



# Nebraska Public Power District

COOPER NUCLEAR STATION  
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NLS980145  
September 21, 1998

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-0001

Gentlemen:

Subject: Inservice Inspection Relief Requests  
Cooper Nuclear Station, NRC Docket 50-298, DPR-46

- Reference:
1. Letter (No. NLS980020) to USNRC Document Control Desk from G. R. Horn (NPPD) dated April 23, 1998, "Cooper Nuclear Station Inservice Inspection Relief Requests"
  2. Letter to G. R. Horn (NPPD) from D. L. Wigginton for J. R. Hall (USNRC) dated August 14, 1998, "Request for Additional Information Regarding Cooper Nuclear Station Third Interval Inservice Inspection Program Plan Requests for Relief (TAC No. MA2138)"

In April 1998, Nebraska Public Power District (District ) submitted two revised and one new relief request for the Inservice Inspection Program (Reference 1). The NRC requested additional information (Reference 2) on certain of these relief requests. The attachments to this letter provide the additional information requested.

Should you have any questions concerning this matter, please contact me.

Sincerely,

John H. Swailes  
Vice President of Nuclear Energy

/dnm  
Attachments

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PDR ADOCK 05000298  
G PDR

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cc: Regional Administrator  
USNRC - Region IV

Senior Project Manager  
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector  
USNRC

Michael T. Anderson  
INEEL Research Center

NPG Distribution

**Response to Request for Additional Information  
Cooper Nuclear Station Inservice Inspection Program  
Relief Requests**

**Attachment 1**

- a. **Request for Relief RI-17, Revision 1.** *The Licensee is proposing an alternative to the minimum examination requirements of ASME Code Case N-509 for several Class 1 piping integral attachment welds. In an SER dated October 23, 1997, the Licensee was authorized to use Code Case N-509 and committed to perform a minimum 10% examination of all Class 1, 2, and 3 piping, pump and valve integral attachment welds.*

*Code Case N-509 significantly reduces the number of examinations (from 100 to 10%) required during each interval; this is consistent with the sampling philosophy used by the Code for other Examination Categories. However, no guidance is given for which components are to be examined; therefore, the licensee may use a certain level of discretion when choosing examination items.*

*Do additional integrally welded attachments, not currently being examined, exist within the same Class 1 systems as those for which relief is being requested?*

**Response.** Yes. Additional integrally welded attachments, not currently being examined, do exist in most of the systems for which relief is being requested.

*Are there other welds that could be examined to provide the minimum required to meet Code Case N-509?*

**Response.** No. No other welds could reasonably be selected for the integral attachments identified in the relief request. Code Case N-509 implies that the integral attachments selected for examination should be associated with the supports selected for examination under IWF. (Copper Nuclear Station uses Code Case N-491 for the selection and examination of component supports.) In addition, the selected supports and integral attachment welds should be distributed throughout the piping systems in order to provide a representative sample. This was the basis CNS used for selecting the integral attachments to be examined. Details for each of the affected systems are as follows:

There are 17 integral attachments on the Class 1 Feedwater piping. The Class 1 Feedwater system consists of four loops of piping from each of the Feedwater nozzles, which merge into two main loops before exiting the primary containment. One integral attachment on Loop A and one integral attachment on loop B were selected for examination. The other integral attachments in the Feedwater system also have access restrictions or were previously excluded from examination. Some of the pipe clamps associated with these integral attachments were installed by welding and can not easily be disassembled. The accessible portions of an additional integral attachment weld on the Feedwater system will be examined to compensate for the restricted access.



There are only 2 integral attachments on the Recirculation system piping (the other integral attachments are on the pumps). Both of the attachments are similar in design but are on different piping loops. The integral attachment on loop A was selected for examination. The accessible portions of the integral attachment on loop B will also be examined to compensate for the restricted access on the loop A attachment.

The attachment on the Scram Discharge Piping is the only integral attachment weld in the non-exempt portion of this system. Thus there is no other integral attachment weld to be selected.

There are 94 integral attachments on the Residual Heat Removal piping (the other integral attachments are on the pumps and the heat exchangers). Ten of the pipe integral attachments were selected for examination to meet the 10% sample requirements. The ten attachments consist of four hanger lugs, three elbow lugs, and three stanchions. RHA-CE1-2 was selected because it was previously examined in the second interval and has a high design load. The accessible portions of another similar integral attachment in the RHR system will be examined to compensate for the restricted access on the RHA-CE1-2.

*Please provide further information, including lists of: 1) the total number of attachment welds in all Class 1 piping systems; 2) the number scheduled for examination during the interval; and 3) the estimated percentage of the total population obstructed by clamps, restraints, or other appurtenances.*

- Response.**
- 1) The Inservice Inspection (ISI) Program provides lists of the Class 1 and 2 non-exempt attachment welds in each system by Code item number and identifies the specific integral attachments selected for examination each period. For your convenience this information is also provided as Attachment 2. There are 72 Class 1 pipe integral attachments and 147 Class 2 pipe integral attachments.
  - 2) There are 13 Class 1 pipe integral attachments scheduled for inspection during the interval. There are 20 Class 2 pipe integral attachments scheduled for inspection during the interval.
  - 3) In lieu of providing an estimate of the total population of integrally welded attachments which are in some way obstructed, the District proposes inspecting the accessible portions of additional integral attachments in the affected systems as stated above.



- b. **Request for Relief RI-25, Revision 0.** *The licensee is requesting relief, based on impracticality, for the VT-1 Visual Examinations required for integral attachment welds on Class 3 Service Water Pumps. In an SER dated October 23, 1997, the Licensee was authorized to use Code Case N-509 and committed to perform a minimum 10% examination of all Class 1, 2, and 3 piping, pump and valve integral attachment welds. Additional guidance for selection of these welds is listed in Table 2500-1 of the Code Case.*

*The licensee stated:*

*"There are four vertical service water pumps. Each SW pump has an interior and exterior fillet weld attaching the pump discharge head to the pump column and a fillet weld attaching the pump column to the mounting plate. The portions of these welded attachments inside the discharge head are partially inaccessible due to the limited access through the service port in the discharge head and the configuration of the pump column. A complete examination is not possible. Approximately 60% of the total weld length is accessible for examination.*

*As an alternate examination, CNS will perform a visual examination (VT-1) of the accessible portions of welded attachments on two SW pumps. This is a 50% sample of the welded attachments of the SW pump component supports."*

*Code Case N-509 requires that the attachments selected for examination be **only those on the outside surface of the pressure-retaining component**. Additionally, the Code Case requires that only 10% of the applicable welds be examined, within other restrictions. Based on these requirements, it is unclear whether relief is necessary. Please discuss these discrepancies and, if relief is still necessary, provide drawings of the Service Water Pumps, depicting location and access restrictions for the integrally welded attachments.*

**Response.** There are four Service Water Pumps. The integral attachment welds on one pump need to be examined to meet the requirements of Code Case N-509. The Service Water Pump discharge head is located inside a pump support cylinder which is welded to a base plate. The top of the pump support cylinder is the support for the pump motor. The inlet of the discharge head is welded to the base plate and then connects to the pump column. The outlet of the discharge head is welded to the pump support cylinder and then connects to the discharge piping. These welds are the integral attachments described in the relief request. The attachments are on the exterior of the discharge head (i.e. the pressure retaining boundary), but inside and outside of the pump support cylinder. An access port in the pump support cylinder is provided for maintenance purposes and is the only access to the inside of the pump support cylinder. Since the configuration of the pump support cylinder and discharge head limits the access to the attachment welds inside the pump support cylinder, the requirements of N-509 can not be fully met. Thus this relief request is still required. In RI-25, CNS proposed examining the accessible portions of the integrally welded attachments on an additional Service Water pump as an alternative which would compensate for the restricted access to the welds on the single Service Water pump.

Attachment 1 to  
NLS980145  
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Attachment 3 provides a Service Water pump configuration drawing that has been marked up to depict the location and access restrictions for the integral attachments.

Attachment 2 to  
NLS980145  
14 Pages Total

**Attachment 2**

**Integrally Welded Attachments**  
**(Sorted by ASME Class, System, and Item Number)**



CODE CASE N-509  
 IWB-2500-1 CAT: B-K-1  
 REACTOR FEEDWATER SYSTEM

COOPER NUCLEAR STATION  
 INSERVICE INSPECTION PROGRAM REV: 2  
 THIRD INTERVAL

| PIPE.....  | SYSTEM.. | CNT. | ITEM.NO. | CFIG..... | SIZE.. | TKNS..... | MAT..... | ISO..... | EXAMS..... | PER RELREQ | REMARKS.....  |
|------------|----------|------|----------|-----------|--------|-----------|----------|----------|------------|------------|---|
| CWB-BK1-6  | RF-A     | 1    | B10.20   | STN       |        |           | CS       | 2509-1   | MT/PT      |            | RFH-74...   |
| FWA-BK1-4  | RF-A     | 1    | B10.20   | HSL       |        |           | CS       | 2509-1   | MT/PT      |            | RFH-72... (LUGS) MUST REMOVE PIPE CLAMP ON SUPPORT RFH-72 TO ACCESS COMPLETE EXAM AREA...   |
| FWA-BK1-7  | RF-A     | 1    | B10.20   | SSL       |        |           | CS       | 2509-1   | MT/PT      |            | RFS-17...   |
| FWB-BK1-4  | RF-A     | 1    | B10.20   | SSL       |        |           | CS       | 2509-1   | MT/PT      |            | RFS-14...   |
| FWA-BK1-12 | RF-A     | 1    | B10.20   | SSL       |        |           | CS       | 2509-1   | MT/PT      |            | RFS-18,RFS-19... (12 LUGS)...   |
| FWA-BK1-16 | RF-A     | 1    | B10.20   | SSL       |        |           | CS       | 2509-1   | MT/PT      |            | RFS-15... (LUGS)  |
| FWA-BK1-28 | RF-A     | 1    | B10.20   | HSL       |        |           | CS       | 2509-1   | MT/PT      |            | RFH-69...   |
| FWA-BK1-36 | RF-A     | 1    | B10.20   | SP-FH     |        |           | CS       | 2509-1   | MT/PT      |            | RFH-68A... PLATE, ATTACHMENT WELDED TO CONT PEN X-9A, EXAM LIMITED DUE TO CONFIGURATION OF CONT PEN X-9A AND ATTACHMENT, RELIEF REQUEST REQUIRED... |
| FWA-BK1-80 | RF-A     | 1    | B10.20   | SSL       |        |           | CS       | 2509-1   | MT/PT      |            | RFS-16... MUST REMOVE PIPE CLAMP TO ACCESS COMPLETE EXAM AREA, PIPE CLAMP WELDED TOGETHER...  |
| FWB-BK1-8  | RF-A     | 1    | B10.20   | HSL       |        |           | P2       | 2509-1   | MT/PT      | 1          | RI-17 RFH-73...   |
| FWC-BK1-4  | RF-B     | 1    | B10.20   | HSL       |        |           | CS       | 2509-2   | MT/PT      |            | RFH-66... (LUGS)  |
| FWD-BK1-4  | RF-B     | 1    | B10.20   | HSL       |        |           | CS       | 2509-2   | MT/PT      |            | RFH-65... (LUGS)  |
| FWD-BK1-7  | RF-B     | 1    | B10.20   | HSL       |        |           | CS       | 2509-2   | MT/PT      |            | RFS-10... (LUGS)  |
| FWD-BK1-12 | RF-B     | 1    | B10.20   | SSL       |        |           | CS       | 2509-2   | MT/PT      |            | RFS-8,RFS-9... (12 LUGS)...   |
| FWD-BK1-26 | RF-B     | 1    | B10.20   | HSL       |        |           | CS       | 2509-2   | MT/PT      |            | RFH-62... LUGS WELDED TO PIPE CLAMP ON SUPPORT  |
| FWD-BK1-35 | RF-B     | 1    | B10.20   | SP-FH     |        |           | CS       | 2509-2   | MT/PT      |            | RFH-62... PLATE, ATTACHMENT WELDED TO CONT PEN X-9B, EXAM LIMITED DUE TO CONFIGURATION OF CONT PEN X9B AND ATTACHMENT, RELIEF REQUEST REQUIRED...   |
| FWC-BK1-8  | RF-B     | 1    | B10.20   | SSL       |        |           | CS       | 2509-2   | MT/PT      | 2          | RFS-13...   |
|            |          | 17   | ***      |           |        |           |          |          |            |            |   |
| ***        |          | 17   |          |           |        |           |          |          |            |            |   |

CODE CASE N-509  
 IWB-2500-1 CAT: B-K-1  
 MAIN STEAM SYSTEM

COOPER NUCLEAR STATION  
 INSERVICE INSPECTION PROGRAM REV: 2  
 THIRD INTERVAL

| PIPE.....   | SYSTEM.. | CNT. | ITEM.NO. | CFIG..... | SIZE.. | TKNS..... | MAT..... | ISO.....    | EXAMS..... | PER RELREQ | REMARKS.....  |
|-------------|----------|------|----------|-----------|--------|-----------|----------|-------------|------------|------------|---|
| PSA-BK1-23  | MS       | 1    | B10.20   | SP-FH     |        |           | CS       | 2506-1      | MT/PT      |            | MSH-134A... PLATE,<br>ATTACHMENT WELDED TO CONT<br>PEN X-11...  |
| RSA-BK1-22  | MS       | 1    | B10.20   | IPS       |        |           | CS       | 2506-2      | MT/PT      |            | MSH-149A...   |
| RSA-BK1-23  | MS       | 1    | B10.20   | STN       |        |           | CS       | 2506-2      | MT/PT      |            | MSH-150...  |
| PSA-BK1-19  | MS       | 1    | B10.20   | HSL       |        |           | CS       | 2506-1      | MT/PT      | 1          | RI-17 MSH-134...  |
| MSA-BK1-11  | MS-A     | 1    | B10.20   | SP        |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-SSA3...  |
| MSA-BK1-13  | MS-A     | 1    | B10.20   | SP        |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-SSA2...  |
| MSA-BK1-18  | MS-A     | 1    | B10.20   | LUGS      |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-HA2...   |
| MSA-BK1-28  | MS-A     | 1    | B10.20   | LUGS      |        |           | CS       | GE731E611-4 | MT/PT      |            | HA-3...   |
| MSA-BK1-44  | MS-A     | 1    | B10.20   | SP-FH     |        |           | CS       | GE731E611-4 | MT/PT      |            | MSH-167... ATTACHMENT<br>WELDED TO CONT PEN X-7A,<br>EXAM LIMITED DUE TO<br>CONFIGURATION OF CONT PEN<br>X-7A AND ATTACHMENT,<br>RELIEF REQUEST<br>REQUIRED...        |
| MSA-BK1-GA1 | MS-A     | 1    | B10.20   | HSL       |        |           | CS       | GE731E671   | MT/PT      |            | MS-GA1...   |
| MSA-BK1-6   | MS-A     | 1    | B10.20   | HSL       |        |           | CS       | GE731E611-4 | MT/PT      | 3          | MS-HA1...   |
| MSB-BK1-5   | MS-B     | 1    | B10.20   | HSL       |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-HB1... (LUGS)  |
| MSB-BK1-11  | MS-B     | 1    | B10.20   | SP        |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-SSB3...  |
| MSB-BK1-12  | MS-B     | 1    | B10.20   | SP        |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-SSB2...  |
| MSB-BK1-17  | MS-B     | 1    | B10.20   | LUGS      |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-HB2...   |
| MSB-BK1-40  | MS-B     | 1    | B10.20   | SP-FH     |        |           | CS       | GE731E611-4 | MT/PT      |            | MSH-168... ATTACHMENT<br>WELDED TO CONT PEN X-7B,<br>EXAM LIMITED DUE TO<br>CONFIGURATION OF CONT PEN<br>X-7B AND ATTACHMENT,<br>RELIEF REQUEST<br>REQUIRED...        |
| MSB-BK1-GB1 | MS-B     | 1    | B10.20   | HSL       |        |           | CS       | GE731E671   | MT/PT      |            | MS-GB1...   |
| MSB-BK1-32  | MS-B     | 1    | B10.20   | LUGS      |        |           | CS       | GE731E611-4 | MT/PT      | 2          | MS-HB3...   |
| MSC-BK1-6   | MS-C     | 1    | B10.20   | HSL       |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-HC1... (LUGS)  |
| MSC-BK1-12  | MS-C     | 1    | B10.20   | SP        |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-SSC3...  |
| MSC-BK1-14  | MS-C     | 1    | B10.20   | SP        |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-SSC2...  |
| MSC-BK1-15  | MS-C     | 1    | B10.20   | LUGS      |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-HC2...   |
| MSC-BK1-20  | MS-C     | 1    | B10.20   | LUGS      |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-HC3...   |
| MSC-BK1-23  | MS-C     | 1    | B10.20   | SP        |        |           | CS       | GE731E611-4 | MT/PT      |            | MSH-169... ATTACHMENT<br>WELDED TO CONT PEN X-7C,<br>EXAM LIMITED DUE TO<br>CONFIGURATION OF CONT PEN<br>X-7C AND ATTACHMENT,<br>RELIEF REQUEST REQUIRED<br>MS-GC1... |
| MSC-BK1-GC1 | MS-C     | 1    | B10.20   | HSL       |        |           | CS       | GE731E671   | MT/PT      |            |   |

CODE CASE N-509  
 IWB-2500-1 CAT: B-K-1  
 MAIN STEAM SYSTEM

COOPER NUCLEAR STATION  
 INSERVICE INSPECTION PROGRAM REV: 2  
 THIRD INTERVAL

| PIPE.....   | SYSTEM.. | CNT. | ITEM.NO. | CFG..... | SIZE.. | TKNS..... | MAT..... | ISO.....    | EXAMS..... | PER RELREQ | REMARKS.....   |
|-------------|----------|------|----------|----------|--------|-----------|----------|-------------|------------|------------|--|
| MSD-BK1-6   | MS-D     | 1    | B10.20   | HSL      |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-HD1... (LUGS) MUST REMOVE PIPE CLAMP ON SUPPORT MS-HD1 TO ACCESS COMPLETE EXAM AREA...  |
| MSD-BK1-11  | MS-D     | 1    | B10.20   | SP       |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-SSD3...   |
| MSD-BK1-13  | MS-D     | 1    | B10.20   | SP       |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-SSD2...   |
| MSD-BK1-18  | MS-D     | 1    | B10.20   | LUGS     |        |           | CS       | GE731E611-4 | MT/PT      |            | MS-HD2...  |
| MSD-BK1-48  | MS-D     | 1    | B10.20   | SP-FH    |        |           | CS       | GE731E611-4 | MT/PT      |            | MSH-170... ATTACHMENT WELDED TO CONT PEN X-7D, EXAM LIMITED DUE TO CONFIGURATION OF CONT PEN X-7D AND ATTACHMENT, RELIEF REQUEST REQUIRED... |
| MSD-BK1-GD1 | MS-D     | 1    | B10.20   | HSL      |        |           | CS       | GE731E671   | MT/PT      |            | MS-GD1...  |
| MSD-BK1-32  | MS-D     | 1    | B10.20   | LUGS     |        |           | CS       | GE731E611-4 | MT/PT      | 3          | MS-ID3...  |
| MSDR-BK1-4A | MSDR     | 1    | B10.20   | STN      |        | .438      | P1       | 2506-3      | MT/PT      |            | MSH-152...   |
|             |          | 33   | ***      |          |        |           |          |             |            |            |  |
|             |          | 33   | ***      |          |        |           |          |             |            |            |  |



CODE CASE N-509  
 IWB-2500-1 CAT: B-K-1  
 RESIDUAL HEAT REMOVAL SYSTEM

COOPER NUCLEAR STATION  
 INSERVICE INSPECTION PROGRAM REV: 2  
 THIRD INTERVAL

| PIPE.....  | SYSTEM.. | CNT. | ITEM.NO. | CFIG..... | SIZE.. | TKNS.... | MAT..... | ISO..... | EXAMS..... | PER RELREQ | REMARKS.....                      |
|------------|----------|------|----------|-----------|--------|----------|----------|----------|------------|------------|-----------------------------------|
| RHA-BK1-20 | RHR      | 1    | B10.20   | HSL       |        |          | CS       | 2510-1   | MT/PT      |            | RHH-34... (LUGS)                  |
| RHA-BK1-24 | RHR      | 1    | B10.20   | HSL       |        |          | CS       | 2510-1   | MT/PT      |            | RHS-69... (LUGS)                  |
| RHA-BK1-80 | RHR      | 1    | B10.20   | HSL       |        |          | CS       | 2510-1   | MT/PT      |            | RHH-33... (LUGS)                  |
| RHA-BK1-81 | RHR      | 1    | B10.20   | STN       |        |          | CS       | 2510-1   | MT/PT      |            | RHS-70...                         |
| RHB-BK1-9  | RHR-A    | 1    | B10.20   | SSL       |        |          | CS       | 2510-4   | MT/PT      |            | RHS-8... (LUGS)                   |
| RHB-BK1-80 | RHR-A    | 1    | B10.20   | IPS       |        |          | CS       | 2410-4   | MT/PT      |            | RHH-121...                        |
| RHB-BK1-81 | RHR-A    | 1    | B10.20   | IPS       |        |          | CS       | 2410-4   | MT/PT      |            | RHH-123...                        |
| RHB-BK1-16 | RHR-A    | 1    | B10.20   | SSL       |        |          | CS       | 2510-4   | MT/PT      | 3          | RHS-6... (LUGS)                   |
| RHC-BK1-13 | RHR-B    | 1    | B10.20   | SSL       |        |          | CS       | 2510-3   | MT/PT      |            | RHS-15... (LUGS)                  |
| RHC-BK1-80 | RHR-B    | 1    | B10.20   | SSL       |        |          | CS       | 2510-3   | MT/PT      |            | RHS-18 AND RHS-19...<br>(LUGS)... |
| RHC-BK1-81 | RHR-B    | 1    | B10.20   | SSL       |        |          | CS       | 2510-3   | MT/PT      |            | RHS-13... (LUGS)                  |
| RHC-BK1-24 | RHR-B    | 1    | B10.20   | STN       |        |          | CS       | 2510-3   | MT/PT      | 1          | RHH-70...                         |
|            |          | 12   | ***      |           |        |          |          |          |            |            |                                   |
| ***        |          | 12   |          |           |        |          |          |          |            |            |                                   |

CODE CASE N-509  
 IWB-2500-1 CAT: B-K-1  
 REACTOR RECIRCULATION SYSTEM

COOPER NUCLEAR STATION  
 INSERVICE INSPECTION PROGRAM REV: 2  
 THIRD INTERVAL

| PIPE..... | SYSTEM.. | CNT. | ITEM.NO. | CFIG..... | SIZE.. | TKNS..... | MAT..... | ISO..... | EXAMS..... | PER RELREQ | REMARKS.....   |
|-----------|----------|------|----------|-----------|--------|-----------|----------|----------|------------|------------|--|
| RR-BK1-4A | RR-A     | 1    | B10.20   | HSL       |        |           | SS       | ISO-RL-A | PT         | 2          | RR LOOP-A... LUGS FOR<br>SUPPORT RR-H1-A...<br>RR-H2-B... (LUGS) RR<br>LOOP-B...   |
| RR-BK1-4B | RR-B     | 1    | B10.20   | HSL       |        |           | SS       | ISO-RL-B | PT         |            |  |
|           |          | 2    | ***      |           |        |           |          |          |            |            |  |
| RR-BK1-1A | RR-A     | 1    | B10.30   | LUG       |        |           | SS       | 731E225  | PT         |            | RR PMP-A... ATTACHMENT<br>LUG FOR SUPPORTS RR-SS1-A<br>AND RR-H5-A...  |
| RR-BK1-2A | RR-A     | 1    | B10.30   | LUG       |        |           | SS       | 731E225  | PT         |            |  |
| RR-BK1-3A | RR-A     | 1    | B10.30   | LUG       |        |           | SS       | 731E225  | PT         |            | RR PMP-A... ATTACHMENT<br>LUG FOR SUPPORTS RR-SS2-A<br>AND RR-H7-A...<br>RR PMP-A... ATTACHMENT<br>LUG FOR SUPPORTS RR-SS5-A<br>AND RR-H6-A... |
| RR-BK1-1B | RR-B     | 1    | B10.30   | LUG       |        |           | SS       | 731E225  | PT         | 3          |  |
| RR-BK1-2B | RR-B     | 1    | B10.30   | LUG       |        |           | SS       | 731E225  | PT         | 3          | RR PMP-B... ATTACHMENT<br>LUG FOR SUPPORTS RR-SS1-B<br>AND RR-H5-B...<br>RR PMP-B... ATTACHMENT<br>LUG FOR SUPPORTS RR-SS2-B<br>AND RR-H7-B... |
| RR-BK1-3B | RR-B     | 1    | B10.30   | LUG       |        |           | SS       | 731E225  | PT         | 3          |  |
|           |          | 6    | ***      |           |        |           |          |          |            |            |  |
| ***       |          | 8    |          |           |        |           |          |          |            |            |  |

CODE CASE N-509  
IWB-2500-1 CAT: B-K-1  
REACTOR WATER CLEANUP SYSTEM

COOPER NUCLEAR STATION  
INSERVICE INSPECTION PROGRAM REV: 2  
THIRD INTERVAL

| PIPE.....  | SYSTEM.. | CNT. | ITEM.NO. | CFIG..... | SIZE.. | TKNS..... | MAT..... | ISO..... | EXAMS..... | PER RELREQ | REMARKS.....                                |
|------------|----------|------|----------|-----------|--------|-----------|----------|----------|------------|------------|---|
| CWA-BK1-24 | RWCU     | 1    | B10.20   | HSL       |        |           | SS       | 2503-1   | PT         |            | CUH-49...                                   |
| CWA-BK1-29 | RWCU     | 1    | B10.20   | SP-FH     |        |           | SS       | 2503-1   | PT         | 1          | CUH-50... SUPPORT WELDED<br>TO CONT. PEN... |
|            |          | 2    | ***      |           |        |           |          |          |            |            |   |
| ***        |          | 2    |          |           |        |           |          |          |            |            |   |



CODE CASE N-509  
 IWC-2500-1 CAT: C-C  
 CORE SPRAY SYSTEM

COOPER NUCLEAR STATION  
 INSERVICE INSPECTION PROGRAM REV: 2  
 THIRD INTERVAL

| PIPE.....  | SYSTEM.. | CNT. | ITEM.NO. | CFIG..... | SIZE.. | TKNS..... | MAT..... | ISO.....  | EXAMS..... | PER RELREQ | REMARKS.....   |
|------------|----------|------|----------|-----------|--------|-----------|----------|-----------|------------|------------|--|
| CSA-CC-10  | CS-A     | 1    | C3.20    | STN       | 16     | .375      | P1       | 2603-1    | MT/PT      |            | CSS-13...  |
| CSA-CC-1A  | CS-A     | 1    | C3.20    | PC-P      | 16     | .844      | P2       | CB&I-69   | MT/PT      |            | CSA-X-227A... TORUS<br>PENETRATION X-227A,<br>SUPPLY CS 'B' PMP<br>SUCTION...            |
| CSA-CC-38  | CS-A     | 1    | C3.20    | HSL       | 12     | .375      | P1       | 2602-2    | MT/PT      |            | CSH-18A, LUGS WELDED TO<br>PIPE CLAMP...   |
| CSA-CC-89  | CS-A     | 1    | C3.20    | IPS       | 12     |           | CS       | 2602-2    | MT/PT      |            | CSS-16...  |
| CSA-CC-90  | CS-A     | 1    | C3.20    | IPS       | 12     |           | CS       | 2602-2    | MT/PT      |            | CSH-17A...   |
| CSA-CC-91  | CS-A     | 1    | C3.20    | IPS       | 12     |           | CS       | 2602-2    | MT/PT      |            | CSH-19A...   |
| CSA-CC-6   | CS-A     | 1    | C3.20    | PLATE     | 16     | .375      | P1       | 2603-1    | MT/PT      | 1          | CSH-4...   |
| CSB-CC-4   | CS-B     | 1    | C3.20    | PLATE     | 16     | .375      | P1       | 2603-2    | MT/PT      |            | CSH-1...   |
| CSB-CC-9   | CS-B     | 1    | C3.20    | PLATE     | 16     | .375      | P1       | 2603-2    | MT/PT      |            | CSH-2...   |
| CSB-CC-1A  | CS-B     | 1    | C3.20    | PC-P      | 16     | .844      | P2       | CB&I-69   | MT/PT      |            | CSB-X-227B... TORUS<br>PENETRATION X-227B,<br>SUPPLY CS 'B' PMP<br>SUCTION...            |
| CSB-CC-32  | CS-B     | 1    | C3.20    | PLATE     | 12     | .375      | P1       | 2602-1    | MT/PT      |            | CSH-7...   |
| CSB-CC-51  | CS-B     | 1    | C3.20    | IPS       | 12     | .375      | P1       | 2602-1    | MT/PT      |            | CSH-10...  |
| CSB-CC-57  | CS-B     | 1    | C3.20    | E-LUG     | 12     |           | F1       | 2602-1    | MT/PT      |            | CSH-11...  |
| CSB-CC-102 | CS-B     | 1    | C3.20    | IPS       | 12     | .375      | CS       | 2602-1    | MT/PT      |            | CSH-9A...  |
| CSB-CC-WR2 | CS-B     | 1    | C3.20    | PLATE     | 16     | .375      | P1       | KE-110.01 | MT/PT      |            | CSB-WR-2, OFF TORUS PEN<br>X-227B, ALSO SEE JELCO<br>DWG 2603-2                          |
| CSB-CC-10  | CS-B     | 1    | C3.20    | STN       | 16     | .375      | P1       | 2603-2    | MT/PT      | 2          | CSS-14A...   |
|            |          | 16   | ***      |           |        |           |          |           |            |            |  |
| CS-PA-A1   | CS-A     | 1    | C3.30    | SP-PUMP   |        |           | CS       | 2602-2    | MT/PT      |            | CS-PA-S1... ALL<br>ATTACHMENT WELDS ON CORE<br>SPRAY PMP-A, BYRON<br>JACKSON DWG 2C-4836 |
| CS-PB-A1   | CS-B     | 1    | C3.30    | SU-PUMP   |        |           | CS       | 2602-1    | MT/PT      | 3          | CS-PB-S1... ALL<br>ATTACHMENT WELDS ON CORE<br>SPRAY PMP-B, BYRON<br>JACKSON DWG 2C-4836 |
|            |          | 2    | ***      |           |        |           |          |           |            |            |  |
| ***        |          | 18   |          |           |        |           |          |           |            |            |  |

CODE CASE N-509  
 IWC-2500-1 CAT: C-C  
 HPCI SYSTEM

COOPER NUCLEAR STATION  
 INSERVICE INSPECTION PROGRAM REV: 2  
 THIRD INTERVAL

| PIPE.....  | SYSTEM.. | CNT. | ITEM.NO. | CFIG..... | SIZE.. | TKNS..... | MAT..... | ISO..... | EXAMS..... | PER RELREQ | REMARKS.....   |
|------------|----------|------|----------|-----------|--------|-----------|----------|----------|------------|------------|--|
| HPIS-CC-4  | HPCI     | 1    | C3.20    | PLATE     | 16     | .375      | P1       | 2611-6   | MT/PT      |            | HPH-8...   |
| HPIS-CC-6  | HPCI     | 1    | C3.20    | STN       | 16     | .375      | P1       | 2611-6   | MT/PT      |            | HPH-9...   |
| HPID-CC-16 | HPCI     | 1    | C3.20    | STN       | 10     | .938      | CS       | 2609-1   | MT/PT      |            | HPH-7...   |
| HPID-CC-70 | HPCI     | 1    | C3.20    | HSL       |        |           | CS       | 2623-3   | MT/PT      |            | RFH-53... MUST REMOVE<br>PIPE CLAMP TO ACCESS<br>COMPLETE EXAM AREA, HSK<br>SHOWS LUGS WELDED TO PIPE<br>CLAMP |
| HPID-CC-76 | HPCI     | 1    | C3.20    | PLATE     |        |           | CS       | 2623-2   | MT/PT      |            | RFH-41...  |
| HPID-CC-77 | HPCI     | 1    | C3.20    | PLATE     |        |           | CS       | 2623-2   | MT/PT      |            | RFH-45A...   |
| HPID-CC-78 | HPCI     | 1    | C3.20    | PLATE     |        |           | CS       | 2623-3   | MT/PT      |            | RFH-59...  |
| HPID-CC-79 | HPCI     | 1    | C3.20    | IPS       |        |           | CS       | 2623-3   | MT/PT      |            | RFH-54...  |
| HPID-CC-80 | HPCI     | 1    | C3.20    | IPS       |        |           | CS       | 2623-3   | MT/PT      |            | RFH-55...  |
| HPIS-CC-11 | HPCI     | 1    | C3.20    | STN       | 16     | .375      | P1       | 2611-6   | MT/PT      |            | HPH-10...  |
| HPIS-CC-1A | HPCI     | 1    | C3.20    | P-PC      | 16     | .844      | P2       | CB&I-69  | MT/PT      |            | HPIS-X-226... TORUS<br>PENETRATION X-226, SUPPLY<br>HPCI PMP SUCTION...  |
| HPID-CC-5  | HPCI     | 1    | C3.20    | STN       | 10     | .938      | CS       | 2609-1   | MT/PT      | 1          | HPH-6...   |
| HPIS-CC-22 | HPCI     | 1    | C3.20    | PLATE     | 16     | .375      | P1       | 2611-6   | MT/PT      | 2          | HPH-11...  |

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CODE CASE N-509  
 IWC-2500-1 CAT: C-C  
 MAIN STEAM SYSTEM

COOPER NUCLEAR STATION  
 INSERVICE INSPECTION PROGRAM REV: 2  
 THIRD INTERVAL

| PIPE.....  | SYSTEM.. | CNT. | ITEM.NO. | CFIG..... | SIZE.. | TKNS..... | MAT..... | ISO..... | EXAMS..... | PER RELREQ | REMARKS..... |
|------------|----------|------|----------|-----------|--------|-----------|----------|----------|------------|------------|--------------|
| PSA-CE1-2  | MS       | 1    | C3.20    | IPS       |        |           | CS       | 2629-1   | MT/PT      |            | MSH-101A...  |
| PSA-CE1-4  | MS       | 1    | C3.20    | IPS       |        |           |          | 2629-1   | MT/PT      |            | MSH-97...    |
| PSA-CE1-5  | MS       | 1    | C3.20    |           |        |           |          | 2629-1   | MT/PT      |            | MSH-95A...   |
| PSA-CE1-6  | MS       | 1    | C3.20    |           |        |           | P1       | 2629-1   | MT/PT      |            | MSS-7...     |
| RAS-CE1-4  | MS       | 1    | C3.20    | E-L       |        |           |          | 2629-1   | MT/PT      |            | MSH-114...   |
| RAS-CE1-5  | MS       | 1    | C3.20    | PLATE     |        |           | CS       | 2629-1   | MT/PT      |            | MSH-99...    |
| RBS-CE1-2  | MS       | 1    | C3.20    | HSL       |        |           | CS       | 2629-1   | MT/PT      |            | MSH-103A     |
| RSA-CC-26  | MS       | 1    | C3.20    | STN       | 4      | TYP-C     | P1       | 2614-1   | MT/PT      |            | MSS-6...     |
| HPEX-CC-14 | MS       | 1    | C3.20    | P-H       | 20     | .375      | P1       | 2614-3   | MT/PT      |            | MSH-154A...  |
| HPEX-CC-17 | MS       | 1    | C3.20    | STN       | 20     | .375      | P1       | 2614-3   | MT/PT      |            | MSH-155A...  |
| HPEX-CC-32 | MS       | 1    | C3.20    | STN       | 16     | .375      | P1       | 2614-3   | MT/PT      |            | MSS-4...     |
| HPEX-CC-59 | MS       | 1    | C3.20    | STN       |        |           | CS       | 2614-3   | MT/PT      |            | MSH-118...   |
| PSA-CE1-1  | MS       | 1    | C3.20    | STN       |        |           | CS       | 2629-1   | MT/PT      | 1          | MSH-109...   |
| RSA-CC-25  | MS       | 1    | C3.20    | HSL       | 8      | 40        | P1       | 2614-1   | MT/PT      | 2          | MSH-121...   |
|            |          | 14   | ***      |           |        |           |          |          |            |            |              |
| ***        |          | 14   |          |           |        |           |          |          |            |            |              |



CODE CASE N-509  
 IWC-2500-1 CAT: C-C  
 RCIC SYSTEM

COOPER NUCLEAR STATION  
 INSERVICE INSPECTION PROGRAM REV: 2  
 THIRD INTERVAL

| PIPE.....  | SYSTEM.. | CN1. | ITEM.NO. | CFIG..... | SIZE.. | TKNS..... | MAT..... | ISO..... | EXAMS..... | PER RELREQ | REMARKS.....                    |
|------------|----------|------|----------|-----------|--------|-----------|----------|----------|------------|------------|---------------------------------|
| RWA-CC-13  | RCIC     | 1    | C3.20    | P-PC      | 6      | 1.25      | P2       | CB&I-69  | MT/PT      |            | RWA-X-224... X-224 TORUS<br>PEN |
| RWA-CC-36  | RCIC     | 1    | C3.20    | STN       | 6      | .280      | P1       | 2621-1   | MT/PT      |            | RCH-5...                        |
| RWA-CC-69  | RCIC     | 1    | C3.20    | IPS       |        |           | CS       | 2621-2   | MT/PT      |            | RCH-33...                       |
| RWA-CC-70  | RCIC     | 1    | C3.20    | PLATE     |        |           | CS       | 2621-2   | MT/PT      |            | RCS-15...                       |
| RWA-CC-71  | RCIC     | 1    | C3.20    | IPS       |        |           | CS       | 2621-1   | MT/PT      |            | RCH-3A...                       |
| RWA-CC-52A | RCIC     | 1    | C3.20    | E-L       | 6      | .280      | F1       | 2621-1   | MT/PT      | 2          | RCH-6...                        |
|            |          | 6    | ***      |           |        |           |          |          |            |            |                                 |
| ***        |          | 6    |          |           |        |           |          |          |            |            |                                 |

CODE CASE N-509  
IWC-2500-1 CAT: C-C  
RESIDUAL HEAT REMOVAL SYSTEM

COOPER NUCLEAR STATION  
INSERVICE INSPECTION PROGRAM REV: 2  
THIRD INTERVAL

| PIPE..... | SYSTEM.. | CNT. | ITEM.NO. | CFIG..... | SIZE.. | TKNS..... | MAT..... | ISO.....      | EXAMS..... | PER RELREQ | REMARKS.....  |
|-----------|----------|------|----------|-----------|--------|-----------|----------|---------------|------------|------------|---|
| RHR-CC-2A | RHR-A    | 1    | C3.10    | SP-VE     | 46     |           | CS       | SWECO.M-82454 | MT/PT      | 2          | RHHX-1A1,1A2,1A3,1A4...   |
| RHR-CC-2B | RHR-B    | 1    | C3.10    | SP-VE     | 46     |           | CS       | SWECO.M-82454 | MT/PT      |            | RHHX-1B1,1B2,1B3,1B4...   |
|           |          | 2    | ***      |           |        |           |          |               |            |            |   |
| RAW-CE1-3 | RHR      | 1    | C3.20    |           | N/A    |           | N/A      | 2625-1        | MT/PT      |            | RHH-7...  |
| RAW-CE1-4 | RHR      | 1    | C3.20    |           | N/A    |           | N/A      | 2625-1        | MT/PT      |            | RHS-80...   |
| RAW-CE1-5 | RHR      | 1    | C3.20    | HSL       | 20     |           | CS       | 2625-1        | MT/PT      |            | RHS-76...   |
| RHW-CE1-2 | RHR      | 1    | C3.20    | STN       | N/A    |           | CS       | 2625-4        | MT/PT      |            | RHH-12...   |
| RHA-CE1-1 | RHR      | 1    | C3.20    |           | N/A    |           | N/A      | 2625-3        | MT/PT      |            | RHH-53...   |
| RHA-CE1-2 | RHR      | 1    | C3.20    | SSL       | 20     | .375      | F1       | 2625-1        | MT/PT      | 1          | RI-17   |
| SW-CC-6   | RHR-A    | 1    | C3.20    | IPS       |        |           | CS       | 2624-3A       | MT/PT      |            | RHS-7...  |
| RPC-CC-6  | RHR-A    | 1    | C3.20    | STN       | 20     | .375      | P1       | 2626-1        | MT/PT      |            | RHH-61...<br>RHH-6...FORMALLY RPA-CC-6<br>IN II 2-IP 3 * DCN<br>CHANGED ID.NO REF NCR<br>91-088 * |
| RAS-CE1-1 | RHR-A    | 1    | C3.20    | E-L       |        |           | CS       | 2614-2        | MT/PT      |            | MSH-141...  |
| RAW-CC-92 | RHR-A    | 1    | C3.20    | STN       |        |           | CS       | 2624-3A       | MT/PT      |            | RHS-58...   |
| RAW-CE1-1 | RHR-A    | 1    | C3.20    | IPS       | N/A    |           | N/A      | 2625-2        | MT/PT      |            | RHS-63...   |
| RAW-CE1-2 | RHR-A    | 1    | C3.20    | STN       | N/A    |           | CS       | 2625-2        | MT/PT      |            | RHS-62...   |
| RAW-CE1-7 | RHR-A    | 1    | C3.20    | STN       | 4      | TYP-C     | CS       | 2625-1        | MT/PT      |            | RHS-81...   |
| RAW-CE1-9 | RHR-A    | 1    | C3.20    | HSL       |        |           | CS       | 2624-2        | MT/PT      |            | RHH-95...   |
| RHB-CC-22 | RHR-A    | 1    | C3.20    | STN       | 20     | 30        | P1       | 2624-1        | MT/PT      |            | RHH-26...   |
| RHB-CC-26 | RHR-A    | 1    | C3.20    | P-H       | 20     | 30        | P1       | 2624-1        | MT/PT      |            | RHH-24A...  |
| RHB-CC-37 | RHR-A    | 1    | C3.20    | P-H       | 24     | 30        | P1       | 2624-2        | MT/PT      |            | RHH-93B...  |
| RHB-CC-44 | RHR-A    | 1    | C3.20    | E-L       | 24     | 30        | F1       | 2624-2        | MT/PT      |            | RHH-89...   |
| RHB-CC-49 | RHR-A    | 1    | C3.20    | STN       | 24     | 30        | P1       | 2624-2        | MT/PT      |            | RHS-24... SEC.XI CREDIT<br>F91...   |
| RHB-CC-51 | RHR-A    | 1    | C3.20    | STN       | 24     | 30        | F1       | 2624-2        | MT/PT      |            | RHS-22...   |
| RHB-CC-56 | RHR-A    | 1    | C3.20    | STN       | 24     | 30        | F1       | 2624-2        | MT/PT      |            | RHH-91...   |
| RHB-CC-59 | RHR-A    | 1    | C3.20    | STN       | 24     | 30        | F1       | 2624-2        | MT/PT      |            | RHS-21...   |
| RHB-CC-62 | RHR-A    | 1    | C3.20    | SSL       |        |           | CS       | 2624-1        | MT/PT      |            | RHS-27AB&R...   |
| RHB-CC-63 | RHR-A    | 1    | C3.20    | IPS       |        |           | CS       | 2624-1        | MT/PT      |            | RHH-25A...  |
| RHB-CC-64 | RHR-A    | 1    | C3.20    | IPS       |        |           | CS       | 2624-1        | MT/PT      |            | RHH-24...   |
| RHB-CC-65 | RHR-A    | 1    | C3.20    | STN       |        |           | CS       | 2624-2        | MT/PT      |            | RHS-20...   |
| RHB-CC-66 | RHR-A    | 1    | C3.20    | PLATE     |        |           | CS       | 2624-2        | MT/PT      |            | RHH-93...   |
| RHB-CC-67 | RHR-A    | 1    | C3.20    | IPS       |        |           | CS       | 2624-2        | MT/PT      |            | RHH-88...   |
| RHB-CE1-1 | RHR-A    | 1    | C3.20    | HSL       |        |           | CS       | 2624-1        | MT/PT      |            | RHH-27...   |
| RHB-CE1-3 | RHR-A    | 1    | C3.20    | E-L       |        |           | CS       | 2624-1        | MT/PT      |            | RHH-30...   |
| RHB-CE1-4 | RHR-A    | 1    | C3.20    | IPS       | N/A    |           | N/A      | 2624-1        | MT/PT      |            | RHS-50...   |
| RHG-CC-18 | RHR-A    | 1    | C3.20    | E-H       | 10     | .365      | F1       | 2624-2        | MT/PT      |            | RHH-99...   |
| RPA-CC-16 | RHR-A    | 1    | C3.20    | PLATE     | 20     | .375      | F1       | 2625-2        | MT/PT      |            | RHH-1...  |
| RPA-CC-1A | RHR-A    | 1    | C3.20    | P-PC      | 20     | 1.7/16    | P2       | CB&I-69       | MT/PT      |            | RPA-X-225A... X-225A<br>TORUS PEN, SUPPLY, RHR  |

CODE CASE N-509  
IWC-2500-1 CAT: C-C  
RESIDUAL HEAT REMOVAL SYSTEM

COOPER NUCLEAR STATION  
INSERVICE INSPECTION PROGRAM REV: 2  
THIRD INTERVAL

| PIPE.....  | SYSTEM.. | CNT. | ITEM.NO. | CFIG..... | SIZE.. | TKNS..... | MAT..... | ISO..... | EXAMS..... | PER RELREQ | REMARKS.....   |
|------------|----------|------|----------|-----------|--------|-----------|----------|----------|------------|------------|--|
| RPA-CC-20  | RHR-A    | 1    | C3.20    | E-SP      | 16     | 40        | F1       | 2624-1   | MT/PT      |            | 'A' PMP SUCTION:..   |
| RPC-CC-1A  | RHR-A    | 1    | C3.20    | P-PC      | 20     | 1.7/16    | P2       | C8&I-69  | MT/PT      |            | RHH-21...<br>RPC-X-225B... X-225B<br>TORUS PEN, SUPPLY, RHR<br>'C' PMP SUCTION...  |
| RAW-CE1-14 | RHR-A    | 1    | C3.20    |           | N/A    |           | N/A      | 2624-3A  | MT/PT      |            | RHS-57...  |
| RAW-CE1-15 | RHR-A    | 1    | C3.20    |           | N/A    |           | N/A      | 2624-3A  | MT/PT      |            | RHH-61...  |
| RPC-CC-20A | RHR-A    | 1    | C3.20    | PLATE     | N/A    | N/A       | F1/F1    | 2624-1   | MT/PT      |            | RHH-23...  |
| RPC-CC-24A | RHR-A    | 1    | C3.20    | E-H       | 16     | 40        | F1       | 2624-1   | MT/PT      |            | RHS-55...  |
| RAW-CE1-12 | RHR-A    | 1    | C3.20    | LUG       | N/A    |           | CS       | 2624-3A  | MT/PT      | 1          | RHH-59...  |
| RPA-CC-9   | RHR-A    | 1    | C3.20    | STN       | 20     | .375      | P1       | 2626-1   | MT/PT      | 2          | RHH-2... FORMERLY<br>EXAMINED AS RPC-CC-9 *<br>DCN NO. C93-03M5 2/93 TO<br>CHANGE WELD ID.NO REF NCR<br>91-088 *                     |
| RHB-CC-53  | RHR-A    | 1    | C3.20    | E-L       | 24     | 30        | F1       | 2624-2   | MT/PT      | 3          | RHH-90...  |
| RHB-CE1-2  | RHR-A    | 1    | C3.20    | E-L       | 16     |           | CS       | 2624-1   | MT/PT      | 3          | RHH-28...  |
| RPC-CC-10  | RHR-A    | 1    | C3.20    | STN       | 20     | .375      | P1       | 2626-1   | MT/PT      | 3          | RHH-5... FORMERLY<br>EXAMINED AS RPA-CC-10 IN<br>INT 2, PER 2 * DCN NO.<br>C93-03B5 2/93 TO CHANGE<br>WELD ID.NO REF NCR 91-088<br>* |
| RHE-CC-3   | RHR-B    | 1    | C3.20    | E-SP      | 10     | .365      | F1       | 2624-7   | MT/PT      |            | RHH-140...   |
| RPB-CC-6   | RHR-B    | 1    | C3.20    | P-H       | 20     | .375      | P1       | 2626-2   | MT/PT      |            | RHH-19...  |
| RPB-CC-7   | RHR-B    | 1    | C3.20    | HSL       | 20"    | .375      | P1       | 2626-2   | MT/PT      |            | RHH-18A...   |
| RBS-CE1-1  | RHR-B    | 1    | C3.20    | E-L       |        |           | CS       | 2614-2   | MT/PT      |            | MSH-139...   |
| RCT-CC-27  | RHR-B    | 1    | C3.20    | IPS       |        |           | CS       | 2624-3B  | MT/PT      |            | RHH-62...  |
| RCT-CE1-1  | RHR-B    | 1    | C3.20    | SAD       | N/A    |           | N/A      | 2624-3A  | MT/PT      |            | RHH-57...  |
| RCT-CE1-2  | RHR-B    | 1    | C3.20    | P-H       | N/A    |           | N/A      | 2624-3A  | MT/PT      |            | RHH-54...  |
| RCT-CE1-4  | RHR-B    | 1    | C3.20    | HSL       |        |           | CS       | 2624-3B  | MT/PT      |            | RHH-50...  |
| RHC-CC-32  | RHR-B    | 1    | C3.20    | E-L       | 20     | 30        | F1       | 2624-3B  | MT/PT      |            | RHH-48...  |
| RHC-CC-36  | RHR-B    | 1    | C3.20    | P-H       |        |           |          | 2624-3B  | MT/PT      |            | RHH-47...  |
| RHC-CC-41  | RHR-B    | 1    | C3.20    | P-H       | 24     | 30        | P1       | 2624-5   | MT/PT      |            | RHH-64...  |
| RHC-CC-51  | RHR-B    | 1    | C3.20    | E-SB      | 24     | 30        | F1       | 2624-5   | MT/PT      |            | RHS-30...  |
| RHC-CC-52  | RHR-B    | 1    | C3.20    | E-L       | 24     | 30        | F1       | 2624-5   | MT/PT      |            | RHH-68...  |
| RHC-CC-61  | RHR-B    | 1    | C3.20    | IPS       |        |           | CS       | 2624-3B  | MT/PT      |            | RHH-118A...  |
| RHC-CC-62  | RHR-B    | 1    | C3.20    | IPS       |        |           | CS       | 2624-3B  | MT/PT      |            | RHH-47A...   |
| RHC-CC-63  | RHR-B    | 1    | C3.20    | PLATE     |        |           | CS       | 2624-5   | MT/PT      |            | RHH-64B...   |
| RHC-CE1-1  | RHR-B    | 1    | C3.20    | IPS       | N/A    |           | N/A      | 2624-3B  | MT/PT      |            | RHH-44A...   |
| RHC-CE1-2  | RHR-B    | 1    | C3.20    | E-L       | N/A    |           | N/A      | 2624-3B  | MT/PT      |            | RHH-43...  |
| RHD-CE1-1  | RHR-B    | 1    | C3.20    | E-L       |        |           | CS       | 2624-6   | MT/PT      |            | RHH-139...   |
| RHD-CE1-3  | RHR-B    | 1    | C3.20    | HSL       | N/A    |           | CS       | 2624-6   | MT/PT      |            | RHH-136...   |
| RHD-CE1-6  | RHR-B    | 1    | C3.20    | STN       |        |           |          | 2624-6   | MT/PT      |            | RHH-133...   |



CODE CASE N-509  
IWC-2500-1 CAT: C-C  
RESIDUAL HEAT REMOVAL SYSTEM

COOPER NUCLEAR STATION  
INSERVICE INSPECTION PROGRAM REV: 2  
THIRD INTERVAL

| PIPE.....  | SYSTEM.. | CNT. | ITEM.NO. | CFIG..... | SIZE.. | TKNS..... | MAT..... | ISO..... | EXAMS..... | PER RELREQ | REMARKS.....   |
|------------|----------|------|----------|-----------|--------|-----------|----------|----------|------------|------------|--|
| RPB-CC-10  | RHR-B    | 1    | C3.20    | STN       | 20     | .375      | P1       | 2626-2   | MT/PT      |            | RHH-18...  |
| RPB-CC-15  | RHR-B    | 1    | C3.20    | SP        | 20     | .375      | P1       | 2625-4   | MT/PT      |            | RHH-17...  |
| RPB-CC-1A  | RHR-B    | 1    | C3.20    | P-PC      | 20     | 1.7/16    | P2       | CB&I-69  | MT/PT      |            | RPC-X-225C... X-225C<br>TORUS PEN, SUPPLY, RHR<br>'B' PMP SUCTION...                               |
| RPB-CC-20  | RHR-B    | 1    | C3.20    | E-H       | 16     | 40        | F1       | 2624-3C  | MT/PT      |            | RHH-39...  |
| RPB-CC-28  | RHR-B    | 1    | C3.20    | STN       | 16     | 40        | P1       | 2624-3C  | MT/PT      |            | RHS-42...  |
| RPB-CC-32  | RHR-B    | 1    | C3.20    | LUG       | 16     | 40        | F1       | 2624-3C  | MT/PT      |            | RHH-40...  |
| RPD-CC-14  | RHR-B    | 1    | C3.20    | PLATE     | 20     | .375      | F1       | 2625-2   | MT/PT      |            | RHH-14...  |
| RPD-CC-19  | RHR-B    | 1    | C3.20    | E-H       | 16     | 40        | F1       | 2624-3C  | MT/PT      |            | RHH-38...  |
| RPD-CC-1A  | RHR-B    | 1    | C3.20    | P-PC      | 20     | 1.7/16    | P2       | CB&I-69  | MT/PT      |            | RPD-X-225D... X-225D<br>TORUS PEN, SUPPLY, RHR<br>'D' PMP SUCTION...                               |
| RPD-CC-34  | RHR-B    | 1    | C3.20    | IPS       |        |           | CS       | 2624-3C  | MT/PT      |            | RHH-41A...   |
| RBW-CE1-10 | RHR-B    | 1    | C3.20    | STN       |        |           | CS       | 2624-3B  | MT/PT      |            | RHS-39...  |
| RBW-CE1-11 | RHR-B    | 1    | C3.20    | IPS       | N/A    |           | CS       | 2624-3B  | MT/PT      |            | RHH-46...  |
| RBW-CE1-12 | RHR-B    | 1    | C3.20    | E-L       |        |           | CS       | 2624-3B  | MT/PT      |            | RHH-117A...  |
| RHD-CE1-11 | RHR-B    | 1    | C3.20    | IPS       |        |           |          | 2624-6   | MT/PT      |            | RHH-132...   |
| RHC-CE1-3  | RHR-B    | 1    | C3.20    | E-L       | N/A    |           | CS       | 2624-3B  | MT/PT      | 1          | RHH-42...  |
| RHC-CC-58  | RHR-B    | 1    | C3.20    | LUGS      | 24     | 30        | P1       | 2624-5   | MT/PT      | 2          | RHH-69...  |
|            |          | 82   | ***      |           |        |           |          |          |            |            |  |
| RHR-PC-A1  | RHR-A    | 1    | C3.30    | SP-PU     |        |           | CS       | 2624-1   | MT/PT      |            | RI-18 RHR-PC-S1... ALL<br>ATTACHMENT WELDS ON RHR<br>PMP-C, REFERENCE BINGHAM<br>PMP DWG Z-6363... |
| RHR-PA-A1  | RHR-A    | 1    | C3.30    | SP-PU     |        |           | CS       | 2624-1   | MT/PT      | 3          | RI-18 RPA-PA-S1... ALL<br>ATTACHMENT WELDS ON RHR<br>PMP-A, REFERENCE BINGHAM<br>PMP DWG Z-6363... |
| RHR-PB-A1  | RHR-B    | 1    | C3.30    | SP-PU     |        |           | CS       | 2624-3C  | MT/PT      |            | RI-18 RHR-PB-S1... ALL<br>ATTACHMENT WELDS ON RHR<br>PMP-B, REFERENCE BINGHAM<br>PMP DWG Z-6363... |
| RHR-PD-A1  | RHR-B    | 1    | C3.30    | SP-PU     |        |           | CS       | 2624-3C  | MT/PT      |            | RI-18 RHR-PD-S1... ALL<br>ATTACHMENT WELDS ON RHR<br>PMP-D, REFERENCE BINGHAM<br>PMP DWG Z-6363... |
|            |          | 4    | ***      |           |        |           |          |          |            |            |  |
| ***        |          | 88   |          |           |        |           |          |          |            |            |  |

CODE CASE N-509  
IWC-2500-1 CAT: C-C  
SCRAM DISCHARGE VOLUME SYSTEM

COOPER NUCLEAR STATION  
INSERVICE INSPECTION PROGRAM REV: 2  
THIRD INTERVAL

| PIPE.....  | SYSTEM.. | CNT. | ITEM.NO. | CFIG..... | SIZE.. | TKNS..... | MAT..... | ISO.....            | EXAMS..... | PER RELREQ | REMARKS.....   |
|------------|----------|------|----------|-----------|--------|-----------|----------|---------------------|------------|------------|----------------|
| SDS-CE1-21 | SDV      | 1    | C3.20    | HSL       | N/A    |           | CS       | S&W13095.19-EP-1B-2 | MT/PT      | 1          | RI-17 PSA-1... |
|            |          | 1    | ***      |           |        |           |          |                     |            |            |                |
| ***        |          | 1    |          |           |        |           |          |                     |            |            |                |

Attachment 3 to  
NLS980145  
1 Page Total

**Attachment 3**

**Drawing of Service Water Pump Discharge Head**



Service Water Pump  
(From Drawing B5800\*1F-6921)



