

DOCUMENTATION TRANSMITTAL

DMS

| PRINCIPAL STAFF |   |                |
|-----------------|---|----------------|
| RA              | ✓ | SPRP           |
| D/RA            |   | DE             |
| A/RA            |   | DRMSF          |
| RC              |   | DRMA           |
| PAO             |   | SCS            |
| SGA             |   | ML             |
| ENF             |   | File <i>no</i> |

Knight 3

To: Stone & Webster - CIO  
PO Box 1963  
Midland, MI 48640

Transmittal No: CIO-0060  
Date: 5-30-84

Attention: Dave Wells

The documentation listed below \_\_\_ is provided herewith, x was previously provided on 5-23-84 ; as requested by Dave Wells .

Documentation Description: NONCONFORMANCE REPORT: C-00028

CIO \_\_\_ has x has not been placed on routine transmittal for the described documentation.

*Jeanne Kinze*  
Signature

CC RJCook, NRC Site (w/a, unless voluminous)  
JJHarrison, NRC Region III (w/a, unless voluminous)  
DDJohnson, SMO (w/o)  
JGKeppler, NRC Region III (w/a, unless voluminous)  
BHPeck, SMO (w/o)  
NIREichel, SMO (w/o)  
RAWells, MPQAD (w/o)  
CMThompson - File 24.2 (w/a, unless voluminous)

MI0384-0001A-QL06

8406120174 840530  
PDR ADOCK 05000329  
A PDR

JUN 7 1984  
LE01  
|||

FEDERAL PROJECT  
QUALITY ASSURANCE  
DEPARTMENT

NONCONFORMANCE REPORT

|   |                    |
|---|--------------------|
| 17 DATE ISSUED<br><u>8/31/85</u>  | 18 REV<br><u>0</u> |
| 19 PAGE <u>1</u> OF <u>2</u> <sup>4th rev 2/9/84</sup> <u>2/8 2/11/85</u> |                    |

# ORIGINAL

2/10

1 ITEM LOCATION  
Reactor Building, Unit #2, Elev 613'

|  |  |                                 |
|--|--|---------------------------------|
| 2 ITEM DRAWING/PART NO.<br><u>ESK-M-200B-16-4-H6 Rev.3</u> | 3 ITEM PART NAME<br><u>Small Bore Pipe Strap</u> | 4 ITEM SERIAL NO.<br><u>N/A</u> |
|--|--|---------------------------------|

5 ITEM DESCRIPTION  
Small Bore Pipe Strap (PGS-113)

|  |  |   |
|--|--|---|
| 6 ITEM STARTUP SYSTEM NO.<br><u>2B6D</u> | 7 REFERENCE DOCUMENT<br><u>PQC: 7220/P2.30 Rev.3</u> | 8 ASME A.N.I. REQUIRED<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
|--|--|---|

|  |                         |                     |  |
|--|-------------------------|---------------------|--|
| 9 INSPECTION RECORD NO.<br><u>P2.30-ESK-M-200B-16-4-H6</u> | LOG NO.<br><u>24607</u> | REV NO.<br><u>3</u> | 10 RESPONSIBLE ORGANIZATION<br><u>Construction</u> |
|--|-------------------------|---------------------|--|

11 NONCONFORMANCE DISCOVERED DURING:

|  |                                      |   |                                      |   |  |
|--|--------------------------------------|---|--------------------------------------|---|--|
| <input checked="" type="checkbox"/> POST INSPECT | <input type="checkbox"/> TURNOVER    | <input type="checkbox"/> DESIGN         | <input type="checkbox"/> RECEIVING   | <input checked="" type="checkbox"/> CONST | <input type="checkbox"/> RELEASE FOR INSPECT |
| <input type="checkbox"/> POST TURNOVER           | <input type="checkbox"/> PRE-OP TEST | <input type="checkbox"/> FINAL TURNOVER | <input type="checkbox"/> OVERINSPECT |   |  |

12 REQUIREMENT  
1) PQC: 7220/P2.30 Rev.3 para. 3.1.14 (G-27, VT-ASME, NF-5360) states "welds shall be free of coarse ripples, irregular surface, high crown and deep ridges or valleys between beads and shall be essentially uniform in size throughout their length."

13 NONCONFORMANCE  
1) Contrary to the above the welds connecting item #1 to the existing steel has an irregular surface appearance on both the north and south welds.

## INPUT TO DCC

DATE: 5-15-84 QAK

|   |                        |
|---|------------------------|
| 14 NCR ORIGINATED BY (PERSON)<br><u>Russell T. Tate</u>       | <u>8/14/85</u><br>DATE |
| 15 NCR ORIGINATED BY (DISCIPLINE)<br><u>MPQAD (Mechanics)</u> |                        |

|   |  |
|---|--|
| 20 NUMBER OF HOLD TAGS (IF APPLIED)<br><u>One</u> | 21 LOCATION OF HOLD TAGS<br><u>200B-16-4-H6</u><br><u>on support steel</u> |
|---|--|

|  |                                      |                                       |  |
|--|--------------------------------------|---------------------------------------|--|
| 22 POTENTIAL 50.55(a)<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | 24 ACTION ITEM NO.<br><u>SO-2429</u> | 25 ITEM PRIORITY CODE NO.<br><u>5</u> | 28 NCR REVIEWED BY:<br><u>John C. Kuzner</u> |
|--|--------------------------------------|---------------------------------------|--|

|   |                            |                             |                        |
|---|----------------------------|-----------------------------|------------------------|
| 23 REPORTED TO MPQA MANAGER<br>DATE _____ | 25 DISCIPLINE:<br><u>M</u> | 27 TREND CODE<br><u>C-4</u> | DATE:<br><u>9/1/03</u> |
|---|----------------------------|-----------------------------|------------------------|

29 CAUSE WORKMANSHIP

2074  
Blk 2/9/84

30 PROCESS CORRECTIVE ACTION

YES  NO QAR NO. N/A

31 RECOMMENDED DISPOSITION

REWORK  SCRAP/REJECT  REPAIR  USE AS IS

32 CONDITIONAL RELEASE

YES  NO

31A ADDITIONAL INFORMATION USE AS IS - WELD SURFACE IRREGULARITIES ARE NOT EXCESSIVE. MINIMUM WELD SIZE CAN BE VERIFIED AND NO OTHER DEFECTS ARE VISUALLY PRESENT. R.G. *Blk* Tag 1/20/84 (SEE PAGE 4 FOR CONT.)

33 DISTRIBUTION FOR ACTION PROJECT ENGINEERING *Blk*

34 DISPOSITION CONCURRENCE

*Subram* 2/21/84 *Blk* 3-5-84 *Blk* 3-5-84  
PROJECT FIELD ENGINEER DATE MPQAD CONCURRENCE DATE P/QCE (ASME) DATE

*Cinfol* 2/10/84 \_\_\_\_\_  
LEAD DESIGN ORG DATE CP Co SMO (for turned over systems) DATE  
P/QAE (ASME) DATE  
A.N.I. (ASME) DATE

35 DISPOSITION ACTION TAKEN

1 HOLD TAG REMOVED ~~FAA~~ 3-6-84  
1 CONDITIONAL RELEASE TAG REMOVED

RECEIVED  
FEB 06 1984  
Midland Project  
*UCR/68*

~~FAA~~ 3-6-84

36 METHOD OF DISPOSITION ACTION VERIFICATION

RESULT OF DISPOSITION ACTION VERIFICATION  
 ACCEPTABLE  UNACCEPTABLE

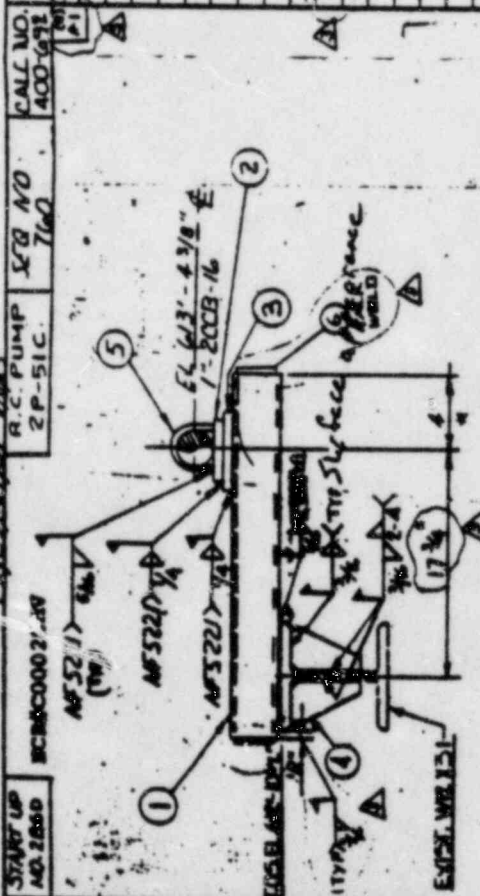
IF UNACCEPTABLE, REFERENCE SUPERCEDING NCR NUMBER \_\_\_\_\_

37 NCR CLOSED BY

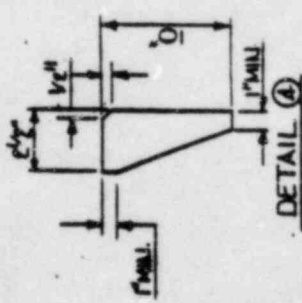
*Blk* 3-6-84  
MPQAD DATE

\_\_\_\_\_  
A.N.I. (ASME) DATE

3 OF 4 SHEETS  
 Pass sheets in 2/9/64

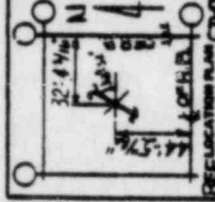


ELEV. L.G.S. NORTH-EAST



NOTES:  
 1. FAB IN ACCORDANCE WITH SPEC. 7220-M-306  
 2. 7220 TO CUT IN 2% AT SUPPORT POINT PER SPEC 7220-M-191  
 3. NEW CRITICAL DIMENSION

SHIP DRAWING NO. 2880  
 (From the 2880)  
 REVISED AS NOTED  
 ISSUED FOR CONSTRUCTION



| ITEM NO. | DESCRIPTION                               | QTY | UNIT | REMARKS |
|----------|---|-----|------|---------|
| 1        | T.S. 4 X 4 X 1/4 X 2-2 LB. ASTM-A3068 B   | 1   | PC   |         |
| 2        | PLATE 5/8 X 2 X 3/2 SA 30 OR SA-515       | 1   | PC   |         |
| 3        | GR 65 OR 70                               | 1   | PC   |         |
| 4        | PLATE 3/4 X 4 R X 4 Y2 SA-36              | 1   | PC   |         |
| 5        | OR SA-515 GR 65 OR 70                     | 1   | PC   |         |
| 6        | STIFFENER PLATE 1/4 X 2 1/2 X 10 1/2 A-36 | 2   | PC   |         |
| 7        | 1\"/>                                     |     |      |         |

RECEIVED

1 MAR 24 1964

QUALITY CONTROL  
 BECHTEL JOB 7030  
 ABOVE DIMENSIONS FOR SHOP  
 FABRICATION PURPOSES ONLY

| CONDITIONS     | F <sub>1</sub> | F <sub>2</sub> | F <sub>3</sub> | F <sub>4</sub> | F <sub>5</sub> | F <sub>6</sub> | F <sub>7</sub> | F <sub>8</sub> | F <sub>9</sub> | F <sub>10</sub> | F <sub>11</sub> | F <sub>12</sub> | F <sub>13</sub> | F <sub>14</sub> | F <sub>15</sub> | F <sub>16</sub> | F <sub>17</sub> | F <sub>18</sub> | F <sub>19</sub> | F <sub>20</sub> |  |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| DEFORMATION    |                |                |                |                |                |                |                |                |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |  |
| SCORING & LIFT |                |                |                |                |                |                |                |                |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |  |
| RESIDUENCY     |                |                |                |                |                |                |                |                |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |  |
| FAULTED        |                |                |                |                |                |                |                |                |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |  |

RECEIVED  
 7220

| REV. | DATE | REVISIONS                          |
|------|------|------------------------------------|
| 1    |      | ISSUED FOR CONSTRUCTION            |
| 2    |      | REVISED AS NOTED                   |
| 3    |      | INCORP. PER 11 & REV'D ADMIN NOTES |

|                                    |          |                  |             |                  |
|------------------------------------|----------|------------------|-------------|------------------|
| START UP NO. 2880                  | SCMCO002 | R.C. PUMP 2P-51C | JOB NO. 700 | CALL NO. 400-671 |
| MATERIALS & OPERATIONS             |          |                  |             |                  |
| CUSTOMER COLLIERS POWER CO         |          |                  |             |                  |
| ORDER OR CONT. NO. 7220            |          |                  |             |                  |
| JOB NAME MCL AND PLANT UNITS 1 & 2 |          |                  |             |                  |
| MARK NO.                           |          |                  |             |                  |
| SHEET NO. FSK-M-LCEB-W-4-H-2       |          |                  |             |                  |
| SHEET 1 OF 1 REV. 3                |          |                  |             |                  |

ORIGINAL

MIDLAND PROJECT  
QUALITY ASSURANCE  
DEPARTMENT

NONCONFORMANCE  
**ORIGINAL**  
CONTINUATION SHEET

NCR NO. C-00028HV

DATE ISSUED 8-31-83

REV 0

PAGE 4 OF 4

(BLOCK 31A CONTINUED)

PROJECT ENGINEERING DISPOSITION

ITEM #1 PROJECT ENGINEERING CONCURS WITH THE FIELD  
ENGINEERING RECOMMENDED DISPOSITION TO 'USE AS IS'

WELD SURFACE IRREGULARITIES DO NOT INFRINGE UPON THE MINIMUM  
WELD THROAT THICKNESS REQUIREMENT & REQUIRED NON DESTRUCTIVE  
EXAMINATION OF WELD. NO DRAWING REVISION REQUIRED. NO  
IMPACT ON QUAL TEST. CALCULATION # 400-69200 HAS BEEN  
ANNOTATED IN ACCORDANCE WITH EDPI 4.37.0.

R. Latel *[Signature]*  
2/9/84. 2/9/84



NONCONFORMANCE  
REPORT EVALUATION  
**ORIGINAL**

DOCUMENT NUMBER: CPC015 - 0200 - C-00028 HV

MIDLAND NCR  
RECONCILIATION PROJECT

NCR NO: C-00028 HV

REV DATE: 8/31/83

THIS PAGE SUMMARIZES THE INDIVIDUAL EVALUATIONS WITHIN THE NCR AS FOLLOWS:

| DEFICIENCY          | INVALID                  | INDETERMINATE            | REJECT                   | REWORK                              | USE AS IS                | REPAIR                   |
|---------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|
| <u>C-00028 HV-1</u> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| _____               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| _____               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| _____               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| _____               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| _____               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| _____               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

POTENTIAL SAFETY IMPACT

YES     NO     INDETERMINATE

COMMENTS: SEE C-00028 HV-1  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

PREPARED BY:

*[Signature]*  
9/14/83  
 DATE

CHECKED BY:

*[Signature]*  
9-19-83  
 DATE

APPROVED BY:

*[Signature]*  
9-21-83  
 DATE



DEFICIENCY EVALUATION

SU ORIGINAL

DOCUMENT NUMBER: CPC015 - 0200 - C-00028 HV

MIDLAND NCR RECONCILIATION PROJECT

NCR NO: C-00028 HV-1

REV DATE: 8/31/83

EVALUATION:

- INVALID
- INDETERMINATE
- REJECT
- REWORK
- USE AS IS
- REPAIR

JUSTIFICATION REWORK THE NORTH & SOUTH WELDS OF ITEM #1  
TO THE EXISTING STEEL TO ELIMINATE IRREGULAR SURFACES.  
THE IRREGULAR SURFACES POSSESS DEEP CRACKS - FUSION  
CANNOT BE VERIFIED. ∴ REWORK THE WELDS.

THE FOLLOWING CHECKED ITEMS ARE PART OF THIS FILE:

| ITEM   | NO. OF PAGES |
|--|--------------|
| <input type="checkbox"/> CALCULATION PACKAGE           | _____        |
| <input type="checkbox"/> DESIGN DRAWING                | _____        |
| <input type="checkbox"/> INFORMATION REQUEST NO: _____ | _____        |
| <input type="checkbox"/> INFORMATION REQUEST NO: _____ | _____        |
| <input type="checkbox"/> FIELD VERIFIED DATA           | _____        |
| <input type="checkbox"/> OTHER _____                   | _____        |

POTENTIAL SAFETY IMPACT

- YES
- NO
- INDETERMINATE

COMMENTS: UNTIL THE WELDS ARE REWORKED, THE STATUS  
OF THE SUPPORT IS UNKNOWN.

PREPARED BY:

John L. [Signature]  
9/14/83  
 DATE

CHECKED BY:

J. Kudell  
9-19-83  
 DATE

APPROVED BY:

George S. Sanders  
9-21-83  
 DATE



# FIELD ENGINEER'S REPORT FORM


CONTRACT NO. **ORIGINAL**

JOB 7220 MIDLAND UNITS

PAGE 1 OF 1

| ITEM NO. | DESCRIPTION  | ACTION REQUIRED/TAKEN |
|----------|--|-----------------------|
|          | C-00028-HV<br>FSK-M-2CCB-16-4-H6   |                       |
|          | HANGER WELDS (P117)<br>AFTER BRUSHING THE RUST OFF<br>THE SURFACE APPEARANCE IS OK<br>RECOMMENDATION - USE AS IS | ACCEPTABLE            |
|          |  |                       |
|          |  |                       |
|          |  |                       |
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REMARKS: 10-25-83

  
 SIGNATURE

|           |  |
|-----------|--|
| ROUTE     |  |
| <u>OK</u> |  |
| FILE      |  |




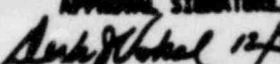





**COMMONWEALTH  
POWER  
COMPANY**

**CONDITIONAL RELEASE**  
**ORIGINAL**

**MIDLAND PROJECT  
QUALITY ASSURANCE DEPARTMENT**

1. PAGE 1 OF 14

|  |  |  |
|--|--|--|
| 2. PROJECT:<br>MIDLAND 7220  | 1. ICR<br>See Pg. 2 thru 14  | 11. CONDITIONAL RELEASE NO:<br>C-00028-HV-01   |
| 4. SPECIFIC ITEM(S) TO BE CONDITIONALLY RELEASED<br>NAME: <u>Piping Supports</u><br>PART NO(S): <u>See Pg. 2 thru 14</u><br>SERIAL NO(S): <u>N/A</u><br><br>QUANTITY: <u>See Pg. 2 thru 14</u><br>LOCATION: <u>Various</u> |  | 12. FILE NO: C-00028-HV<br><br>13. DISTRIBUTION:<br>D.B. Miller<br>R.E. McCue<br>J.A. Pucci<br>M.A. Dietrich<br>C. Paulsen                         |
| 5. AUTHORIZED WORK OR USE: Removal of paint and rust from welds to complete inspections.   |  |  |
| 6. LIMITATIONS ON CONDITIONAL RELEASE: Paint and rust removal only.  |  |  |
| 7. JUSTIFICATION (GIVE COST SCHEDULE & SAFETY IMPLICATIONS IF THIS CR IS NOT AUTHORIZED)<br>To facilitate HRP schedule for completion of HRP, due to paint and rust covering welds preventing inspections.                 |  |  |
| 8. DATE OF EXPECTED CR CLOSURE:<br>03-1-84   | 9. REQUESTOR'S SIGNATURE/DATE:<br> 12-30-83         | 9A. PROJECT FIELD ENGINEER (BECHTEL ONLY)<br>N/A   |
| 9B. POSE (BECHTEL ASME ONLY)<br>N/A  | 9C. ASME SIGNATURE/DATE (ASME)<br>N/A  | 10. PROJECT MANAGEMENT APPROVAL SIGNATURE/DATE:<br> 12/30/83  |
| 14. NPSAS APPROVAL SIGNATURE/DATE:<br> 1-9-84   | 15. CR TAGS APPLIED BY- SIGNATURE/DATE:<br> 1-30-84 | 16. CR TAGS REMOVE/CR CLOSED SIGNATURE/DATE:<br> M-92 5-10-84 |

# Hangers with NCR's that need Cleaning

| MOD | Hanger        | NCR #                                  |         |
|-----|---------------|--|---------|
| 101 | 604-55-101    | C-00022                                | HV      |
|     | 657-37-21     | C-00629                                | HV      |
|     | 657-42-11     | C-00429                                | HV      |
| 103 | 603-9-12      | C-00501                                | HV      |
|     | 110           | C-00505                                | HV      |
|     | 603-16-16     | C-00562                                | HV      |
|     | 612-6-43      | C-00058                                | HV      |
|     | 1CCB-55-2-H13 | C-00484                                | HV      |
|     | 1HCB-43-1-H5  | C-00470                                | HV      |
|     | H8            | C-00469                                | HV      |
|     | H9            | C-00507                                | HV      |
|     | 1HCB-55-2-H2  | C-00566                                | HV      |
|     | 1HCB-277-1-H4 | <del>C-00628</del> <i>file</i> 1-17-89 |         |
|     | 102           | 2FCC-4-1-H1                            | C-00032 |
| AH2 |               | C-00047                                | HV      |
| 160 | 1HBC-243-1-H3 | C-123                                  | HV      |
| 102 | 2CCB-54-2-H6  | C-00700                                | HV      |
| 130 | 604-546       | C-493                                  |         |
|     | 15            | C-672                                  | TO      |
|     | 6-2           | C-634                                  | TO      |
|     | 8-8           | C-517                                  |         |
| 110 | 611-5-28      | C-494                                  |         |
| 140 | 604-13-55     | C-417                                  | HV      |
|     | 14-51         | C-358                                  | HV      |
|     | 15-14         | C-568                                  | HV      |
| 160 | 657-3-14      | C-478                                  | HV      |
|     | 2-23          | C-304                                  | HV      |
| 330 | 604-2-36      | C-728                                  | HV      |

| MOD | HANGER    | NCR #                            |
|-----|-----------|----------------------------------|
| 140 | 603-13-23 | C-00393 HV                       |
|     | 24        | C-00392 HV                       |
|     | 603-14-28 | C-00472 HV                       |
|     | 29        | C-00473 HV                       |
|     | 603-15-4  | C-00486 HV                       |
|     | 6         | C-00483 HV                       |
|     | 13        | C-00514 HV                       |
|     | 17        | C-00528 HV                       |
|     | 20        | C-00379 HV                       |
|     | 42        | C-00378 HV                       |
|     | 60        | C-00401 HV                       |
|     | 603-17-22 | C-00592 HV                       |
|     | 604-5-18  | C-00504 HV                       |
|     | 604-13-51 | C-00358 HV                       |
|     | 53        | C-00415 HV                       |
|     | 54        | C-00416 HV                       |
|     | 55        | <del>C-00418 HV</del> C-00417 HV |
|     | 604-14-1  | C-00543 HV                       |
|     | 2         | C-00542 HV                       |
|     | 604-15-4  | C-00471 HV                       |
|     | 10        | C-00639 HV                       |
|     | 14        | <del>C-00556 HV</del> C-00558 HV |
|     | 15        | C-00569 HV                       |
|     | 19        | C-00567 HV                       |
|     | 23        | C-00587 HV                       |
|     | 33        | C-00592 HV                       |
|     | 51        | C-00530 HV                       |
|     | 53        | C-00633 HV-TD                    |
|     | 54        | C-00564 HV                       |
|     | 55        | C-00565 HV                       |



| MOD           | Hanger        | NCR #              |               |    |
|---------------|---------------|--------------------|---------------|----|
| 140           | 604-16-6      | C-00418            | HV            |    |
|               | 604-17-17     | C-00515            | HV            |    |
|               | 23            | C-00554            | HV            |    |
|               | <del>24</del> | <del>C-05705</del> | <del>HV</del> |    |
|               | 613-5-47      | C-00644            | HV            |    |
|               | 48            | C-00666            | HV            |    |
|               | 657-42-6      | C-00669            | HV            |    |
|               | OHCC-63-2-H6  | C-00659            | HV            |    |
|               | 2CCB-45-1-H11 | C-00760            | HV            |    |
|               | 150           | 603-14-110         | C-CC390       | HV |
|               |               | 603-16-12          | C-CC306       | HV |
|               |               | 604-12-E           | C-CC51E       | HV |
| 604-13-7      |               | C-CC430            | HV            |    |
| 8             |               | C-CC457            | HV            |    |
| 657-40-10     |               | C-00585            | HV            |    |
| 1HCB-66-1-AH1 |               | C-00064            | HV            |    |
| 1HCB-85-3-H1  |               | <del>C-00063</del> | <del>HV</del> |    |
| 1HCB-91-1-H2  |               | C-00004            | HV            |    |
| 1HCB-94-1-H11 |               | C-00610            | HV            |    |
| 1HCB-114-1-H2 |               | C-00045            | HV            |    |
| 1HCB-115-1-H5 |               | C-00468            | HV            |    |

Handwritten note: ~~1-11-84~~

Handwritten note: ~~1-17-84~~

| MOD            | Hanger         | NCR#          |       |    |
|----------------|----------------|---------------|-------|----|
| 150            | 1 HCB-119-1-H6 | C-00067       | HV    |    |
|                | 1 HCB-357-1-H3 | C-00005       | H6    |    |
|                | H5             | C-00062       | HV    |    |
|                | 1 HCC-68-1-H3  | C-00004       | HV    |    |
|                | 2 HCB-67-2-H6  | C-00008       | HV    |    |
|                | 2 HCB-79-2-H1  | C-00027       | Hv    |    |
|                | 3              | C-00303       | HV    |    |
|                | 2 HCB-115-1-H7 | C-00006       | Hv    |    |
|                | H14            | C-00360       | HV    |    |
|                | 2 HCB-357-1-H3 | C-00029       | HV    |    |
|                | H5             | C-00273       | HV    |    |
|                | H6             | C-00018       | HV    |    |
|                | H11            | C-00061       | HV    |    |
|                | H14            | C-00017       | HV    |    |
|                | H15            | C-00015       | HV    |    |
|                | 2 HCC-30-2-H2  | C-00016       | HV    |    |
|                | H3             | C-00063       | HV    |    |
|                | 2 HCC-31-2-H2  | C-00007       | HV    |    |
|                | 340            | 2 CCB-16-4-H1 | C-753 | HV |
|                |                | 22-1-H3       | C-769 | HV |
| 5              |                | C-751         | HV    |    |
| 68-1-H1        |                | C-740         | HV    |    |
| 69-1-H4        |                | C-762         | HV    |    |
| 101-1-H4       |                | C-809         | HV    |    |
| H6             |                | C-764         | HV    |    |
| 2 CCB-21-1-H1  |                | C-798         | HU    |    |
| 2 HCC-461-2-H2 |                | C-723         | HV    |    |
| 468-1-1+15     |                | C-781         | HV    |    |
| 472-2-H9       | C-714          | HV            |       |    |

Woodbury  
JUL 1-17-89

| MCD<br>160 | Hanger    | NCR #   |
|------------|-----------|---|
|            | 605-1-2   | C-00073                                       |
|            | 3         | C-00026                                       |
|            | 101       | <del>C-00042</del> HV 1-17-84                 |
|            | 619-E-7   | C-00056                                       |
|            | 15        | <del>C-00039</del> HV 1-17-84 C-00039 HV      |
|            | 27        | C-00204 HV 1-17-84                            |
|            | 619-9-17  | C-00071 HV 1-17-84                            |
|            | 20        | C-00424 HV 1-17-84                            |
|            | 23        | C-00513                                       |
|            | 657-1-6   | C-00077 HV 1-17-84                            |
|            | 657-2-3   | C-00124 HV 1-17-84                            |
|            | 23        | <del>C-00050</del> HV 1-17-84                 |
|            | 657-3-1   | C-00721 HV 1-17-84                            |
|            | 8         | C-00404 HV 1-17-84                            |
|            | 9         | C-00261 HV 1-17-84                            |
|            | 10        | <del>C-00043</del> HV 1-17-84                 |
|            | 11        | C-00597                                       |
|            | 13        | <del>C-00495</del> HV 1-17-84                 |
|            | 14        | <del>C-00495</del> HV 1-17-84                 |
|            | 15        | C-00733                                       |
|            | 657-4-14  | C-00718 HV                                    |
|            | 657-39-28 | C-00703 HV                                    |
|            | 657-40-24 | C-00278 HV                                    |
|            | 657-36-12 | C-00729 HV                                    |
|            | 23        | C-00730 HV                                    |
|            | 657-42-14 | C-00368 HV                                    |
|            | 21        | C-00361 HV                                    |
|            | 657-43-12 | C-00526 HV<br>ALL NCRS APPROVED BY HV 1-17-84 |

| MOD | Hanger           | NCR #   |
|-----|------------------|---|
| 160 | 1 HBC-222-1-H 12 | C-00069 HV  |
|     | H 13             | C-00070 HV  |
|     | 1 HBC-222-2-H 11 | C-00212 HV  |
|     | 1 HBC-243-1-H 2  | C-00065 HV  |
|     | 1 HBC-261-1-H 2  | C-00412 HV  |
|     | <del>H 3</del>   | <del>C-00371</del> <sup>R<sup>2</sup> 12-30-83</sup>        |
|     | H 4              | <del>C-00272</del> <sup>R<sup>2</sup> 2-30-83</sup> C-00272 |
|     | H 5              | C-00362 HV  |
|     | 1 HBC-554-1-H 8  | C-00121 HV  |
|     | 1 HCB-48-2-H 4   | C-00341 HV  |
|     | H 5              | C-00632 HV  |
|     | H 6              | C-00271 HV  |
|     | 1 HCC-66-1-H 3   | C-00347 HV  |
|     | 2 HBC-222-2-H 11 | C-00605 HV  |
|     | 2 HBC-233-1-H 1  | C-00338 HV  |
|     | 2 HBC-241-1-H 1  | C-00627   |
|     | H 2              | C-00346 HV  |
|     | H 4              | C-00503 HV  |
|     | 2 HBC-243-1-H 1  | <del>C-00467</del> <sup>R<sup>2</sup> 1-12-89</sup>         |
|     | H 2              | C-00407 HV  |
|     | 2 HBC-243-2-H 3  | C-00459 HV <sup>R<sup>2</sup> 1-12-89</sup>                 |
|     | 2 HBC-253-1-AH 4 | C-00297 HV  |
|     | 2 HBC-260-1-H 1  | C-00302 HV  |
|     | H 2              | C-00305 HV  |
|     |                  | all HV's APPROVED BY JWC 1-17-89                            |

| MOO          | Hanger         | NCR                                      |
|--------------|----------------|--|
| 160          | 2 HBC-261-1-H3 | C-00259 HV <del>1-17-84</del>            |
|              | 2 HBC-554-1-H7 | C-00514 HV                               |
|              | HB             | <del>C-00370</del> C-00370 HV<br>1-17-84 |
|              | 2 HBC-555-2-H1 | C-00405 HV <del>1-17-84</del>            |
| 320          | 617-4-44       | C-00609 HV                               |
|              | 2CCA-53-1-H3   | C-00591 HV                               |
|              | 2CCA-56-1-H5   | C-00799 HV                               |
|              | 2CCC-15-1-H1   | C-00581 HV                               |
|              | 5              | C-00711 HV                               |
|              | 2CCC-17-2-H1   | C-00699 HV                               |
|              | 4              | C-00698 HV                               |
|              | 2CCC-17-3-H1   | C-00844 HV                               |
|              | 2              | C-00832 HV                               |
|              | 3              | C-00806 HV                               |
|              | 2CCC-18-2-H3   | C-00676 HV                               |
|              | 2CCC-535-1-H1  | <del>C-00592</del> HV <del>1-17-84</del> |
|              | 5              | <del>C-00597</del> HV <del>1-17-84</del> |
|              | 330            | 6C4-2-36                                 |
| 2CCA-38-1-H5 |                | C-00611 HV                               |
| 2CCA-56-1-H4 |                | C-00503 HV                               |
| 2CCC-15-2-H4 |                | C-00607 HV                               |
| 6            |                | C-00599 HV                               |
| 7            |                | C-00595 HV                               |
| 8            | C-00596 HV     |  |



| MOO           | Hanger       | NCR #         |                             |
|---------------|--------------|---------------|-----------------------------|
| 330           | 2CCC-16-3-H1 | C-00769 HV    |                             |
|               | 2CCC-16-4-H2 | C-00758 HV    |                             |
|               | 2EBB-10-1-H4 | C-00767 HV    |                             |
|               | 5            | C-00770 HV    |                             |
|               | 10           | C-00783 HV    |                             |
|               | 2EBB-10-3-H7 | C-00813 HV    |                             |
|               | 340          | 531-3-110     | C-00068 HV                  |
| 604-2-5       |              | C-00797 HV    |                             |
| 608-1-29      |              | C-00849 HV    |                             |
| 611-2-16      |              | C-00745 HV    |                             |
| 17            |              | C-00688 HV    |                             |
| 619-3-29      |              | C-00834 HV    |                             |
| 2CCA-51-1-H1  |              | C-00276 HV    |                             |
| 2CCA-59-6-H10 |              | C-00633       |                             |
| 2CCA-62-1-H1  |              | C-00374 HV    |                             |
| 2CCA-66-1-H7  |              | C-00019 HV    |                             |
| 2CCA-95-1-H2  |              | C-00803 HV    |                             |
| 2CCB-15-3-H2  |              | C-00850 HV    |                             |
| 2CCB-15-4-H3  |              | C-00020 HV    |                             |
| 340           |              | 2HCC-461-1-H8 | C-574 <del>3889</del> 10-84 |
| ↓             |              | 7             | 3889 <del>10-84</del>       |

| M:CD          | HANGER                | NCR #                      |
|---------------|-----------------------|----------------------------|
| 340           | 2CCB-16-3-H3          | C-00044 HV                 |
|               | 4                     | C-00060 HV                 |
|               | 6                     | C-00197 HV                 |
|               | 7                     | C-00046 HV                 |
|               | 2CCB-16-4-H1          | C-00753                    |
|               | 2                     | <del>C-00799</del> 1-17-84 |
|               | 4                     | C-00031 HV                 |
|               | 6                     | <del>C-00038</del> HV      |
|               | 7                     | C-00057 HV                 |
|               | 2CCB-20-1-H5          | C-00576 HV                 |
|               | 8                     | C-00584 HV                 |
|               | 2CCB-21-1-H1          | C-00798 HV                 |
|               | 3                     | C-00693 HV                 |
|               | 7                     | C-00631 HV                 |
|               | 8                     | C-00653 HV                 |
|               | 9                     | C-00756 HV                 |
|               | 12                    | C-00630 HV                 |
|               | 2CCB-22-1-H3          | C-00768 HV                 |
|               | 4                     | C-00066 HV                 |
|               | 5                     | C-00751 HV                 |
|               | 2CCB-61-5-H3          | C-00691 HV                 |
|               | 2CCB-62-6-H8          | C-00059 HV                 |
| 10            | C-00078 HV            |                            |
| 2CCB-68-1-H1  | C-00740 HV            |                            |
| 2CCB-69-1-H4  | C-00762 HV            |                            |
| 2CCB-101-1-H2 | <del>C-00275</del> HV |                            |
| 4             | C-00809 HV            |                            |
| 5             | C-00275 HV            |                            |
| 6             | C-00764 HV            |                            |

| MOD         | Hanger                 | NCR #                         |
|-------------|------------------------|-------------------------------|
| 340         | 2CCB-102-1-H1          | C-00211 HV                    |
|             | <del>2ECB-3-4-H4</del> | <del>C-00782 HV</del> 1-17-89 |
|             | 2ECB-10-4-H1           | C-00744 HV                    |
|             | 2ECB-25-1-H11          | C-00796 HV                    |
|             | 2ECB-3-1-H1            | C-00462 HV                    |
|             | 2                      | C-00367 HV                    |
|             | 3                      | C-00433 HV                    |
|             | 4                      | C-00342 HV                    |
|             | 5                      | C-00784 HV                    |
|             | 7                      | C-00322 HV                    |
|             | 2ECB-3-2-H1            | C-00320 HV                    |
|             | 2                      | C-00321 HV                    |
|             | 3                      | C-00277 HV                    |
|             | 2ECB-4-2-H3            | C-00325 HV                    |
|             | 2ECB-4-3-H1            | C-00400 H1                    |
|             | 2                      | C-00323 HV                    |
|             | 3                      | <del>C-00342 HV</del> 1-17-89 |
|             | 6                      | C-00350 H1                    |
|             | 7                      | C-00349 HV                    |
|             | 8                      | C-00724 HV                    |
|             | 9                      | C-00399 HV                    |
|             | 2ECB-4-4-H1            | C-00420 HV                    |
|             | 2                      | C-00704 HV                    |
|             | 3                      | C-00421 HV                    |
|             | 4                      | C-00785 HV                    |
| 5           | C-00435 HV             |                               |
| 2ECB-4-5-H2 | C-00529 HV             |                               |
| 3           | C-00601 HV             |                               |

| MOD           | Hanger        | NCR #      |
|---------------|---------------|------------|
| 340           | 2 ECB-5-1-H 1 | C-00365 HV |
|               | 2             | C-00364 HV |
|               | 3             | C-00363 HV |
|               | 4             | C-00366 HV |
|               | 5             | C-00395 HV |
|               | 6             | C-00394 HV |
|               | 7             | C-00398 HV |
| 2 ECB-6-1-H 1 | C-00422 HV    |            |
| 2             | C-00419 HV    |            |
| 4             | C-00423 HV    |            |
| 5             | C-00436 HV    |            |
| 2 ECB-7-2-H 1 | C-00475 HV    |            |
| 2             | C-00489 HV    |            |
| 3             | C-00508 HV    |            |
| 4             | C-00533 HV    |            |
| 5             | C-00509 HV    |            |
| 2 ECB-8-1-H 1 | C-00506 HV    |            |
| 2             | C-00490 HV    |            |
| 2 ECB-8-2-H 3 | C-00476 HV    |            |
| 4             | C-00477 HV    |            |
| 2 ECB-8-3-H 2 | C-00746 HV    |            |
| 3             | C-00746 HV    |            |
| 8             | C-00500 HV    |            |
| 2 ECB-8-4-H 5 | C-00558 HV    |            |
| 6             | C-00532 HV    |            |
| 7             | C-00534 HV    |            |
| 8             | C-00570 HV    |            |
| 9             | C-00491 HV    |            |
| 10            | C-00524 HV    |            |
| 12            | C-00525 HV    |            |
| 13            | C-00492 HV    |            |

| MCD            | Hanger         | NCA #                            |
|----------------|----------------|----------------------------------|
| 340            | 2 ECB-8-5-H1   | C-CC690 HV                       |
|                | 2              | C-CC544 HV                       |
|                | 3              | C-CC527 HV                       |
|                | 4              | <del>C-CC527 HV</del> C-00727 HV |
|                | 5              | C-CC563 HV <sup>1-1784</sup>     |
|                | 2 ECB-9-1-H1   | C-CC531 HV                       |
|                | 2              | C-CC795 HV                       |
|                | 2 HCB-3C-2-H5  | C-CC0765                         |
|                | 2 HCB-35E-1-H2 | C-CC608 HV                       |
|                | 2 HCB-35E-2-H1 | C-CC0755 HV                      |
|                | 2              | C-CC0786 HV                      |
|                | 3              | C-CC0743 HV                      |
|                | 4              | C-CC0684 HV                      |
|                | 2 HCB-13-1-H1  | C-CC0598 HV                      |
|                | 2 HCB-55-2-H1  | C-CC0831 HV                      |
|                | 2              | C-CC0722 HV                      |
|                | 2 HCB-57-2-H3  | C-CC0757                         |
|                | 2 HCB-59-1-H2  | C-CC550 H1                       |
|                | 2 HCC-454-1-H7 | C-CC555 HV                       |
|                | 9              | C-CC557 HV                       |
| 10             | C-CC546 HV     |                                  |
| 2 HCC-456-1-H4 | C-CC556 HV     |                                  |
| 2 HCC-456-3-H3 | C-CC578 HV     |                                  |

| MOD | Hanger                   | NCR #                 |            |  |
|-----|--------------------------|-----------------------|------------|--|
| 340 | <del>2HCC-461-1-H5</del> | C-00580 HV            |            |  |
|     | 6                        | C-00677 HV            |            |  |
|     | <del>13</del>            | C-00574 HV            | S0029      |  |
|     | <del>17</del>            | <del>C-03889 HV</del> |            |  |
|     | 2HCC-461-2-H2            | C-00723 HV            |            |  |
|     | 2HCC-463-2-H4            | C-00571 HV            |            |  |
|     | 2HCC-46E-1-H13           | C-00651 HV            |            |  |
|     | 14                       | C-00687 HV            |            |  |
|     | 15                       | C-00781 HV            |            |  |
|     | 2HCC-468-2-H10           | C-00606 HV            |            |  |
|     | 2HCC-472-2-H8            | C-00582 HV            |            |  |
|     | 9                        | C-00714 HV            |            |  |
|     | 540                      | 603-2-6               | C-00541 HV |  |
|     |                          | 608-2-25              | C-00750 HV |  |
|     |                          |                       |            |  |