

U- 601272  
L30-88(09-14)-LP  
1A.120

ILLINOIS POWER COMPANY



CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

DPH-0829-88  
September 14, 1988

Docket No. 50-461

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555

Subject: Clinton Power Station  
IE Bulletin 88-05

Dear Sir:

This letter is in response to IE Bulletin 88-05, "Nonconforming Materials Supplied by Piping Supplies, Inc. at Folson, New Jersey and West Jersey Manufacturing Company at Williamstown, New Jersey". The information requested by Supplement 2 to this Bulletin is attached.

I hereby affirm that the information in this letter is correct to the best of my knowledge.

A handwritten signature in cursive script, appearing to read 'D. P. Hall'.

D. P. Hall  
Vice President

DPH/kar

Attachments

cc: NRC Clinton Licensing Project Manager  
NRC Resident Inspector  
Regional Administrator, Region III, USNRC  
Illinois Department of Nuclear Safety

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Attachment 1

Reporting Requirement

Holders of full power operating licenses are required to report the results of their records review, testing, and analysis performed as of the date of this supplement in accordance with the 120 day reporting requirement specified in paragraph 1 of Bulletin 88-05.

Response

In response to Bulletin 88-05 Illinois Power Company (IPC) conducted a detailed review of purchase order files to identify pipe flanges and fittings received at Clinton Power Station (CPS) which were manufactured by West Jersey Manufacturing Company (WJM) or Piping Supplies, Inc. (PSI). The only materials identified were flanges manufactured by WJM. A total of 446 WJM flanges were identified as having been received at CPS.

All installation travelers for American Society of Mechanical Engineers (ASME) safety related, non-ASME safety related, and fire protection piping were reviewed for CPS. Non-safety installation travelers were not reviewed. 130 of the WJM flanges were identified from the traveler review to be located in the plant. Hardness testing was performed on 70 of these flanges; 60 were inaccessible for testing during power operation. A review of warehouse records and a physical search of the warehouse and lay-down areas located 133 flanges in stock. Hardness tests were performed on 78 of these flanges.

The remaining 183 flanges of the 446 WJM flanges are not in ASME or non-ASME safety related or fire protection piping at CPS based on the installation traveler and warehouse record review and the physical search of the storage areas. These flanges are either installed on non-safety systems or have been sold. The list of the located items and the test results are in Attachment 2.

Two groups of Justifications for Continued Operation (JCO) were prepared. One group covered flanges which were inaccessible and the other covered flanges which were tested and found to have tensile strength that fell outside of the range of 137 to 187 (brinell hardness) for SA-105 material. In general, the JCOs included the results of the stress analysis performed, and a summary of operational considerations for each flange. The operational considerations generally address whether the flange could be isolated if it were to fail, and whether the failure would result in a radiation release, or

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result in damage to the reactor pressure boundary. A total of 50 inaccessible flanges and 32 installed flanges had a JCO prepared for them. The conclusion of each JCO was that the systems with the WJM flanges were not adversely affected and continued operation was justified.

NRC BULLETIN 88-05  
Listing of Located Items

| Fitting/<br>Flange<br>Id. (1) | RIR (1) | EIN (1) | Heat<br>No. (1) | Description (1)                                    | Test<br>Id. (1) | Brinell<br>Hardness |
|-------------------------------|---------|---------|-----------------|--|-----------------|---------------------|
| S-13004                       | WHSE    | STOCK   | VK              | 1-1/2" 150# FF SW FLANGE BORED S/80 ASME SA-105    | NO TEST         | 0                   |
| S-13004                       | WHSE    | STOCK   | VK              | 1-1/2" 150# FF SW FLANGE BORED S/80 ASME SA-105    | NO TEST         | 0                   |
| S-13004                       | WHSE    | STOCK   | VK              | 1-1/2" 150# FF SW FLANGE BORED S/80 ASME SA-105    | NO TEST         | 0                   |
| S-15446                       | WHSE    | STOCK   | GDAA            | 2" 1500# LGE TONGUE FLANGE BORED S/160 ASME SA-105 | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-16959                       | WHSE    | STOCK   | A94             | 7-1/2" OD 3"X1" 150# RF SW FLANGE ASME SA-105      | NO TEST         | 0                   |
| S-17350                       | WHSE    | STOCK   | S21053          | 8" 150# RF WN S/40 FLANGE ASME SA-105              | NO TEST         | 0                   |
| S-22594                       | WHSE    | STOCK   | COX             | 3" 150 # WN RF STD BORE FLANGE                     | NO TEST         | J                   |
| S-22594                       | WHSE    | STOCK   | COX             | 3" 150 # WN RF STD BORE FLANGE                     | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1" 600# RF FLANGE S/80 SA-105                      | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1-1/4" 600# RF FLANGE S/80 SA-105                  | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1-1/4" 600# RF FLANGE S/80 SA-105                  | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1-1/4" 600# RF FLANGE S/80 SA-105                  | NO TEST         | 0                   |
| S-23099                       | WHSE    | STOCK   | 3718            | 1-1/4" 600# RF FLANGE S/80 SA-105                  | NO TEST         | 0                   |

NRC BULLETIN 88-05  
Listing of Located Items

| Fitting/<br>Flange<br>Id. | RIR     | EIN        | Heat<br>No. | Description                                 | Test<br>Id. | Brinell<br>Hardness |
|---------------------------|---------|------------|-------------|---|-------------|---------------------|
|                           | S-23099 | WHSE STOCK | 3718        | 1-1/4" 600# RF FLANGE S/80 SA-105           | NO TEST     | 0                   |
|                           | S-23099 | WHSE STOCK | 3718        | 1-1/4" 600# RF FLANGE S/80 SA-105           | NO TEST     | 0                   |
|                           | S-23099 | WHSE STOCK | 3718        | 1-1/4" 600# RF FLANGE S/80 SA-105           | NO TEST     | 0                   |
|                           | S-23099 | WHSE STOCK | 3718        | 1-1/4" 600# RF FLANGE S/80 SA-105           | NO TEST     | 0                   |
|                           | S-23099 | WHSE STOCK | 3718        | 1-1/4" 600# RF FLANGE S/80 SA-105           | NO TEST     | 0                   |
|                           | S-23099 | WHSE STOCK | 3718        | 1-1/4" 600# RF FLANGE S/80 SA-105           | NO TEST     | 0                   |
|                           | S-24305 | WHSE STOCK | A62919      | 4" 300# RF WN S/40 BORED FLANGE ASME SA-105 | NO TEST     | 0                   |
|                           | S-24305 | WHSE STOCK | A62919      | 4" 300# RF WN S/40 BORED FLANGE ASME SA-105 | NO TEST     | 0                   |
|                           | S-24305 | WHSE STOCK | A62919      | 4" 300# RF WN S/40 BORED FLANGE ASME SA-105 | NO TEST     | 0                   |
|                           | S-24305 | WHSE STOCK | A62919      | 4" 300# RF WN S/40 BORED FLANGE ASME SA-105 | NO TEST     | 0                   |
| 0-FP-125-1E               | S-16799 |            | 143         | 3" 150# RF FLANGE                           | C-52209-BG  | 138                 |
| 0-FP-125-1F               | S-16799 |            | 143         | 3" 150# RF FLANGE                           | C-52209-BH  | 131                 |
| 0-FP-125-1H               | S-16799 |            | 143         | 3" 150# RF FLANGE SA-105 STD                | C-52209-BF  | 140                 |
| 0-FP-125-1I               | S-16799 |            | 143         | 3" 150# RF FLANGE                           | C-52209-BE  | 140                 |
| 0-FP-125-2E               | S-16799 |            | 143         | 3" 150# RF FLANGE                           | C-52209-BD  | 129                 |
| 0-FP-125-2F               | S-16799 |            | 143         | 3" 150# RF FLANGE                           | C-52209-BB  | 134                 |
| 0-FP-125-2H               | S-16799 |            | 143         | 3" 150# RF FLANGE                           | C-52209-BC  | 136                 |
| 0-FP-125-2I               | S-16799 |            | 143         | 3" 150# RF FLANGE                           | C-52209-BA  | 133                 |
| 0-FP-125-3E               | S-16799 |            | 143         | 3" 150# RF FLANGE                           | C-52209-BL  | 135                 |
| 0-FP-125-3F               | S-16799 |            | 143         | 3" 150# RF FLANGE                           | C-52209-BM  | 140                 |
| 0-FP-125-3H               | S-16799 |            | 143         | 3" 150# RF FLANGE                           | C-52209-BN  | 151                 |
| 0-FP-125-3I               | S-16799 |            | 143         | 3" 150# RF FLANGE                           | C-52209-BO  | 137                 |
| 0-FP-88-11                | S-22594 | FP261      | COX         | 3" 150# WN RF FLANGE SA-105                 | C-52209-BI  | 162                 |
| 0-FP-88-13                | S-22594 | 0FP261     | COX         | 3" 150# WN RF FLANGE SA-105                 | C-52209-BK  | 189                 |
| 0-FP-88-14                | S-22594 | 0FP261     | COX         | 3" 150# WN RF FLANGE SA-105                 | C-52209-BJ  | 156                 |
| 0-VC-751-142B             | S-16368 | 0VC18AA    | 4706        | 3" 150# RF WN FLANGE SA-105                 | C-52209-L   | 152                 |
| 0-VC-751-21               | S-16368 | 0VC18AA    | 4706        | 3" 150# RF WN FLANGE SA-105                 | C-52209-K   | 153                 |
| 0-VC-753-13               | S-16368 | 0VC18AA    | 4706        | 3" 150# WN RF FLANGE SA-105                 | C-52209-M   | 139                 |
| 0-V6-23-1H                | S-13548 | 0AE-PR009  | 03543       | 6" RF SLIP-ON FLANGE                        | C-52209-BQ  | 150                 |
| 0-V6-23-1L                | S-13548 | 0AE-PR006  | 03543       | 6" RF SLIP-ON FLANGE                        | C-52209-BP  | 149                 |
| 1-00-2-1A                 | S-16800 | 1D607MC    | 143         | 3" 150# RF WN FLANGE S/40 SA-105            | C-52209-AH  | 127                 |
| 1-MS-763-1A               | S-15835 | 1B21-F0288 | 6579        | 1" 1500# RF SW FLANGE SA-105                | NO ACCESS   | 0                   |
| 1-MS-763-1B               | S-15835 | 1B21-F0288 | 6579        | 1" 1500# RF SW FLANGE SA-105                | NO ACCESS   | 0                   |
| 1-MS-770-4B               | S-16801 | 1B21-F379R | 14341       | 2" 600# RF SW FLANGE SA-105                 | NO ACCESS   | 0                   |
| 1-MS-773-2C               | S-16801 |            | BND         | 2" 600# RF SW FLANGE S/80                   | NO ACCESS   | 0                   |
| 1-MS-829-1B               | S-21101 | 1B21-F022C | COX         | 3/4" 1500# RF SW FLANGE SA-105              | NO ACCESS   | 0                   |
| 1-MS-829-1C               | S-21101 | 1B21-F022C | COX         | 3/4" 1500# RF SW FLANGE SA-105              | NO ACCESS   | 0                   |
| 1-MS-829-5B               | S-21101 | 1B21-F022A | COX         | 3/4" 1500# RF SW FLANGE SA-105              | NO ACCESS   | 0                   |
| 1-MS-829-5C               | S-21101 | 1B21-F022A | COX         | 3/4" 1500# RF SW FLANGE SA-105 S/160        | NO ACCESS   | 0                   |
| 1-MS-830-1B               | S-21101 |            | COX         | 3/4" 1500# RF SW FLANGE SA-105              | NO ACCESS   | 0                   |
| 1-MS-830-1C               | S-21101 |            | COX         | 3/4" 1500# RF SW FLANGE SA-105              | NO ACCESS   | 0                   |
| 1-MS-830-5B               | S-21101 |            | COX         | 3/4" 1500# RF SW FLANGE SA-105              | NO ACCESS   | 0                   |
| 1-MS-830-5C               | S-21101 |            | COX         | 3/4" 1500# RF SW FLANGE SA-105              | NO ACCESS   | 0                   |
| 1-NB-1-1C                 | S-21344 | N/A        | 6X1137      | 4" 900# LG WN FLANGE S/120 SA-105           | NO ACCESS   | 0                   |
| 1-RF-751-10               | S-21101 | 1G33-F404B | COX         | 3/4" 1500# RF SW FLANGE SA-105              | NO ACCESS   | 0                   |

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Listing of Located Items

| Fitting/<br>Flange<br>Id. | RIR     | SIN        | Heat<br>No. | Description                       | Test<br>Id. | Brinell<br>Hardness |
|---------------------------|---------|------------|-------------|-----------------------------------|-------------|---------------------|
| 1-RF-751-11               | S-21101 | 1633-F404C | COX         | 3/4" 1500# RF SW FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-RF-751-12               | S-21101 | 1633-F404C | COX         | 3/4" 1500# RF SW FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-RF-751-7                | S-21101 | 1633-F404A | COX         | 3/4" 1500# RF SW FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-RF-751-8                | S-21101 | 1633-F404A | COX         | 3/4" 1500# RF SW FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-RF-751-9                | S-21101 | 1633-F404B | COX         | 3/4" 1500# RF SW FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-RH-769-1M               | S-18672 | 1E12-F103B | GDFE        | 2" 600# RF SW FLANGE SA-105       | C-52209-AA  | 136                 |
| 1-RH-769-2A(1)            | S-18672 | 1E12-F104B | GDFE        | 2" 600# RF SW FLANGE SA-105       | C-52209-X   | 147                 |
| 1-RH-769-2A(2)            | S-18672 | 1E12-F103B | GDFE        | 2" 600# UN FLANGE SA-105          | C-52209-Y   | 143                 |
| 1-RH-769-3M               | S-18672 | 1E12-F103A | GDFE        | 2" 600# RF SW FLANGE SA-105       | C-52209-AD  | 141                 |
| 1-RH-769-4A(1)            | S-18672 | 1E12-F103A | GDFE        | 2" 600# RF SW FLANGE SA-105       | C-52209-AE  | 141                 |
| 1-RH-769-4A(2)            | S-18672 | 1E12-F104A | GDFE        | 2" 600# RF SW FLANGE SA-105       | C-52209-AB  | 140                 |
| 1-RH-774-5                | S-16801 | 1E12-F104A | 14341       | 2" 600# RF SW FLANGE SA-105       | C-52209-AC  | 154                 |
| 1-RH-775-31               | S-16801 | 1E12-F104B | 14341       | 2" 600# RF SW FLANGE SA-105       | C-52209-Z   | 153                 |
| 1-RI-3-1C                 | S-21769 | 1E51-C002  | 5103        | 12" 300# RF UN FLANGE SA-105      | C-52209-R   | 141                 |
| 1-RI-3-1D                 | S-21769 | 1E51-C002  | 5103        | 12" 300# RF UN FLANGE SA-105      | C-52209-S   | 137                 |
| 1-RI-756-32A              | S-18672 | 1E51-F079  | GDFE        | 2" 600# RF SW FLANGE SA-105       | C-52209-AF  | 143                 |
| 1-RI-756-72B              | S-18672 | 1E51-F079  | GDFE        | 2" 600# RF SW FLANGE SA-105       | C-52209-AG  | 147                 |
| 1-RI-778-3                | S-22365 | 1E51-F095  | CND         | 1" 1500# RF SW FLANGE SA-105      | NO ACCESS   | 0                   |
| 1-RI-778-42               | S-22365 | 1E51-F095  | CND         | 1" 1500# RF SW FLANGE SA-105      | NO ACCESS   | 0                   |
| 1-RI-778-6A               | S-22365 | 1E51-F095  | CND         | 1" 1500# RF SW FLANGE SA-105      | NO ACCESS   | 0                   |
| 1-RI-778-8                | S-22365 | 1E51-F095  | CND         | 1" 1500# RF SW FLANGE SA-105      | NO ACCESS   | 0                   |
| 1-RT-768-1                | S-15446 | 1633-C001A | GDAA        | 2" 1500# LRG TONGUE FLANGE SA-105 | NO ACCESS   | 0                   |
| 1-RT-768-2A2B             | S-15446 | 1633-C001B | GDAA        | 2" 1500# SW LRG TONGUE SA-105     | NO ACCESS   | 0                   |
| 1-RT-768-3                | S-15446 | 1633-C001C | GDAA        | 2" 1500# LRG TONGUE FLANGE SA-105 | NO ACCESS   | 0                   |
| 1-RT-779-10               | S-21101 | 1633-D002A | COX         | 3/4" 1500# RF SW FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-RT-779-112B             | S-21101 | 1633-D002A | COX         | 3/4" 1500# RF SW FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-RT-779-112C             | S-21101 | 1633-D002C | COX         | 3/4" 1500# RF SW FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-RT-779-112D             | S-21101 | 1633-D002C | COX         | 3/4" 1500# RF SW FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-RT-779-112E             | S-21101 | 1633-D002B | COX         | 3/4" 1500# RF SW FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-RT-779-112F             | S-21101 | 1633-D002C | COX         | 3/4" 1500# RF SW FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-SA-40-d                 | S-21314 | 1MC67H     | 4148        | 6" 150# BLIND FLANGE SA-105       | NO ACCESS   | 0                   |
| 1-SA-40-C(1)              | S-21314 | 1MC67H     | 4148        | 6" 150# BLIND FLANGE SA-105       | C-52209-AX  | 147                 |
| 1-SA-40-C(2)              | S-21314 | 1MC67H     | 4148        | 6" 150# BLIND FLANGE SA-105       | C-52209-AJ  | 150                 |
| 1-SA-752-1                | S-21314 | 1MD106     | CPC         | 6" 150# RF BLIND FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-SA-752-4                | S-21314 | 1MD100     | CPC         | 6" 150# RF BLIND FLANGE SA-105    | NO ACCESS   | 0                   |
| 1-SX-38-1D                | S-16799 | 0VG01SA    | 143         | 3" 150# RF FLANGE SA-105          | C-52209-AT  | 144                 |
| 1-SX-38-1E                | S-16799 | 0VG01SA    | 143         | 3" 150# RF FLANGE SA-105          | C-52209-A   | 128                 |
| 1-SX-38-1G                | S-16799 | 0VG01SA    | 143         | 3" 150# RF FLANGE SA-105          | C-52209-AU  | 137                 |
| 1-SX-38-1H                | S-16799 | 0VG01SA    | 143         | 3" 150# RF FLANGE SA-105          | C-52209-AV  | 139                 |
| 1-SX-39-2D                | S-16799 | 0SX009     | 143         | 3" 150# RF FLANGE SA-105          | C-52209-D   | 126                 |
| 1-SX-39-2E                | S-16799 | 0VG01SB    | 143         | 3" 150# RF FLANGE SA-105          | C-52209-B   | 138                 |
| 1-SX-39-2G                | S-16799 | 0VG01SB    | 143         | 3" 150# RF FLANGE SA-105          | C-52209-C   | 131                 |
| 1-SX-40-1B                | S-16799 | 0VC075B    | 143         | 3" 150# RF FLANGE SA-105          | C-52209-Q   | 135                 |
| 1-SX-40-1D                | S-16799 | 0VC075B    | 143         | 3" 150# RF FLANGE SA-105          | C-52209-P   | 129                 |
| 1-SX-40-91                | S-16799 | 0VC095B    | 143         | 3" 150# RF FLANGE SA-105          | C-52209-AY  | 132                 |

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Listing of Located Items

| Fitting/<br>Flange<br>Id. | RIR     | EIN       | Heat<br>No. | Description                             | Test<br>Id. | Brinell<br>Hardness |
|---------------------------|---------|-----------|-------------|---|-------------|---------------------|
| 1-SX-40-9J                | S-16799 | 0UC09SB   | 143         | 3" 150# RF FLANGE SA-105                | J2209-N     | 132                 |
| 1-SX-40-9M                | S-16799 | 0UC09SB   | 143         | 3" 150# RF FLANGE SA-105                | C-52209-0   | 129                 |
| 1-SX-40-9N                | S-16799 | 0UC09SB   | 143         | 3" 150# RF FLANGE SA-105                | C-52209-AZ  | 125                 |
| 1-SX-41-1E                | S-16799 | 0UC075A   | 143         | 3" 150# RF WN FLANGE SA-105             | C-52209-I   | 128                 |
| 1-SX-41-1D                | S-16799 | 0UC075A   | 143         | 3" 150# RF WN FLANGE SA-105             | J2209-J     | 129                 |
| 1-SX-41-9E                | S-16799 | 0UC09SA   | 143         | 3" 150# RF WN FLANGE                    | L-52209-H   | 130                 |
| 1-SX-41-9I                | S-16799 | 0UC09SA   | 143         | 3" 150# RF WN FLANGE SA-105             | J2209-E     | 144                 |
| 1-SX-41-9X                | S-16799 | 0UC09SA   | 143         | 3" 150# RF WN FLANGE                    | C-52209-G   | 130                 |
| 1-SX-41-9L                | S-16799 | 0UC09SA   | 143         | 3" 150# RF WN FLANGE SA-105             | J2209-F     | 150                 |
| 1-SX-755-1A(1)            | S-16368 | 0SA01VB   | 4706        | 3" 150# RF WN FLANGE SA-105             | C-52209-AR  | 137                 |
| 1-SX-755-1A(2)            | S-16368 | 0SA01VB   | 4706        | 3" 150# RF WN FLANGE SA-105             | C-52209-AQ  | 129                 |
| 1-SX-755-2A(1)            | S-16368 | 0SS01VB   | 4706        | 3" 150# RF WN FLANGE SA-105             | C-52209-AP  | 129                 |
| 1-SX-755-2A(2)            | S-16368 | 0SA01VB   | 4706        | 3" 150# RF WN FLANGE SA-105             | C-52209-AO  | 124                 |
| 1-SX-755-72A              | S-16368 | 0SA01VA   | 4706        | 3" 150# RF WN FLANGE SA-105             | C-52209-AL  | 136                 |
| 1-SX-755-72B              | S-16368 | 0SA01VA   | 4706        | 3" 150# RF WN FLANGE SA-105             | C-52209-AN  | 128                 |
| 1-SX-755-92A              | S-16368 | 0SA01VA   | 4706        | 3" 150# RF WN FLANGE SA-105             | C-52209-AM  | 124                 |
| 1-SX-755-92B              | S-16368 | 0SA01VA   | 4706        | 3" 150# RF WN FLANGE SA-105             | C-52209-AK  | 136                 |
| 1-SX-764-1C               | S-16368 | 1VH075C   | 4706        | 3" 150# RF WN FLANGE SA-105             | C-52209-AS  | 129                 |
| 1-SX-794-7                | S-16369 | 1SX094B   | T2095       | 3" 150# RF SW FLANGE SA-105             | C-52209-AJ  | 150                 |
| 1-SX-795-6                | S-16369 | 1VR12S    | T2095       | 3" 150# RF SW FLANGE SA-105             | C-52209-AI  | 141                 |
| 1-SX-798-1                | S-16368 |           | 4706        | 3" 150# RF WN FLANGE SA-105             | NO ACCESS   | 0                   |
| 1-SX-820-1                | S-16799 | 1VY05S    | 143         | 3" 150# RF WN FLANGE SA-105             | C-52209-T   | 131                 |
| 1-SX-820-3                | S-16799 | 1VY05S    | 143         | 3" 150# RF WN FLANGE SA-105             | C-52209-U   | 134                 |
| 1-SX-837-1                | S-16799 | 1VY10A    | 143         | 3" 150# WN RF FLANGE SA-105             | C-52209-W   | 137                 |
| 1-SX-838-1                | S-16799 | 1VY10A    | 143         | 3" 150# WN RF FLANGE SA-105             | C-52209-V   | 135                 |
| 1-TD-525-4                | S-23099 | 1T001K    | J718        | 1" 600# RF SW FLANGE SA-105             | NO ACCESS   | 0                   |
| 1-TD-526-4                | S-23099 | 1T001K    | J718        | 1" 600# RF SW FLANGE SA-105             | NO ACCESS   | 0                   |
| 1CC03MA(1)                | S-14344 | 1CC02MA   | B3390       | 2" 150# LJ FLANGE SA-350 LF2            | NO ACCESS   | 0                   |
| 1CC03MA(2)                | S-14344 | 1CC02MA   | B3436       | 1-1/2" 150# LJ FLANGE SA-350 LF2        | NO ACCESS   | 0                   |
| 1CC03MB(1)                | S-14344 | 1CC02MB   | B3390       | 2" 150# LJ FLANGE SA-350 LF2            | NO ACCESS   | 0                   |
| 1CC03MB(2)                | S-14344 | 1CC02MB   | B3436       | 1-1/2" 150# LJ FLANGE SA-350 LF2        | NO ACCESS   | 0                   |
| 1CC03MC(1)                | S-14344 | 1CC02MC   | B3390       | 2" 150# LJ FLANGE SA-350 LF2            | NO ACCESS   | 0                   |
| 1CC03MC(2)                | S-14344 | 1CC02MC   | B3436       | 1-1/2" 150# LJ FLANGE SA-350 LF2        | NO ACCESS   | 0                   |
| 1CC03MD(1)                | S-14344 | 1CC02MD   | B3390       | 2" 150# LJ FLANGE SA-350 LF2            | NO ACCESS   | 0                   |
| 1CC03MD(2)                | S-14344 | 1CC02MD   | B3436       | 1-1/2" 150# LJ FLANGE SA-350 LF2        | NO ACCESS   | 0                   |
| 1DG20MA(1)                | S-11321 | 1DG20MA   | LB-3079     | 36" 150# RF SO FLANGE SA-105            | NO ACCESS   | 0                   |
| 1DG20MA(2)                | S-11321 | 1DG20MA   | LB-3079     | 36" 150# RF SO FLANGE SA-105            | NO ACCESS   | 0                   |
| 1DG20MB(1)                | S-11321 | 1DG20MB   | LB-3079     | 36" 150# RF SO FLANGE SA-105            | NO ACCESS   | 0                   |
| 1DG20MB(2)                | S-11321 | 1DG20MB   | LB-3079     | 36" 150# RF SO FLANGE SA-105            | NO ACCESS   | 0                   |
| 1DG20MC(1)                | S-11321 | 1DG20MC   | LB-3079     | 36" 150# RF SO FLANGE SA-105            | NO ACCESS   | 0                   |
| 1DG20MC(2)                | S-11321 | 1DG20MC   | LB-3079     | 36" 150# RF SO FLANGE SA-105            | NO ACCESS   | 0                   |
| 1E12-N554(1)              | S-12647 | 1E12-N554 | A29         | 2" 300# ORIFICE FLANGE ASME SA-105 S/80 | REMOVED     | 0                   |
| 1E12-N554(2)              | S-12647 | 1E12-N554 | A29         | 2" 300# ORIFICE FLANGE ASME SA-105 S/80 | REMOVED     | 0                   |
| 1E21-N552(1)              | S-12647 | 1E21-N552 | A29         | 2" 300# ORIFICE FLANGE ASME SA-105 S/80 | REMOVED     | 0                   |
| 1E21-N552(2)              | S-12647 | 1E21-N552 | A29         | 2" 300# ORIFICE FLANGE ASME SA-105 S/80 | REMOVED     | 0                   |

NRC BULLETIN 88-05  
Listing of Located Items

| Fitting/<br>Flange<br>Id. | RIR     | EIN        | Heat<br>No. | Description                             | Test<br>Id. | Brinell<br>Hardness |
|---------------------------|---------|------------|-------------|---|-------------|---------------------|
| 1E22-N564(1)              | S-12647 | 1E22-N564  | A29         | 2" 300# ORIFICE FLANGE ASME SA-105 S/80 | REMOVED     | 0                   |
| 1E22-N564(2)              | S-12647 | 1E22-N564  | A29         | 2" 300# ORIFICE FLANGE ASME SA-105 S/80 | REMOVED     | 0                   |
| 1E51-N595(1)              | S-12647 | 1E51-N595  | A29         | 2" 300# ORIFICE FLANGE ASME SA-105 S/80 | REMOVED     | 0                   |
| 1E51-N595(2)              | S-12647 | 1E51-N595  | A29         | 2" 300# ORIFICE FLANGE ASME SA-105 S/80 | REMOVED     | 0                   |
| 1VP02SE(1)                | N/A     | 1VP02SE    | CFW         | 3" 150# LAP JOINT FLANGE                | NO ACCESS   | 0                   |
| 1VP02SE(2)                | N/A     | 1VP02SE    | CFW         | 3" 150# LAP JOINT FLANGE                | NO ACCESS   | 0                   |
| 1VP02SF(1)                | N/A     | 1VP02SF    | CFW         | 3" 150# LAP JOINT FLANGE                | NO ACCESS   | 0                   |
| 1VP02SF(2)                | N/A     | 1VP02SF    | CFW         | 3" 150# LAP JOINT FLANGE                | NO ACCESS   | 0                   |
| 1VP02SG(1)                | N/A     | 1VP02SG    | CFW         | 3" 150# LAP JOINT FLANGE                | NO ACCESS   | 0                   |
| 1VP02SG(2)                | N/A     | 1VP02SG    | CFW         | 3" 150# LAP JOINT FLANGE                | NO ACCESS   | 0                   |
| 1VP02SH(1)                | N/A     | 1VP02SH    | CFW         | 3" 150# LAP JOINT FLANGE                | NO ACCESS   | 0                   |
| 1VP02SH(2)                | N/A     | 1VP02SH    | CFW         | 3" 150# LAP JOINT FLANGE                | NO ACCESS   | 0                   |
| 2230                      | S-13004 | WHSE STOCK | UK          | 1-1/2" 150# FLANGE SA-105 S80           | 2230        | 161                 |
| 2231                      | S-18672 | WHSE STOCK | GDFE        | 2" 600# SA-105 XH                       | 2231        | 146                 |
| 2232                      | S-13004 | WHSE STOCK | VK          | 1-1/2" 150# S/80                        | 2232        | 155                 |
| 2233                      | S-13004 | WHSE STOCK | VK          | 1-1/2" 150# SA-105 S/80                 | 2233        | 159                 |
| 2234                      | S-13004 | WHSE STOCK | VK          | 1-1/2" 150# SA-105 S/80                 | 2234        | 164                 |
| 2235                      | S-13004 | WHSE STOCK | VK          | 1-1/2" 150# SA-105 S/80                 | 2235        | 160                 |
| 2236                      | S-13004 | WHSE STOCK | VK          | 1-1/2" 150# SA-105 S/80                 | 2236        | 157                 |
| 2237                      | S-13004 | WHSE STOCK | VK          | 1-1/2" 150# SA-105 S/80                 | 2237        | 160                 |
| 2238                      | S-18672 | WHSE STOCK | GDFE        | 2" 600# SA-105                          | 2238        | 136                 |
| 2239                      | S-21314 | WHSE STOCK | CPC         | 6" 150# SA-105                          | 2239        | 150                 |
| 2240                      | S-13004 | WHSE STOCK | VK          | 1-1/2" 150# SA-105 S/80                 | 2240        | 156                 |
| 2241                      | S-13004 | WHSE STOCK | VK          | 1-1/2" 150# SA-105 S/80                 | 2241        | 168                 |
| 2242                      | S-21314 | WHSE STOCK | CPC         | 6" 150# SA-105                          | 2242        | 161                 |
| 2243                      | S-13004 | WHSE STOCK | VK          | 1-1/2" 150# SA-105 S/80                 | 2243        | 149                 |
| 2244                      | S-23099 | WHSE STOCK | COH         | 1-1/2" 600# SA-105                      | 2244        | 148                 |
| 2245                      | S-13004 | WHSE STOCK | VK          | 1-1/2" 150# SA-105 S/80                 | 2245        | 160                 |
| 2246                      | S-13004 | WHSE STOCK | VK          | 1-1/2" 150# SA-105 S/80                 | 2246        | 153                 |
| 2247                      | S-23099 | WHSE STOCK | COH         | 1-1/2" 600# SA-105                      | 2247        | 150                 |
| 2248                      | S-23099 | WHSE STOCK | COH         | 1-1/2" 600# SA-105                      | 2248        | 147                 |
| 2249                      | S-23099 | WHSE STOCK | COH         | 1-1/2" 600# SA-105                      | 2249        | 182                 |
| 2250                      | S-23099 | WHSE STOCK | COH         | 1-1/2" 600# SA-105 CL2 XH               | 2250        | 141                 |
| 2251                      | S-23099 | WHSE STOCK | COH         | 1-1/2" 600# SA-105 CL2 XH               | 2251        | 136                 |
| 2252                      | S-23099 | WHSE STOCK | COH         | 1-1/2" 600# SA-105 CL2 XH               | 2252        | 138                 |
| 2253                      | S-18512 | WHSE STOCK | B13         | 2"X3" 150# CL2 S/40                     | 2253        | 160                 |
| 2254                      | S-18512 | WHSE STOCK | B13         | 2"X3" 150# SA-105 CL2 S41               | 2254        | 154                 |
| 2255                      | S-18253 | WHSE STOCK | B13         | 2"X3" 150# SA-105 STD                   | 2255        | 67                  |
| 2256                      | S-18253 | WHSE STOCK | B13         | 2"X3" 150# SA-105 STD                   | 2256        | 162                 |
| 2257                      | S-18512 | WHSE STOCK | B13         | 2"X3" 150# SA-105 CL2 S40               | 2257        | 160                 |
| 2258                      | S-18512 | WHSE STOCK | B13         | 2"X3" 150# SA-105 CL2 S40               | 2258        | 155                 |
| 2259                      | S-18512 | WHSE STOCK | B13         | 2"X3" 150# SA-105 CL2 S40               | 2259        | 165                 |
| 2260                      | S-18512 | WHSE STOCK | B13         | 2"X3" 150# SA-105 CL2 S40               | 2260        | 165                 |
| 2261                      | S-18512 | WHSE STOCK | B13         | 2"X3" 150# SA-105 CL2 S40               | 2261        | 157                 |
| 2262                      | S-18512 | WHSE STOCK | B13         | 2"X3" 150# SA-105 CL2 S40               | 2262        | 167                 |



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| Fitting/<br>Flange<br>Id. | RIR     | EIN        | Heat<br>No. | Description                           | Test<br>Id. | Brinell<br>Hardness |
|---------------------------|---------|------------|-------------|---------------------------------------|-------------|---------------------|
| 2263                      | S-18512 | WHSE STOCK | B13         | 2*X3* 150# SA-105 CL2 S40             | 2263        | 158                 |
| 2264                      | S-18512 | WHSE STOCK | B13         | 2*X3* 150# SA-105 CL2 S40             | 2264        | 154                 |
| 2265                      | S-18512 | WHSE STOCK | B13         | 2*X3* 150# SA-105 CL2 S40             | 2265        | 160                 |
| 2266                      | S-18512 | WHSE STOCK | B13         | 2*X3* 150# SA-105 CL2 S40             | 2266        | 162                 |
| 2267                      | S-16253 | WHSE STOCK | B13         | 2*X3* 150# SA-105 STD                 | 2267        | 168                 |
| 2268                      | S-23099 | WHSE STOCK | COH         | 1-1/2* 600# SA-105 CL2 XH             | 2268        | 146                 |
| 2269                      | S-23099 | WHSE STOCK | COH         | 1-1/2* 600# SA-105 CL2 XH             | 2269        | 141                 |
| 2270                      | S-23099 | WHSE STOCK | COH         | 1-1/2* 600# SA-105 CL2 XH             | 2270        | 143                 |
| 2271                      | S-23099 | WHSE STOCK | COH         | 1-1/2* 600# SA-105 XH                 | 2271        | 132                 |
| 2272                      | S-23099 | WHSE STOCK | COH         | 1-1/2* 600# SA-105 XH                 | 2272        | 143                 |
| 2273                      | S-18253 | WHSE STOCK | B13         | 2*X2* 600# SA-105 STD                 | 2273        | 160                 |
| 2274                      | S-19084 | WHSE STOCK | BST         | 1* 600# SA-105 CL2 S/160              | 2274        | 153                 |
| 2275                      | S-19084 | WHSE STOCK | BST         | 1* 600# SA-105 CL2                    | 2275        | 152                 |
| 2276                      | S-19084 | WHSE STOCK | BST         | 1* 600# SA-105 CL2 S/160              | 2276        | 161                 |
| 2277                      | S-13004 | WHSE STOCK | VK          | 1-1/2* 150# SA-105 S/80               | 2277        | 157                 |
| 2278                      | S-19084 | WHSE STOCK | BST         | 1* 600# SA-105 CL2 S/180              | 2278        | 176                 |
| 2279                      | S-23099 | WHSE STOCK | COH         | 1-1/2* 600# SA-105 CL2 XH             | 2279        | 148                 |
| 2280                      | S-13004 | WHSE STOCK | VK          | 1-1/2* 150# SA-105 S/80               | 2280        | 152                 |
| 2281                      | S-23099 | WHSE STOCK | COH         | 1-1/2* 600# SA-105 CL2 XH             | 2281        | 137                 |
| 2282                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2282        | 147                 |
| 2283                      | S-23099 | WHSE STOCK | COH         | 1-1/2* 600# SA-105 CL2 XH             | 2283        | 150                 |
| 2284                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2284        | 120                 |
| 2285                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2285        | 161                 |
| 2286                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2286        | 170                 |
| 2287                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2287        | 145                 |
| 2288                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2288        | 162                 |
| 2289                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2289        | 136                 |
| 2290                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2290        | 120                 |
| 2291                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2291        | 144                 |
| 2292                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2292        | 120                 |
| 2293                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2293        | 121                 |
| 2294                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2294        | 128                 |
| 2295                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2295        | 124                 |
| 2296                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2296        | 130                 |
| 2297                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2297        | 129                 |
| 2298                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2298        | 128                 |
| 2299                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2299        | 120                 |
| 2300                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2300        | 126                 |
| 2301                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2301        | 124                 |
| 2302                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2302        | 125                 |
| 2303                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2303        | 120                 |
| 2304                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2304        | 116                 |
| 2305                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2305        | 118                 |
| 2306                      | S-23099 | WHSE STOCK | CHJ         | 1/2* 600# SA-105 CL2 XH               | 2306        | 132                 |
| 2308                      | S-16801 | WHSE STOCK | BND         | 2* 600# RF SW FLANGE ASME SA-105 C/80 | 2308        | 151                 |

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| Fitting/<br>Flange<br>Id. | RIR     | EIN    | Heat<br>No. | Description       | Test<br>Id. | Brinell<br>Hardness |
|---------------------------|---------|--------|-------------|-------------------|-------------|---------------------|
| FP-758-1                  | S-22594 | 2FP15M | OMP         | 6" 150# WN FLANGE | C-52209-BR  | 151                 |
| FP-758-2                  | S-22594 | 2FP15M | OMP         | 6" 150# WN FLANGE | REMOVED     | 0                   |

(1) Abbreviations used:

Id. Identification

RIR Receipt Inspection Report - used for traceability

No. Number

EIN Equipment Identification Number - used to indicate approximate location of flange

WHSE Warehouse

SW Jocket weld - part of flange description

RF Raised face - part of flange description

WN Welding neck - part of flange description

SO Slip on - part of flange description

LJ Lap joint - part of flange description

FF Flat face - part of flange description