSTRUCTIONS: <input checked="" type="checkbox"/> ROUTE TO FIELD ENGINEERING <input type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR | | | | |

13. NONCONFORMING CONDITION: During pressure decay testing of the leak chase system attached by the field, a leak was discovered on the left side between elevations 623' and 633'. Repair to the weld was not done in accordance with specification 7220-C-111, i.e., the area was not ground out before repair weld was made.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

Use as is. The specific area of repair is not discernable at this time. The small pin hole leak was repaired by cleaning the slag from the weld and adding a second pass of filler metal over the area, as is done for any two pass weld. After the repair, the leak chase system pass the 80 lb. Pressure Decay Test.

C.F. Clark 1-23-74
T. D. Bryan 1-23-74

21. FIELD DISPOSITION RESULTS:

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULTS:

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

DRAWING _____ REV. _____ DCN _____

SPEC. _____ REV. _____ ADD. _____

26. REJECTED MATERIAL DISPOSITION RETURN TO SUPPLIER SCRAP

REMARKS

27. QC ACCEPTANCE

QC ENGINEER _____ DATE _____

AUTHORIZED INSPECTOR _____ DATE _____

NONCONFORMANCE REPORT

| | |
|-----------------------------|-------------------|
| 1. PAGE 1 OF 1 | 14. NCR NO. 49 |
| 25. DISPOSITION CONCURRENCE | |
| BY WORK | PROJECT |
| REPAIR | USE AS IS |
| PROJECT FIELD ENGINEER | DATE |
| PROJECT ENGINEER | DATE |
| PROJECT FIELD QC ENGINEER | DATE |
| AUTHORIZED INSPECTOR | DATE |

| | | | | |
|-------------------------------------|------|--|--------------------------------------|-----------------|
| 2. NUMBER/PART NO. R-12-L | REV. | 7. PROJECT NO. 7220 | 12. REPORTED BY <i>A.F. Clark</i> | DATE 1-21-74 |
| 3. ITEM DESCRIPTION Penetration | | 8. ITEM LOCATION Jig Building | 13. VALIDATED BY <i>A. H. ...</i> | DATE 1-21-74 |
| 4. SERIAL NUMBER R-12-L | | 9. STARTUP SYSTEM NO. NA | 14. REPLACEMENT PART NO. NA | REV. |
| 5. PURCHASE ORDER NO. 7220-C-50A | | 10. QC FIELD INSPECTION PLAN NO. C-111-16 | 16. REPLACEMENT SERIAL NO. NA | |
| 6. CONTRACTOR/LOCATION NA | | 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 weld gap between the penetration R-12-L and the liner plate assembly S1-3-U-2 is 5/8" which is in excess of the 1/2" gap permitted by specification 7220-C-111.

20. FIELD DISPOSITION FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

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

A.F. Clark 1-23-74
A. H. ... 1-24-74

22. ENGINEERING DISPOSITION

23. ENGINEERING DISPOSITION RESULTS:

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

NCR-C-49

1/23/74

TWX BEBC 166

disposition
satisfactory to ac

Hold tag removed
to permit work to
progress pending
official disposition
on orig per TWX.

A. L. Boulton

RECEIVED

JAN 24 1974
FEDERAL BUREAU OF INVESTIGATION
U.S. DEPARTMENT OF JUSTICE