# NSP

# MONTICELLO NUCLEAR GENERATING PLANT


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INSERVICE INSPECTION-EXAMINATION SUMMARY
MONTICELLO NUCLEAR GENERATING PLANT - UNIT 1
FEBRUARY 21 TO MARCH 28, 1980

REFUELING OUTAGE NO. 7
INSPECTION PERIOD 3

**NORTHERN STATES POWER COMPANY**

REPORT DATE:
April 23, 1980

MINNEAPOLIS, MINNESOTA

COMMERCIAL SERVICE
DATE: JUNE 30, 1971

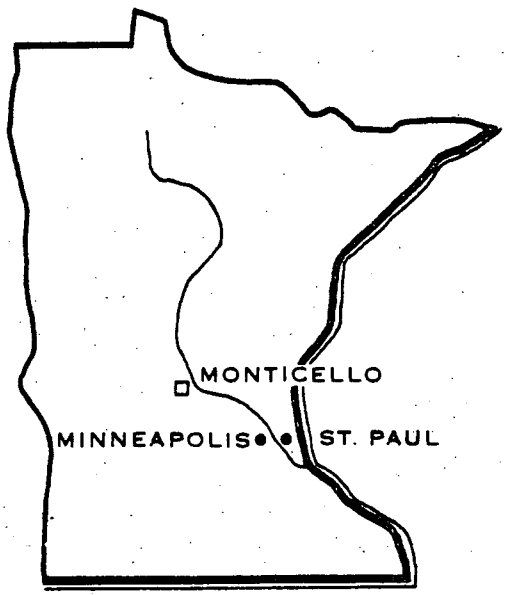
8005230267

# NSP

# MONTICELLO NUCLEAR GENERATING PLANT

## Monticello, Minnesota

UNIT I




INSERVICE INSPECTION-EXAMINATION SUMMARY
MONTICELLO NUCLEAR GENERATING PLANT - UNIT 1
FEBRUARY 21 TO MARCH 28, 1980

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NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATION PLANT - UNIT I

# INSERVICE INSPECTION-EXAMINATION SUMMARY
# MONTICELLO NUCLEAR GENERATING PLANT - UNIT 1
# FEBRUARY 21 TO MARCH 28, 1980

REFUELING OUTAGE NO. 7
INSPECTION PERIOD 3

April 23, 1980

Commercial Service
Date: June 30, 1971


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Ray W. Anderson, General
Superintendent Production Plant
Maintenance

INSERVICE INSPECTION - EXAMINATION SUMMARY

MONTICELLO NUCLEAR GENERATING PLANT - UNIT 1

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INSERVICE INSPECTION-EXAMINATION SUMMARY
MONTICELLO NUCLEAR GENERATING PLANT - UNIT 1
February 21 to March 28, 1980

## 1.0 INTRODUCTION

This report is a summary of the Monticello Nuclear Generating Plant's seventh inservice inspection. This was the second inservice inspection conducted in inspection period three. The examinations were preformed during the seventh refueling outage from February 21 to March 28, 1980. The Monticello Nuclear Generating Plant began commercial operation on June 30, 1971.

The examinations were preformed on pressure retaining components and their supports of the reactor coolant and associated auxiliary systems classified as ASME Class 1 and ASME Class 2. In addition, a visual examination was preformed on portions of the reactor vessel internal components.

Northern States Power Company contracted General Electric Company to perform the reactor vessel visual examination and Lambert, MacGill, Thomas, Inc. to preform the balance of plant examinations. Hartford Steam Boiler Inspection and Insurance Company, representing ANI, provided the Authorized Inspection.

## 2.0 DISCUSSION OF EXAMINATION PLAN

### 2.1 INSPECTION BOUNDARY

The examination plan focused on the pressure retaining components and their supports of the reactor coolant systems, portions of the emergency core coolant systems, and portions of the reactor coolant associated systems that are classified as ASME Class 1 and ASME Class 2.

The examination plan was based on the examination requirements of the ASME Boiler and Pressure Vessel Code Section XI, 1974 Edition through and including the Summer 1975 Addenda, and complied with Monticello's Technical Specification, Section TS4.6.1. The examination plan is in accordance with the program submitted to the United States Nuclear Regulatory Commission on March 15, 1978 entitled, "ASME Code Section XI Inservice Inspection and Testing Program and Information Required for NRC Review of Requests for Relief from ASME Code Section XI Requirements".

### 2.2 EXAMINATION PROCEDURES

A listing of the procedures used for the examinations is shown in Table III of Appendix C. The ultrasonic examination procedure for pipe welds complied with the requirements of Appendix III of ASME Section XI that was issued in the Winter 1975 Addenda. All the other examination procedures

complied with the requirements of the 1974 Edition through and including the Summer 1975 Addenda of ASME Section XI.

2.3 EXAMINATION METHODS

Ultrasonic examination methods and techniques were used to perform volumetric examinations. The ultrasonic test system consisted of an ultrasonic digital analog tester and a two channel strip chart recorder. One channel of the recorder was calibrated to reflect the ultrasonic screen height (amplitude) and the second channel was calibrated to reflect the metal path (range) to the reflector. This approach gives a permanent record of the examination to the extent possible.

Surface examinations were performed by liquid penetrant or magnetic particle techniques. The liquid penetrant examinations were performed using the color contrast-solvent removable method, Magnetic Particle examinations were performed using a yoke and dry magnetic powder.

All visual examinations were aided when necessary with artificial lighting and verified for adequacy with an 18% neutral gray card with a 1/32 inch black line. Both hot and cold hanger load settings were visually verified (when applicable) and recorded on the report along with the piping system temperature.

2.4 EQUIPMENT AND MATERIALS

All equipment and expendable materials used in the examination are listed by either serial number or type along with the respective calibration date or batch number in Table IV of Appendix C.

The ultrasonic calibration standards used in the examination are listed in Table II of Appendix C. These standards are owned and maintained by NSP at the plant site.

2.5 PERSONNEL

All personnel involved in the performance or evaluation of examinations are listed along with their title, organization, and ASNT Level of certification in Table I of Appendix C.

Qualification records for examination personnel are maintained on file by Northern States Power Company.

2.6 EVALUATION

Any indications disclosed in the examinations were evaluated by the examiner at that time, in accordance with the rules of the procedure and ASME Section XI.

The ultrasonic examiner was aided in his evaluation by a calibration performed on a standard reference before each day's examination and checked before and after each individual examination and at intervals not exceeding four (4) hours.

In addition, the ultrasonic data was recorded on strip charts which were made a part of the inspection report and permitted further evaluation.

2.7 EXAMINATION REPORTS AND DOCUMENTATION

All examination reports and documentation are maintained on file by Northern States Power Company. Table I of Appendices A and B identifies the examination report number(s) for each item examined. Many of the items identify more than one examination report because of the different types of examination performed on the item.

Table I of Appendix A and B summarizes all the examinations that have been performed to date and identifies the amount that will be examined in the future to complete the ten year examination requirement. For retrieval purposes, the prefix of the inspection report number corresponds with the year that the inspection was performed. The examination report numbers for this outage are prefixed with "80-".

Table II of Appendix A and B compares the baseline examination results with the results obtained during this examination. Table III of Appendix A and B identifies the isometric drawings that were used for the examinations. The personnel, ultrasonic calibration blocks, procedures, equipment and materials that were used for the inspection are identified in the tables of Appendix C. Appendix D contains the Form NIS-1, entitled "Owners' Data Report for Inservice Inspections".

2.8 SUMMARY OF RESULTS

There were no signs of degradation to the systems scheduled for examination. The only anomalies detected were: two linear MT indications on Feedwater A base metal adjacent to weld FWAJ-40, two linear PT indications, one on Core Spray A weld CSAF-2, and one on Control Rod Drive Nozzle to Cap weld CRAF-2; loose bolts on hangers RBAK-10 on Recirculation Bypass A, and MSAK-45 on Mainsteam A; loose nuts on hangers MSBK-17 on Mainsteam B, CSBK-6 on Core Spray B, RBBK-14 on Recirculation Bypass B, CDAK-37 on CRD Scram Header A, and CWAK-15 on Reactor Water Clean Up; one missing support block on hanger SWAK-54 RHR Service Water; and two hangers that did not conform with the hanger drawings; RWAK-14 on Reactor Water Skimmer line that also had a loose nut, and RHAK-22 on Residual Heat Removal Suction line.

All anomalies were corrected. The linear MT indications on Feedwater A base metal were removed by lightly grinding the surface. The two linear PT indications on Core Spray A and Control Rod Drive were removed by lightly buffing the surface. The loose nuts on Mainsteam B, Core Spray B, Reactor Water Clean Up, Recirculation Bypass B and CRD Scram Header A hangers were tightened. The loose bolts on Recirculation Bypass A and Mainsteam A hangers were tightened. The missing support block

on RHR Service Water hanger was replaced. The non-conforming hanger on Residual Heat Removal suction line was reviewed and the hanger drawings and hanger Mark No. were found to be out of sequence. The hanger drawings will be revised to reference the correct hanger Mark No. The non-conforming hanger on Reactor Water Skimmer was reevaluated and found adequate for the designed load, and the loose nut was tightened. All indications were corrected and re-examined with the same method that originally located them.

## 3.0 VISUAL EXAMINATION OF THE REACTOR VESSEL INTERNALS

A visual examination was performed on portions of the reactor vessel internal components using an underwater TV camera and a video recording system. The examinations were performed in accordance with Northern States Power Company Procedure No. NSP-VT-4, Revision 0.

The examination procedure delineated the scope of the program and contained a separate appendix for each area to be examined. Each of the appendices contained check off lists that the examiners used during the examinations to identify each area examined and, if any, the abnormal conditions that were found.

The examination program focused on the Core Spray and Feedwater sparger systems, and the Jet Pump upper assembly. The Core Spray sparger examinations included the tee junction box, piping, header brackets and reclad areas, sparger piping and nozzles, mounting brackets, and the shroud penetrations. The Feedwater sparger examinations consisted of the sparger piping and welds, end brackets and reclad areas, bearing bar brackets and bolting, and the inner radius of the vessel at each nozzle location. The examination area on each jet pump included the beam bolt keeper and tack welds, lock plate, hold down beam, inlet and the upper section of the transition piece.

General Electric Company was contracted to supply personnel to perform the examinations. There were two certified Level II visual inspectors on each shift. One of the inspectors was on the refueling bridge and the other was at the recording station. The video recording system was used to permanently document any abnormalities noted during the examination and also to record the calibrations.

The only abnormality detected during the examinations was one end bracket pin on Feedwater sparger B was found to be not properly seated and the keeper bar was bent. A thorough examination of this area revealed no apparent signs of wear or damage to any portion of the end bracket or pin. The pin was reseated against the end bracket, and the keeper bar was repositioned in place. A tape

recording was made during the reseating process and after to verify that the pin and keeper bar was seated properly and to examine the keeper bar weld.

All examination reports and documentation are maintained on file by Northern States Power Company in a separate report.

# APPENDIX A

## ASME CLASS 1 - EXAMINATION

NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION–EXAMINATION SUMMARY

TABLE S1.1
PAGE 1 OF 12
MAJOR ITEM: REACTOR VESSEL

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| B1.1 | B-A | LONGITUDINAL AND CIRCUM-FERENTIAL WELDS IN CORE REGION | | | | | |
| | | LONGITUDINAL WELDS<br>VLAA-1<br>VLAA-2<br>VLBA-1<br>VLBA-2 | – | – | – | -RELIEF NO. 15- | |
| | | CIRCUMFERENTIAL WELDS<br>VCBA-2 | – | – | – | -RELIEF NO. 15- | |
| B1.2 | B-B | LONGITUDINAL AND CIRCUM-FERENTIAL WELDS IN SHELL (OTHER THAN THOSE OF CATEGORY B-A AND B-C) AND MERIDIONAL AND CIRCUMFERENTIAL SEAM WELDS IN BOTTOM HEAD AND CLOSURE HEAD (OTHER THAN THOSE OF CATEGORY B-C) | | | | | |
| | | SHELL | | | | | |
| | | LONGITUDINAL WELDS<br>VLAA-1<br>VLAA-2 | – | – | – | -RELIEF NO. 15- | |
| | | VLCB-1<br>VLCB-2 | – | – | – | -RELIEF NO. 16- | |
| | | VLBA-1<br>VLBA-2 | – | – | – | -RELIEF NO. 16- | TOP 15" OF WELD NOT IN CORE REGION |

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|---|---|---|---|---|---|---|---|
| B1.2 | B-B | (CONT'D) | | | | | |
| | | VLDB-1 | ONE | 18% | 18% | VLDB-1 (TOP 24") | 74-136 |
| | | | TWO | - | - | | |
| | | | THREE | 25% | - | | |
| | | VLDB-2 | ONE | - | - | | |
| | | | TWO | 43% | 43% | VLDB-2 (TOP 57") | 75B-87,88,109 |
| | | | THREE | - | - | | |
| | | CIRCUMFERENTIAL WELDS | | | | | |
| | | VCBB-1 | - | - | - | -RELIEF NO. 15- | |
| | | VCBB-3 | - | - | - | -RELIEF NO. 15- | |
| | | VCBB-4 | - | - | - | -RELIEF NO. 16- | |
| | | CLOSURE HEAD | | | | | |
| | | MERIONAL WELDS | | | | | |
| | | HMCB-1 | ONE | 21% | 21% | HMCB-1 (1.5') | 74-30 |
| | | | TWO | 100% | 100% | HMCB-1 (7.0') | 75B-30,72,75 |
| | | | THREE | - | - | | |
| | | HMCB-2 | ONE | 21% | 21% | HMCB-2 (1.5') | 74-81 |
| | | | TWO | - | - | | |
| | | | THREE | - | - | | |
| | | HMCB-3 | ONE | - | - | | |
| | | | TWO | 100% | 100% | HMCB-3 (7.0') | 75B-31,71,78 |
| | | | THREE | - | - | | |
| | | HMCB-4 | ONE | - | - | | |
| | | | TWO | - | - | | |
| | | | THREE | 100% | - | | |

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|---|---|---|---|---|---|---|---|
| B1.2 | B-B | (CONT'D) | | | | | |
| | | HMCB-5 | ONE | - | - | | |
| | | | TWO | 100% | 100% | HMCB-5 (7.0') | 75B-32,70,77 |
| | | | THREE | - | - | | |
| | | HMCB-6 | ONE | - | - | | |
| | | | TWO | - | - | | |
| | | | THREE | 100% | - | | |
| | | CIRCUMFERENTIAL WELD HCCB-2 | ONE | - | - | | |
| | | | TWO | 100% | 100% | HCCB-2 (25') | 75B-68,74,76 |
| | | | THREE | - | - | | |
| | | BOTTOM HEAD | | | | | |
| | | MERIONAL WELDS | | | | | |
| | | HMAB-1 | - | - | - | -RELIEF NO. 16- | |
| | | HMAB-2 | - | - | - | - | |
| | | HMAB-3 | - | - | - | - | |
| | | HMAB-4 | - | - | - | - | |
| | | HMAB-5 | - | - | - | - | |
| | | HMAB-6 | - | - | - | - | |
| | | HMAB-7 | - | - | - | - | |
| | | HMAB-8 | - | - | - | - | |
| | | MERIONAL WELDS THRU DOLLAR PLATE ASSEMBLY | | | | | |
| | | HMAB-9 | - | - | - | -RELIEF NO. 16- | |
| | | HMAB-10 | - | - | - | - | |

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TABLE S1.1
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|---|---|---|---|---|---|---|---|
| B1.2 | B-B | (CONT'D) | | | | | |
| | | CIRCUMFERENTIAL WELD - DOLLAR PLATE HCAB-1 | ONE | 5% | 5% | 2.2', 0-18° | 74-67 |
| | | | TWO | - | - | | |
| | | | THREE | 5% | - | | |
| B1.3 | B-C | VESSEL-TO-FLANGE AND HEAD-TO-FLANGE CIRCUM-FERENTIAL WELDS | | | | | |
| | | VESSEL TO FLANGE VCBC-5 | ONE | 33% | 40% | STUD HOLE, 64-14 & STUD HOLE, 12-22 | 73-126 74-146 |
| | | | TWO | 34% | 36% | STUD HOLE, 21-36 & STUD HOLE, 36-43 | 75B-16 77-159 |
| | | | THREE | 33% | - | | |
| | | HEAD TO FLANGE HCCC-1 | ONE | 33% | 37% | STUD HOLE, 64-13 & STUD HOLE, 13-22 | 73-47 74-18 |
| | | | TWO | 67% | 67% | STUD HOLE, 22-1 & STUD HOLE, 36-43 | 75B-29,73,79 77-92,93 |
| | | | THREE | 33% | - | | |
| B1.4 | B-D | PRIMARY NOZZLE-TO-VESSEL WELDS AND NOZZLE INSIDE RADIUSED SECTION | | | | | |
| | | -CLOSURE HEAD- HEAD VENT (N7) | ONE | 100% | 100% | HVAD-1 | 73-049,050 |
| | | HEAD SPRAY (N6A) | ONE | 100% | 100% | RHDD-1 | 73-051,054 |
| | | HEAD SPARE (N6B) | THREE | 100% | - | | |
| | | -BOTTOM HEAD- STANDBY LIQUID CONTROL (N10) | TWO | *- | PARTIAL | -RELIEF NO. 15- | 75A-10B *To extent possible |

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TABLE S1.1
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|---|---|---|---|---|---|---|---|
| B1.4 | B-D | (CONT'D) | | | | | |
| | | -VESSEL SHELL- | | | | | |
| | | MAIN STEAM A (N3A) | ONE | 100% | 100% | MSAD-1 | 74-77,78 |
| | | MAIN STEAM B (N3B) | THREE | 100% | 100% | MSBD-1 | 80-118,121,123,138,141 |
| | | MAIN STEAM C (N3C) | TWO | 100% | 100% | MSCD-1 | 75B-89,90,105,111 |
| | | MAIN STEAM D (N3D) | THREE | 100% | 100% | MSDD-1 | 80-191,122,124,139,140 |
| | | FEEDWATER A (N4A) | ONE | 100% | 100% | FWAD-1 | 74-91,92 |
| | | FEEDWATER B (N4B) | TWO | 100% | 100% | FWBD-1 | 75B-122 |
| | | FEEDWATER C (N4C) | TWO | 100% | 100% | FWCD-1 | 75B-91,92,93,110 |
| | | FEEDWATER D (N4D) | THREE | 100% | 100% | FWDD-1 | 80-74,77,85,93,95 |
| | | | | | | | AUGMENTED EXAMS (75B) (77) (80) |
| | | | | | | FWAD-1 | 123 222,221 177,178 |
| | | | | | | FWBD-1 | 122 217,218 69,78 |
| | | | | | | FWCD-1 | 121 214,215, 216 154,155 |
| | | | | | | FWDD-1 | 120 219,220 – |
| | | CORE SPRAY A (N5A) | THREE | 100% | 100% | CSAD-1 | 80-73,76,86,92,94 |
| | | CORE SPRAY B (N5B) | TWO | 100% | 100% | CSBD-1 | 75A-85,109 |
| | | CONTROL ROD DRIVE HYDRAULIC RETURN (N9) | ONE | 100% | 100% | CRAD-1 | 74-79,80 |
| | | | TWO | 100% | 100% | CRAD-1 | 77-223 |
| | | RECIRCULATION OUTLET A (N1A) | ONE | 100% | 100% | RCAD-1 | 73-69,70 |
| | | RECIRCULATION OUTLET B (N1B) | ONE | 100% | 100% | RCBD-1 | 74-69,74 |
| | | | THREE | 100% | – | | |

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|---|---|---|---|---|---|---|---|
| B1.4 | B-D | (CONT'D) | | | | | |
| | | RECIRCULATION INLET NOZZLES | | | | | |
| | | INLET A (N2A) | ONE | 100% | 100% | RRAD-1 | 74-76,109 |
| | | INLET D (N2D) | ONE | 100% | 100% | RRDD-1 | 73-71,76 |
| | | INLET J (N2J) | ONE | 100% | 100% | RRJD-1 | 73-80,81 |
| | | INLET C (N2C) | TWO | 100% | 100% | RRCD-1 | 75A-98,110 |
| | | INLET E (N2E) | TWO | 100% | 100% | RRED-1 | 77-205,207 |
| | | INLET G (N2G) | TWO | 100% | 100% | RRGD-1 | 75A-99,107,123 |
| | | INLET B (N2B) | THREE | 100% | 100% | RRBD-1 | 78-88,94,99,103 |
| | | INLET F (N2F) | THREE | 100% | 100% | RRFD-1 | 78-90,97,98,101 |
| | | INLET H (N2H) | THREE | 100% | 100% | RRHD-1 | 78-89,96,100,106 |
| | - | INLET K (N2K) | THREE | 100% | 100% | RRKD-1 | 78-91,95,102,107 |
| | | JET PUMP INSTRUMENT NOZZLES | | | | | |
| | | NOZZLE A (N8A) | ONE | 100% | 100% | JPAD-1 | 74-70,75 |
| | | NOZZLE B (N8B) | THREE | 100% | - | | |
| B1.5 | B-E | VESSEL PENETRATIONS, INCLUDING CONTROL ROD DRIVE AND INSTRUMENTATION PENETRATIONS | | | | | |
| | | CONTROL ROD DRIVE PENETRATIONS (TOTAL 121) | - | - | - | *-RELIEF NO. 17- | *INSPECTED BY PLANT PERSONNEL DURING EACH REACTOR VESSEL LEAKAGE TEST |

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MAJOR ITEM: REACTOR VESSEL

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|---|---|---|---|---|---|---|---|
| B1.5 | B-E | (CONT'D) | | | | | |
| | | INSTRUMENTATION PENETRATIONS | ONE | – | | | |
| | | (TOTAL 4) | TWO | – | – | | |
| | | | THREE | 25% | – | | |
| | | REACTOR VESSEL BOTTOM HEAD DRAIN (N15) | – | – | – | -RELIEF NO. 17- | |
| | | REACTOR VESSEL CLOSURE HEAD FLANGE LEAKAGE SENSORS | | | | | |
| | | (N-13) | – | – | – | -RELIEF NO. 18- | |
| | | (N-14) | – | – | – | | |
| B1.6 | B-F | NOZZLE TO SAFE END WELDS | | | | | |
| | | -CLOSURE HEAD- | | | | | |
| | | HEAD VENT (N7) | ONE | 100% | 100% | HVAF-2 | 73-053,057 |
| | | HEAD SPRAY (N6A) | ONE | 100% | 100% | RHDF-2 | 73-052,056 |
| | | HEAD SPARE (N6B) | ONE | 100% | PARTIAL | HSBF-2 | 73-055 |
| | | HEAD SPARE (N6B) | THREE | 100% | – | | |
| | | -BOTTOM HEAD- | | | | | |
| | | STANDBY LIQUID CONTROL (N10) | THREE | 100% | – | | *BEST EFFORT -RELIEF NO. 19- |
| | | -VESSEL SHELL- | | | | | |
| | | CORE SPRAY A (N5A) | TWO | 100% | 100% | CSAF-2 | 77-299,128 |
| | | | THREE | 100% | 100% | CSAF-2 | 80-64,64R,175,175A |
| | | CORE SPRAY B (N5B) | TWO | 100% | 100% | CSBF-2 | 75A-104/77-137,139 |
| | | | THREE | 100% | 100% | CSBF-2 | 80-56, 176, 76A |

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MAJOR ITEM: REACTOR VESSEL

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| B1.6 | B-F | (CONT'D) | | | | | |
| | | CONTROL ROD HYDRAULIC RETURN (N9) | TWO | 100% | 100% | CRAF-2 | 74-90,93 |
| | | | TWO | 100% | 100% | BASELINE (CAPPED) | 77-224 |
| | | | THREE | 100% | 100% | CRAF-2 | 80-167,167R,181 |
| | | RECIRCULATION OUTLET A (N1A) | ONE | 100% | 100% | RCAF-2 | 73-72,78 |
| | | RECIRCULATION OUTLET B (N1B) | ONE | 100% | 100% | RCBF-2 | 74-71,73 |
| | | | THREE | 100% | - | | |
| | | RECIRCULATION INLET | | | | | |
| | | INLET A (N2A) | ONE | 100% | 100% | RRAF-2 | 74-89,116 |
| | | INLET D (N2D) | ONE | 100% | 100% | RRDF-2 | 73-75,77 |
| | | INLET J (N2J) | ONE | 100% | 100% | RRJF-2 | 73-74,82 |
| | | INLET C (N2C) | TWO | 100% | 100% | RRCF-2 | 75A-102/75B-105 |
| | | INLET E (N2E) | TWO | 100% | 100% | RREF-2 | 77-204,209 |
| | | INLET G (N2G) | TWO | 100% | 100% | RRGF-2 | 75A-103/75B-112 |
| | | INLET B (N2B) | THREE | 100% | 100% | RRBF-2* | 78-75,123 |
| | | INLET F (N2F) | THREE | 100% | 100% | RRFF-2* | 78-79,121 |
| | | INLET H (N2H) | THREE | 100% | 100% | RRHF-2* | 78-78,122 |
| | | INLET K (N2K) | THREE | 100% | 100% | RRKF-2* | 78-76,124 |
| | | | | | | | *NOTE: THE ENTIRE SAFE END WAS UT EXAMINED IN 1978; INCLUDING THE SAFE END TO PIPE WELD. |
| | | JET PUMP INSTRUMENTATION | | | | | |
| | | NOZZLE A (N8A) | ONE | 100% | 100% | JPAF-2 | 74-84,88 |
| | | NOZZLE B (N8B) | THREE | 100% | - | | |

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| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| B1.6 | B-F | (CONT'D) | | | | | |
| | | INSTRUMENTATION | | | | | |
| | | LINES | | | | | |
| | | V1AF-2 (N11A) | THREE | 100% | - | | |
| | | V1BF-2 (N11B) | THREE | 100% | - | | |
| | | V1CF-2 (N12A) | THREE | 100% | - | | |
| | | V1DF-2 (N12B) | THREE | 100% | - | | |
| B1.7 AND B1.8 | B-G-1 | CLOSURE STUDS | ONE | 33% | 36% | STUDS, 1 THRU 13 | 73-123,124 (VT) (UT) |
| | B-G-2 | | | | | STUDS, NO. 64,1, 16,17,32,33,47, 48,49,50 | 74-63,64 (UT) (PT) |
| | | | TWO | 33% | 36% | STUDS, NO. 14,15, 18,19,31,45 THRU 52,54,62,63 | 75A-61,88 (MT) (UT) |
| | | | | | | STUDS, NO. 36 THRU 42 | 77-81,110 (MT) (UT) |
| | | | THREE | 34% | - | | |
| | | AND NUTS | ONE | 33% | 36% | NUTS, 1 THRU 13 | 73-61,66 (VT) (UT) |
| | | | | | | NUTS, NO. 64,1, 16,17,32,33,47, 48,49,50 | |
| | | | TWO | 33% | 100% | NUTS, 1 THRU 64 | 77-158,94 (MT) (UT) |
| | | | THREE | 34% | - | | |

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MAJOR ITEM: REACTOR VESSEL

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| B1.9 | B-G-1 | LIGAMENTS BETWEEN THREADED STUD HOLES | | | | AT STUDS HOLES: | |
| | | | ONE | 33% | 37% | 1 THRU 13 (AND) 12 THRU 22 | 73-48,125 74-66 |
| | | | TWO | 33% | 36% | 21 THRU 35 (AND) 36 THRU 43 | 75B-15 77-160 |
| | | | THREE | 34% | - | | |
| B1.10 | B-G-1 | CLOSURE WASHERS | | | | WASHER PAIRS: | |
| | | | ONE | 33% | 100% | 1 THRU 64 | 73-61,67/74-62 |
| | | | TWO | 33% | 100% | 1 THRU 64 | 77-82 |
| | | | THREE | 34% | - | | |
| B1.11 | B-G-2 | PRESSURE-RETAINING BOLTING* | | | | | (FLANGE BROKEN WHEN CLOSURE HEAD REMOVED) |
| | | HEAD VENT (N7) | ONE | 8 | 100% | | 74-142 |
| | | | THREE | 8 | - | | |
| | | HEAD SPARY (N6A) | TWO | 8 | 100% | | 74-142 |
| | | | THREE | 8 | - | | |
| | | HEAD SPARE (N6B) | THREE | 8 | - | | |
| B1.12 | B-H | INTEGRALLY WELDED VESSEL SUPPORTS | | | | | |
| | | SUPPORT SKIRT HCAH-2 | ONE | 5% | 5% | HCAH-2 (5'8") | 74-65 |
| | | | THREE | 5% | - | - | |
| | | VESSEL STABILIZER LUGS | THREE | * | - | -RELIEF NO. 16- | *ACCESSIBLE AREAS WITH SURFACE EXAM |
| B1.13 | B-I-1 | CLOSURE HEAD CLADDING | | | | | |
| | | | ONE | 33% | 33% | 2-36 $IN^2$ PATCHES | 73-INVESSEL RPT |
| | | | ONE | - | 33% | 2-36 $IN^2$ PATCHES | 74-RPV INTERNALS RPT |
| | | | TWO | 33% | 100% | ALL HEAD CLADING VISUAL ONLY | 77-RPV INTERIOR RPT |
| | | 2-36 Square Inch Patches | THREE | 33% | - | - | -RELIEF NO. 20- |

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|---|---|---|---|---|---|---|---|
| B1.14 | B-I-1 | VESSEL CLADDING<br>2-36 Square Inch Patches | ONE<br>ONE<br>TWO<br>THREE | 33%<br>33%<br>33%<br>33% | 33%<br>33%<br>33%<br>– | 2-36 $IN^2$ PATCHES<br>2-36 $IN^2$ PATCHES<br>(SEE RPT FOR AREA) | 73-INVESSEL RPT<br>74-RPV INTERNALS RPT<br>77-RPV INTERIOR RPT |
| B1.15 | B-N-1 | VESSEL INTERIOR | ONE<br>ONE<br>TWO<br>THREE | *<br>*<br>*<br>* | *<br>*<br>*<br>– | *SPACE ABOVE AND BELOW THE REACTOR CORE THAT IS MADE ACCESSIBLE FOR EXAMINATION BY THE REMOVAL OF COMPONENTS DURING NORMAL REFUELING OUTAGE | 73-INVESSEL RPT<br>74-RPV INTERNALS RPT<br>77-RPV INTERIOR RPT<br>80-RPV INTERNALS RPT (PARTIAL) |
| B1.16 | B-N-2 | INTERIOR ATTACHMENTS AND CORE SUPPORT STRUCTURES | ONE<br>ONE<br>TWO<br>THREE | *<br>*<br>*<br>* | *<br>*<br>*<br>– | *VISUALLY ACCES-SIBLE ATTACHMENTS AND SUPPORTS | 73-INVESSEL RPT<br>74-INTERNALS RPT<br>77-RPV INTERIOR RPT<br>80-RPV INTERNALS RPT (PARTIAL) |
| B1.17 | B-N-3 | CORE SUPPORT STRUCTURES | – | – | – | NOT APPLICABLE | – |
| B1.18 | B-0 | CONTROL ROD DRIVE HOUSINGS<br>(24 PERIPHERAL HOUSING WELDS) | ONE | 10% | * | CRD NO.*<br>02-23<br>10-43<br>22-27<br>22-31<br>26-27<br>14-27<br>38-23<br>14-15<br>34-11 | <br>73-085<br>73-086<br>73-108<br>73-109<br>73-110<br>73-121<br>74-102<br>74-103<br>74,108 |

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|---|---|---|---|---|---|---|---|
| B1.18 | B-O | (CONT'D) | | | | CRD NO.* | |
| | | | TWO | | * | 38-19 | 75A-91 |
| | | | | - | | 34-33 | 75A-92 |
| | | | | | | 38-35 | 75A-93 |
| | | | | | | 18-39 | 75A-94 |
| | | | | | | 14-19 | 75A-95 |
| | | | | | | 22-19 | 75A-96 |
| | | | THREE | 3 | - | | |
| B1.19 | B-P | EXEMPTED COMPONENTS | | | | | |
| | | CLOSURE FLANGE SENSORS<br>VFAE-1<br>VABE-1 | THREE | * | - | *HYDROSTATICALLY PRESSURE TESTED TO IWA-5000 AND IWB-5000 AT END OF TEN YEAR PERIOD PLUS SYSTEM LEAKAGE EXAM EACH SCHEDULED RE-FUELING OUTAGE | -PLANT PERSONNEL--RELIEF NO. 18- |

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PP12-3-12

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MAJOR ITEM: PRESSURIZERS

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| B2.0 | - | PRESSURIZER | - | - | - | -NOT APPLICABLE- | |

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MAJOR ITEM: HEAT EXCHANGER/STM. GEN.

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO |
|---|---|---|---|---|---|---|---|
| B3.0 | - | HEAT EXCHANGERS AND STEAM GENERATORS | - | - | - | -NOT APPLICABLE- | |

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FORM 17-25A

PP12-A-15

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MAJOR ITEM: PIPING PRESSURE BOUNDARY

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| B4.1 | B-F | SAFE END TO PIPING AND SAFE END IN BRANCH PIPING WELDS | | | | | -RELIEF NO. 21- |
| | | CORE SPRAY A | | | | | *REPORT NUMBERS |
| | | CSAF-10 | ONE | 1 | 1* | | (73-)(75A-)(75B-)(77-) (80-) |
| | | CSAF-14 | TWO | 3 | 3* | CSAF-10 | 95 70 24 131,178 71,103 |
| | | CSAF-18 | THREE | 3 | 3* | CSAF-14 | 74 25 132,178 72,88 |
| | | | | | | CSAF-18 | 76 28 134,135, 178 70,89 |
| | | CORE SPRAY B | | | | | *REPORT NUMBERS |
| | | CSBF-9 | ONE | – | – | | (75A-)(75B-)(77-) (80) |
| | | CSBF-12 | TWO | 3 | * | CSBF-9 | 81 6 144 59,66 |
| | | CSBF-16 | THREE | 1 | * | CSBF-12 | 80 7 145 |
| | | | | | | CSBF-16 | 79 10 167,149 |
| | | HIGH PRESSURE COOLANT INJECTION-STEAM | ONE | 1 | 2 | PSAF-2B,2C (UT) | 74-15,16 |
| | | | TWO | – | – | | |
| | | PSAF-2B | THREE | 1 | 1 | PSAF-2B | 78-29,55 |
| | | PSAF-2C | THREE | 1 | 1 | PSAF-2C | 78-29,53 |
| | | REACTOR WATER CLEAN UP | ONE | – | – | | |
| | | CWAF-2 | TWO | 1 | 1 | CWAF-2 (2) | 75A-60,66/77-36,58 |
| | | | THREE | – | – | | |
| | | RESIDUAL HEAT REMOVAL | ONE | 1 | 1 | RHAF-4 | 73-63 |
| | | REW-10 | TWO | 1 | 1 | RHAF-4(REPEAT) | 77-171,176 |
| | | RHAF-4 | THREE | – | – | | |

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MAJOR ITEM: PIPING PRESSURE BOUNDARY

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| B4.1 | B-F | (CONT'D) | | | | | |
| | | RESIDUAL HEAT REMOVAL TW-20 | | | | | |
| | | RHBF-4 | TWO | 1 | 1 | RHBF-4 | 77-175/187 |
| | | RHBF-20 | THREE | 1 | 1 | RHBF-20 | 80-79,106 |
| | | RHBF-24 | THREE | 1 | 1 | RHBF-24 | 80-82,105 |
| | | RESIDUAL HEAT REMOVAL TW-30 | | | | | |
| | | RHCF-20 | ONE | 1 | 1 | RHCF-20 (2) | 73-87/74-96,110,119 |
| | | RHCF-23 | ONE | 1 | 1 | RHCF-23 (2) | 73-88/74-97,111,120 |
| | | RHCF-4 | TWO | 1 | 1 | RHCF-4 | 77-184,188 |
| | | RHCF-20 | THREE | 1 | 1 | RHCF-20(REPEAT) | 80-81,104 |
| B4.2 B4.3 B4.4 | B-G-1 | PRESSURE RETAINING BOLTS AND STUDS | - | - | - | -NONE- | - |
| B4.5 | B-J | CIRCUMFERENTIAL AND LONGITUDINAL WELDS | | | | | -RELIEF NO.21 |
| | | LONGITUDINAL WELDS | - | - | - | AS REQUIRED, IN CONJUNCTION WITH CIRCUMFERENTIAL WELDS | |
| | | CIRCUMFERENTIAL WELDS | | | | | |
| | | MAIN STEAM A, (18") | ONE | 4 | 4 | MSAJ-43,36,34/12 | 73-2,28,29/74-43 |
| | | | TWO | 2 | 2 | MSAJ-2,3 | 77-74,75 |
| | | | THREE | 2 | - | | |
| | | (6") | ONE | 3 | 3 | MSAJ-20,27,16 | 74-7,9,10 |
| | | | TWO | - | - | | |
| | | | THREE | 1 | 1 | MSAJ-24 | 80-198 |

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| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| B4.5 | B-J | (CONT'D) | | | | | |
| | | MAIN STEAM B (18") | ONE | 5 | 5 | MSBJ-40,31,33 | 73-1,20,21 |
| | | | | | | MSBJ-25,9 | 74-49,52 |
| | | | TWO | 2 | 2 | MSBJ-4,12 | 77-76,70,68 |
| | | | THREE | 3 | 1 | MSBJ-30 | 80-107 |
| | | (6") | ONE | 2 | 2 | MSBJ-15,21 | 74-8,11 |
| | | | TWO | - | - | | |
| | | | THREE | - | - | | |
| | | MAIN STEAM C (18") | ONE | 8 | 8 | MSCJ-41,31,33, 13,36,38 | 73-4,17,19,105,23,22 |
| | | | | | | MSCJ-25,12,33 | 74,41,42,51 |
| | | | TWO | 2 | 2 | MSCJ-3,2 | 75B-94,95 |
| | | | THREE | 3 | 3 | MSCJ-4,11,23 | 80-131,109,108 |
| | | (6") | ONE | 2 | 2 | MSCJ-21,16 | 74-2,4 |
| | | | TWO | - | - | | |
| | | | THREE | - | - | | |
| | | MAIN STEAM D (18") | ONE | 5 | 5 | MSDJ-45,38,36 | 73-3,22,23 |
| | | | | | | MSDJ-12,30 | 74-31,37 |
| | | | TWO | 2 | 2 | MSDJ-9,11 | 77-77,69 |
| | | | THREE | 2 | 2 | MSDJ-3,10 | 80-125,113 |
| | | (6") | ONE | 3 | 3 | MSDJ-28,21,17 | 74-3,5,12 |
| | | | TWO | 1 | 1 | MSDJ-23 | 77-80 |
| | | | THREE | 1 | - | MSDJ-28(REPEAT) | 80-199 |
| | | FEEDWATER A (10") | ONE | 1 | 1 | FWAJ-16 | 74-101 |
| | | | TWO | 1 | 1 | FWAJ-11 | 77-95 |
| | | | THREE | 1 | - | | |

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|---|---|---|---|---|---|---|---|
| B4.5 | B-J | (CONT'D) | | | | | |
| | | FEEDWATER B (10") | ONE | – | – | | |
| | | | TWO | 3 | 3 | FWBJ-2 | 77-154,208 |
| | | | | | | FWBJ-9,12 | 77-84,96 |
| | | | THREE | 1 | – | | |
| | | FEEDWATER A (14") | ONE | 5 | 5 | FWAJ-35,27,25,30 | 73-13,26,27,30 |
| | | | | | | FWAJ-24 | 74-28 |
| | | | TWO | 1 | 1 | FWAJ-19 | 77-180 |
| | | | THREE | 1 | – | | |
| | | FEEDWATER C (10") | ONE | – | – | | |
| | | | TWO | 2 | 2 | FWCJ-2,3 | 75B-96,97 |
| | | | THREE | 1 | – | | |
| | | FEEDWATER D (10") | ONE | 1 | 1 | FWDJ-16 | 74-27 |
| | | | TWO | 1 | 1 | FWDJ-18 | 77-97 |
| | | | THREE | 1 | – | | |
| | | FEEDWATER D (14") | ONE | 5 | 5 | FWDJ-35,25,26, 30,24 | 73-14,24,25,33,89 |
| | | | | | | FWDJ-24,25,26 | 74-24A,25,26 |
| | | | TWO | 1 | 1 | FWDJ-22 | 77-181 |
| | | | THREE | 1 | – | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B4.5 | B-J | (CONT'D) | | | | | | | | | | |
| | | | | | | | | | | *REPORT NUMBERS | | |
| | | | | | | | (73) | (74) | (75A) | (75B) | (77) | (80) |
| | | | | | | CSAJ-2A | | | 73 | 11 | 129,200 | 168,168A |
| | | | | | | CSAJ-3 | | | 72 | 19,82 | 138 | 87 |
| | | CORE SPRAY A | ONE | 5 | 5* | CSAJ-4 | | | 69 | 20 | 124 | 90 |
| | | | | | | CSAJ-5 | | | 64 | 21 | 164 | 91 |
| | | | TWO | 6 | 8* | CSAJ-8 | | | 66 | 22 | 123 | 67 |
| | | | THREE | 1 | 7* | CSAJ-9 | | | 75 | 23 | 125 | 68 |
| | | | | | | CSAJ-11 | 96 | | | | | |
| | | | | | | CSAJ-12 | 97 | | | | | |
| | | | | | | CSAJ-13 | | | | | | 83 |
| | | | | | | CSAJ-16 | 98 | | 18 | 26 | 165 | |
| | | | | | | CSAJ-17 | 99 | | 71 | 27 | 134 | |
| | | | | | | CSAJ-26 | 106 | | 82 | | | |
| | | | | | | | | | | *REPORT NUMBERS | | |
| | | | | | | | (73) | | (75A) | (75B) | (77) | (80) |
| | | CORE SPRAY B* | ONE | 4 | 4* | CSBJ-2A | | | 67,104 | 1 | 37,140 | 170,170A |
| | | | TWO | 5 | 7* | CSBJ-3 | | | 65 | 3,84 | 141 | 55 |
| | | | THREE | 1 | 6* | CSBJ-4 | | | 77 | 4 | 121 | 53 |
| | | | | | | CSBJ-5 | | | 83 | 17 | 166 | 65 |
| | | | | | | CSBJ-8 | | | 84 | 5 | 122 | 54 |
| | | | | | | CSBJ-10 | | | | | | 84 |
| | | | | | | CSBJ-11 | 94 | | | | | |
| | | | | | | CSBJ-13 | 92 | | 82 | 8,83 | 146 | |
| | | | | | | CSBJ-14 | 93 | | 78 | 9 | 147 | |
| | | | | | | CSBJ-23 | 107 | | | | | |
| | | HIGH PRESSURE COOLANT INJECTION -STEAM- | ONE | 4 | 4 | PSAJ-19,3,4,2A | | | | 73-12,43,130,44 | | |
| | | | | | | PSAJ-2A.4 | | | | 74-13,14, (REPEAT) | | |
| | | | TWO | 1 | 1 | PSAJ-1 | | | | 77-54 | | |
| | | | THREE | 1 | 1 | PSAJ-15 | | | | 78-54 | | |

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MAJOR ITEM: PIPING PRESSURE BOUNDARY

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| B4.5 | B-J | (CONT'D) | | | | | |
| | | REACTOR WATER CLEAN UP | ONE | – | – | | |
| | | | TWO | 5 | 5 | CWAJ-2,1,2A<br>CWAJ-17,1,2A,3 | 75A-57,58,97,59<br>77-83,59,56,61,44 |
| | | | THREE | 2 | 2 | CWAJ-4,5 | 78-71,70 |
| | | | | | | | *CRD LINE REROUTED AND CAPPED |
| | | CONTROL ROD* HYDRAULIC RETURN | ONE | – | – | | |
| | | | TWO | 11 | 11 | CRAJ-10,11<br>CRAJ-30,32,33,34<br>CRAJ-4,5,8<br>CRAJ-12,13 | 75A,101,100<br>75A,52,53,54,55<br>75B-99,100,101<br>75B,102,103 |
| | | RESIDUAL HEAT REMOVAL REW 10 (18") | ONE | 1 | 1 | RHAJ-7 (2)<br>RHAJ-1 | 73-62/74-115<br>74,126(IDENTIFIED RCAJ-7) |
| | | | TWO | 7 | 7 | RHAJ-9,10,15,1<br>RHAJ-2,3,6 | 77-151,152,153,168<br>77-169,170,172 |
| | | | THREE | 2 | 2 | RHAJ-21<br>RHAJ-20 | 80-115<br>80-112 |
| | | RESIDUAL HEAT REMOVAL TW 20 (16") | ONE | 2 | 2 | RHBJ-21,22 | 73-58,59 |
| | | | TWO | 3 | 3 | RHBJ-31,28<br>RHBJ-19 | 75A-47,125<br>77-161 |
| | | | THREE | 2 | – | | |
| | | TW 20 (18") | ONE | – | – | | |
| | | | TWO | 2 | 2 | RHBJ-1,3 | 77-173,174 |
| | | | THREE | – | – | | |

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|---|---|---|---|---|---|---|---|
| B4.5 | B-J | (CONT'D) | | | | | |
| | | RESIDUAL HEAT REMOVAL TW 30 (16") | ONE | 8 | 8 | RHCJ-18,26,28<br>RHCJ-29,32,34<br>RHCJ-21,22,32 | 74-95,98,99<br>74-100,104,105,112,113<br>75A-46,90,127 |
| | | | TWO | - | - | | |
| | | | THREE | 2 | - | | |
| | | TW 30 (18") | ONE | - | - | | |
| | | | TWO | 2 | 4 | RHCJ-3,1/1,3 | 75A-86,87/77-182,183 |
| | | | THREE | - | 1 | RHCJ-1 | 80-148 |
| | | RESIDUAL HEAT REMOVAL TW 36 (4") | ONE | 1 | 1 | RHDJ-3 | 73-068 |
| | | | TWO | 4 | 4 | RHDJ-4,5,6,7 | 75A-51,50,49,48 |
| | | | THREE | 2 | - | | |
| | | REACTOR CORE INJECTION COOLANT STEAM (3") | ONE | - | - | | |
| | | | TWO | 2 | 2 | RSAJ-1,2 | 77-62,63 |
| | | | THREE | 2 | 2 | RSAJ-11,12 | 78-86,86E,87,87E |
| | | RECIRCULATION A REW 13 A-28" | ONE | 1 | 1 | RCAJ-3 | 73-073,79 |
| | | | TWO | 1 | 1 | RCAJ-17 | 75B-033,59 |
| | | | THREE | 6 | 6 | RCAJ-5,15<br>RCAJ-4,6,9,35 | 78-73,77<br>80-164,174,171,179 |
| | | RECIRCULATION B REW 13 B-28" | ONE | 1 | 1 | RCBJ-3 | 74-68,72 |
| | | | TWO | 1 | 1 | RCBJ-28 | 75B-65 |
| | | | THREE | 4 | 4 | RCBJ-5<br>RCBJ-4,31,34 | 78-72<br>80-173,180,180A,172 |

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|---|---|---|---|---|---|---|---|---|---|---|
| B4.5 | B-J | (CONT'D) | | | | | | | | |
| | | | | | | | | *REPORT NUMBERS | | |
| | | RECIRCULATION BYPASS LINE A REW 24-4" | ONE | – | – | | (75A) | (75A) | (75B) | (77) |
| | | | TWO | 12 | 12 | BASELINE | | BASELINE | | |
| | | | | | | RBAJ-M3 | 113 | 13,31 | 137 | 3 |
| | | | | | | RBAJ-M4 | | 11 | 135 | 4 |
| | | | | | | RBAJ-M5 | | 12,31 | 136 | 5 |
| | | | | | | RBAJ-M6 | 114 | 10,33A | 134 | 6 |
| | | | | | | RBAJ-M7 | | 133 | 133 | 7 |
| | | | | | | RBAJ-M8 | 116 | 8,133 | 132 | 8 |
| | | | | | | RBAJ-M9 | 120 | 7 | 131 | 9 |
| | | | | | | RBAJ-M11 | | 6 | 130 | 10 |
| | | | | | | RBAJ-M12 | | 1 | 129 | 11 |
| | | | | | | RBAJ-M13 | | 2 | 128 | 12 |
| | | | | | | RBAJ-M14 | | 3 | 127 | 13 |
| | | | | | | RBAJ-M15 | | 4 | 126 | 14 |
| | | | THREE | 2 | 2 | RBAJ-M3,M15 | | 80,160,153 | | |
| | | RECIRCULATION BYPASS LINE B REW 25-4" | | | | | | *REPORT NUMBERS | | |
| | | | ONE | – | – | | (75A) | (75A) | (75B) | (77) |
| | | | TWO | 13 | 13* | BASELINE | | BASELINE | | |
| | | | | | | RBBJ-M3 | | 19 | 150 | 19 |
| | | | | | | RBBJ-M5 | | 20,105 | 149 | 20 |
| | | | | | | RBBJ-M6 | | 18 | 148 | 21 |
| | | | | | | RBBJ-M7 | | 16 | 147 | 22 |
| | | | | | | RBBJ-M8 | | 106,27 | 146 | 23 |
| | | | | | | RBBJ-M9 | 118 | 26 | 145 | 24 |
| | | | | | | RBBJ-M10 | 112 | 133,29 | 144 | 25 |
| | | | | | | RBBJ-M12 | 111 | – | 143 | 26 |
| | | | | | | RBBJ-M13 | 121 | 25 | 142 | 27 |
| | | | | | | RBBJ-M15 | | 15,7 | 141 | 28 |
| | | | | | | RBBJ-M16 | | 28 | 140 | 29 |
| | | | | | | RBBJ-M17 | | 24 | 139 | 30 |

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|---|---|---|---|---|---|---|---|---|---|
| | | | | | | BASELINE (75A) | (75A) | BASELINE (75B) | (77) |
| B4.5 | B-J | (CONT'D) | | | | | | | |
| | | REW 25-4" | | | | | | | |
| | | | | | | RBBJ-M18 | 22 | 138 | 31 |
| | | | THREE | 2 | 2 | RBBJ-M3,M18 | 80-162,152 | | |
| | | RECIRCULATION MANIFOLD REW 32-22" | ONE | 1 | 1 | RMBJ-15 | 73-045 | | |
| | | | TWO | 1 | 1 | RMBJ-12 | 75B-64 | | |
| | | | THREE | 6 | 6 | RMBJ-2,RMAJ-15,16 | 78-92/78,81,93 | | |
| | | | | | | RMAJ-7,8,10 | 80-133,149,134 | | |
| | | RECIRCULATION RISERS RISER F REW 14-12" | ONE | - | - | | | | |
| | | | TWO | - | - | | | | |
| | | | THREE | 2 | 2 | RRFJ-3/RRFJ-7 | 78-121/80-166 | | |
| | | RISER G REW 15-12" | ONE | - | - | | | | |
| | | | TWO | 4 | 4 | RRGJ-4,5,7 | 75A-39,44,45 | | |
| | | | | | | RRGJ-7,3 | 75B,49,108 | | |
| | | | THREE | - | - | | | | |
| | | RISER H REW 16-12" | ONE | - | - | | | | |
| | | | TWO | - | - | | | | |
| | | | THREE | 2 | 2 | RRHJ-3/RRHJ-7 | 78-122/80-135,158 | | |
| | | RISER J REW 17-12" | ONE | 1 | 1 | RRJJ-3 | 73-74,83 | | |
| | | | TWO | 3 | 3 | RRJJ-4,5,7 | 75B-50,51,52 | | |
| | | | THREE | - | - | | | | |
| | | RISER K REW 18-12" | ONE | 1 | 1 | RRKJ-7 (2) | 73-46/74-114 | | |
| | | | TWO | - | - | | | | |
| | | | THREE | 1 | 1 | RRKJ-3 | 78-124 | | |
| | | RISER A REW 23-12" | ONE | 1 | 1 | RRAJ-3 | 74-117 | | |
| | | | TWO | 3 | 3 | RRAJ-4,5,7 | 75B-53,54,55 | | |
| | | | THREE | - | - | | | | |



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|---|---|---|---|---|---|---|---|
| B4.5 | B-J | (CONT'D) | | | | | |
| | | RISER B REW 22-12" | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | 1 | RRBJ-3 | 78-123 |
| | | RISER C REW 21-12" | ONE | – | – | | |
| | | | TWO | 4 | 4 | RRCJ-4,5,7 (2)<br>RRCJ-3 | 75A-42,43,(40,41)<br>75B-98,107 |
| | | | THREE | – | – | | |
| | | RISER D REW 20-12" | ONE | 1 | 1 | RRDJ-3 | 73-75,84 |
| | | | TWO | 3 | 3 | RRDJ-4,5,7 | 75B-58,57,56 |
| | | | THREE | – | – | | |
| | | RISER E REW 19-12" | ONE | – | – | | |
| | | | TWO | 4 | 4 | RREJ-3,4<br>RREJ-5,7 | 77-203,202<br>77-201,162 |
| | | | THREE | – | – | | |
| | | HEAD SPARE (N6B) | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | – | | |
| | | HEAD VENT (N7) | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | – | | |
| | | JET PUMP INSTRUMENT NOZZLES<br>4" N 8A<br>4" N 8B | ONE | 2 | 2 | JPAJ-3<br>JPBJ-3 | 74-83,85<br>74-86,87 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | MAIN STEAM CONDENSATE LEAK OFF | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | 1 | CLAJ-10 | 78-110 |

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|---|---|---|---|---|---|---|---|
| B4.5 | B-J | (CONT'D) | | | | | |
| | | | | | | *NOT REQUIRED IN PERIOD ONE OR TWO | |
| | | CRD SCRAM HEADER | * | | | | |
| | | CRD 26A-8" DB | THREE | 1 | – | | |
| | | CRD 26B-8" DB | THREE | 1 | – | | |
| | | CRD 13A-4" DB | THREE | 1 | – | | |
| | | CRD 13B-4" DB | THREE | 1 | – | | |
| | | CRD 15A-4" DB | THREE | 1 | – | | |
| | | CRD 15B-4" DB | THREE | 1 | – | | |
| | | CRD 14A-6" DB | THREE | 1 | – | | |
| | | CRD 14B-6" DB | THREE | 1 | – | | |
| | | SCRAM DISCHARGE VOLUME TANK | * | | | | |
| | | CRD 18-12" DB | THREE | 1 | – | | |
| B4.6 | B-J | BRANCH PIPE CONNECTIONS EXCEEDING SIX INCH DIAMETER | | | | | |
| | | MAIN STEAM B (18") | TWO | 1 | 1 | MSBJ-22 | 77-71,150,39 |
| | | RECIRCULATION MANIFOLD | | | | | |
| | | A RISER F (RMAJ-3) | THREE | 1 | 1 | RMAJ-3 | 80-165 |
| | | RISER G (RMAJ-5) | – | – | – | | |
| | | RISER J (RMAJ-12) | – | – | – | | |
| | | RISER K (RMAJ-14) | – | – | – | | |
| | | B RISER A (RMBJ-14) | – | – | – | | |
| | | RISER B (RMBJ-12) | TWO | 1 | 1 | RMBJ-12 | 75B-63 |
| | | RISER D (RMBJ-5) | – | – | – | | |
| | | RISER E (RMBJ-3) | TWO | 1 | 1 | RMBJ-3 | 77-210,185 |

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|---|---|---|---|---|---|---|---|
| B4.7 | B-J | BRANCH PIPE CONNECTION WELDS SIX INCH DIAMETER AND SMALLER | | | | | |
| | | MAIN STEAM A (6") | ONE | 3 | 3 | MSAJ-15,19,26 | 74-44-45-48 |
| | | | TWO | 1 | 1 | MSAJ-21 | 77-79,186 |
| | | | THREE | 1 | 1 | MSAJ-23 | 80-183 |
| | | MAIN STEAM B 6" | ONE | 2 | 2 | MSBJ-16,20 | 74-46,47 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | MAIN STEAM C (6") | ONE | 2 | 2 | MSCJ-15,20 | 74-1,40 |
| | | | TWO | – | – | | |
| | | | THREE | 1 | – | MSCJ-18 | 80-182 |
| | | MAIN STEAM D (6") | ONE | 4 | 4 | MSDJ-22,16,20,27 | 74-6,32,34,35 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | REACTOR WATER CLEANUP | ONE | – | – | | |
| | | | TWO | 2 | 2 | CWAJ-1 | 77-38(IDENTIFIED AS RCBJ-7) |
| | | | THREE | – | – | CWAJ-7 | 77-41,44 |
| | | RECIRCULATION A | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | RECIRCULATION B | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | – | | |
| | | RECIRCULATION BYPASS A | ONE | – | – | | |
| | | | TWO | 2 | 2 | RBAJ-2 | 75A-115,14,31/75B-39 77-2 77-17,192,37(IDENTIFIED AS RCAJ-26) |

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| B4.7 | B-J | (CONT'D) | | | | | |
| | | | | | | RBAJ-16 | 75A-5/77-15<br>75A-32,35/77-16,191,37<br>(IDENTIFIED AS RBAJ-17) |
| | | | THREE | 2 | 2 | RBAJ-2,16<br>RBAJ-2,16 | 78-109,105<br>80-163,169,151,157 |
| | | RECIRCULATION BYPASS B | ONE | – | – | | |
| | | | TWO | 2 | 2 | RBBJ-2 | 75A-1,21/77-18<br>77-47,190,34(IDENTI-FIED AS RBBJ-1 |
| | | | | | | RBBJ-19 | 75A-30/77-32<br>77-33,47,189,34(IDEN-ATIFIED AS RBBJ-20) |
| | | | THREE | 2 | 2 | RBBJ-2,19<br>RBBJ-2,19 | 78-104,108<br>80-159,161,150,156 |
| | | CRD SCRAM HEADER | ONE | – | – | | |
| | | CRD 18-12" DB | TWO | – | – | | |
| | | | THREE | 1 | 1 | SDAJ-5 | 78-25 |
| B4.8 | B-J | SOCKET WELDS | | | | | |
| | | MAIN STEAM A | ONE | 1 | 1 | MSAJ-35 | 73-035 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | MAIN STEAM B | ONE | 1 | 1 | MSBJ-32 | 73-036 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | MAIN STEAM C | ONE | 1 | 1 | MSCJ-32 | 73-037 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |

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|---|---|---|---|---|---|---|---|
| B4.8 | B-J | (CONT'D) | | | | | |
| | | MAIN STEAM D | ONE | 1 | 1 | MSDJ-37 | 73-038 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | REACTOR VESSEL BOTTOM HEAD DRAIN | ONE | – | – | | |
| | | | TWO | 1 | 1 | HDAJ-47 | 77-45,35 |
| | | | THREE | 9 | 3 | HDAJ-41,45,46 | 80-100 |
| | | STANDBY LIQUID CONTROL N10 | ONE | – | – | *108 SOCKET WELDS | |
| | | | TWO | 15 | 15 | EXAMINED PERIOD 2 | 75B-113 |
| | | | | | | | *SBCJ-54 |
| | | | | | | | THRU-69, (CLASS 1) |
| | | | | | | | SBCJ-53 (CLASS 2) |
| | | | | | | 1978 IDENTIFICA- | SBCJ-47 THRU 50 |
| | | | | | | TION CHANGED FROM | SBCJ-4A THRU 44 |
| | | | | | | "SBCJ" TO "CPAJ" | SBCJ-1 THRU 4A |
| | | | | | | | SBBJ-1 THRU 20 |
| | | | | | | | SBAJ-1 THRU 20 |
| | | | THREE | 2 | – | | |
| | | RECIRCULATION A: | – | – | – | -RELIEF NO. 22- | |
| | | RECIRCULATION B | – | – | – | -RELIEF NO. 22- | |
| | | (DRAIN TO CRW) | – | – | – | | |
| | | RECIRCULATION: | | | | | |
| | | MANIFOLD A | ONE | – | – | | |
| | | BYPASS OF MO2-65A | TWO | 2 | 2 | VBAJ-13,14 | 77-195 |
| | | | THREE | 2 | 2 | VBAJ-3,12 | 78-40 |
| | | MANIFOLD B | ONE | – | – | | |
| | | BYPASS OF MO2-65B | TWO | 2 | 2 | VBBJ-4,14 | 77-195 |
| | | | THREE | 2 | – | | |

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|---|---|---|---|---|---|---|---|
| B4.8 | B-J | (CONT'D) | | | | | |
| | | CRD SCRAM HEADER DISCHARGE | | | | | |
| | | CRD 16A-2" DB | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | 1 | CDAJ-45 | 78-24 |
| | | CRD 16B-2" DB | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 3 | 3 | CDBJ-45,66,68 | 78-60,27,28 |
| | | CRD SCRAM HEADER DRAIN | | | | | |
| | | CRD 18-2" DB | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | 1 | SDDJ-8 | 78-26 |
| | | INSTRUMENT LINES | | | | | |
| | | -N11A- VIAJ-3 | – | – | – | | |
| | | -N11B- VIBJ-3 | – | – | – | | |
| | | -N12A- VICJ-3 | – | – | – | | |
| | | -N12B- VIDJ-3 | – | – | – | | |
| B4.9 | B-K-1 | INTEGRALLY WELDED SUPPORTS | | | | | |
| | | MAIN STEAM A | ONE | – | – | | |
| | | | TWO | – | – | MSAK-31 | 77-49 |
| | | | THREE | – | – | | |
| | | MAIN STEAM B | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | MAIN STEAM C | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | 1 | MSCK-7 | 80-128,130,132 |

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| B4.9 | B-K-1 | (CONT'D) | | | | | |
| | | MAIN STEAM D | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | 1 | MSDK-32 | 80-101,110,127 |
| | | FEEDWATER A (10") | ONE | 1 | 1 | FWAK-13 | 74-53 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | FEEDWATER B (10") | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | FEEDWATER C (10") | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | FEEDWATER D (10") | ONE | 1 | 1 | FWDK-13 | 74-59 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | FEEDWATER A (14") | ONE | 1 | 1 | FWAK-29 | 73-32 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | FEEDWATER D (14") | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | HIGH PRESSURE COOLANT INJECTION | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | 1 | PSAK-7 | 78-23,37,74 |
| | | REACTOR WATER CLEAN UP | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | 1 | CWAK-14 | 78-41,43,69 |

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|---|---|---|---|---|---|---|---|
| B4.9 | B-K-1 | (CONT'D) | | | | | |
| | | RESIDUAL HEAT REMOVAL TW 36 | ONE | - | - | | |
| | | | TWO | - | - | | |
| | | | THREE | - | - | | |
| | | REACTOR CORE INJECTION COOLANT -STEAM- | ONE | - | - | | |
| | | | TWO | - | - | | |
| | | | THREE | - | - | | |
| | | RESIDUAL HEAT REMOVAL REW 10 | ONE | - | - | | |
| | | | TWO | - | - | | |
| | | | THREE | 1 | 1 | RHAK-22 | 80-114,129,136 |
| | | RESIDUAL HEAT REMOVAL TW 20 | ONE | 1 | 1 | RHBK-23 (2) | 73-060/74-27 |
| | | | TWO | - | - | | |
| | | | THREE | - | - | | |
| | | RESIDUAL HEAT REMOVAL TW 30 | ONE | 1 | 1 | RHCK-24 | 74-128 |
| | | | TWO | - | - | | |
| | | | THREE | - | - | | |
| | | RECIRCULATION A (28") | ONE | - | - | | |
| | | | TWO | 1 | 1 | RCAK-33 | 77-90 |
| | | | THREE | 2 | 1 | RCAK-16 | 78-58,68,80 |
| | | RECIRCULATION B (28") | ONE | - | - | | |
| | | | TWO | 1 | 1 | RCBK-32 | 77-199 |
| | | | THREE | 2 | - | | |
| | | RECIRCULATION MANIFOLD A & B | ONE | - | - | | |
| | | | TWO | 1 | 1 | RMBK-6A | 77-193,194 |
| | | | THREE | 2 | - | | |
| | | SCRAM DISCHARGE VOLUME TANK CRD 18-12" DB | ONE | - | - | | |
| | | | TWO | - | - | | |
| | | | THREE | 1 | - | | |

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|---|---|---|---|---|---|---|---|
| B4.10 | B-K-2 | SUPPORT COMPONENTS | | | | | |
| | | MAIN STEAM A | ONE | 3 | 3 | MSAK-1,25,30 | 74-17,23,50 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | MAIN STEAM B | ONE | 2 | 2 | MSBK-14,17 | 74-22,19 |
| | | | TWO | – | – | | |
| | | | THREE | 2 | 2 | MSBK-14/MSBK-17 | 78-44/80-46,46R |
| | | MAIN STEAM C | ONE | 2 | 2 | MSCK-17,14 | 74-39,38 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | MAIN STEAM D | ONE | 2 | 2 | MSDK-31,14 | 74-21,36 |
| | | | TWO | 1 | 1 | MSDK-15 | 77-50 |
| | | | THREE | 1 | 1 | MSDK-15 | 80-47 |
| | | FEEDWATER A (10") | ONE | 3 | 3 | FWAK-14,15,17 | 74-54,55,56 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | FEEDWATER A (14") | ONE | 2 | 2 | FWAK-26,31 (2) | 73-40,31/74-24 |
| | | | TWO | | – | | |
| | | | THREE | 1 | 1 | FWAK-26 | 80-44 |
| | | FEEDWATER D (10") | ONE | 3 | 3 | FWDK-17,15,14 | 74-57,58,60 |
| | | | TWO | 1 | 1 | FWDK-17 | 77-98 |
| | | | THREE | 1 | 1 | FWDK-14 | 80-45 |
| | | FEEDWATER D (14") | ONE | 2 | 2 | FWDK-31,27 | 73-34,41 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |
| | | CORE SPRAY A | ONE | 2 | 2 | CSAK-7,15 | 74-133,134 |
| | | | TWO | – | – | | |
| | | | THREE | – | – | | |

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|---|---|---|---|---|---|---|---|
| B4.10 | B-K-2 | (CONT'D) | | | | | |
| | | CORE SPRAY B | ONE | - | - | | |
| | | | TWO | 1 | 1 | CSBK-15 | 77-136 |
| | | | THREE | 1 | 1 | CSBK-6 | 80-62,62R |
| | | REACTOR WATER CLEAN UP | ONE | - | - | | |
| | | | TWO | 1 | 1 | CWAK-11 | 77-196 |
| | | | THREE | 1 | 1 | CWAK-15 | 80-63,63R |
| | | RESIDUAL HEAT REMOVAL REW 10 | ONE | - | - | | |
| | | | TWO | 2 | 2 | RHAK-13,14 | 77-155 |
| | | | THREE | 2 | - | | |
| | | RESIDUAL HEAT REMOVAL TW 20 | ONE | - | - | | |
| | | | TWO | 1 | 1 | RHBK-9 | 77-197 |
| | | | THREE | 2 | 2 | RHBK-10,12 | 78-31,32 |
| | | RESIDUAL HEAT REMOVAL TW 30 | ONE | - | - | | |
| | | | TWO | - | - | | |
| | | | THREE | 2 | 2 | RHCK-9,10 | 80-39,38 |
| | | REACTOR CORE INJECTION COOLANT - STEAM | ONE | - | - | | |
| | | | TWO | 1 | 1 | RSAK-9 | 77-48 |
| | | | THREE | 1 | 1 | RSAK-13 | 78-33 |
| | | RECIRCULATION A (28") | ONE | - | - | | |
| | | | TWO | 3 | 3 | RCAK-6,31,34 | 77-090,199 |
| | | | THREE | 9 | 5 | RCAK-12,14 | 78-57,56 |
| | | | | | | RCAK-29,22A,PSSA-5 | 80-146,147,137 |
| | | RECIRCULATION B (28") | ONE | - | - | | |
| | | | TWO | 3 | 3 | RCBK-27,30,33 | 77-089 |
| | | | THREE | 7 | 4 | RCBK-8,10/RCBK-12, | 78-51,52 |
| | | | | | | RCBK-12,20A | 80-144,143 |

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|---|---|---|---|---|---|---|---|
| B4.10 | B-K-2 | (CONT'D) | | | | | |
| | | RECIRCULATION BY-PASS (A&B) | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 2 | 2 | RBAK-10(2) | 78-45/80-145,145R |
| | | | | | | RBBK-14(2) | 78-46/80-142,142R |
| | | RECIRCULATION MANIFOLD A | ONE | – | – | | |
| | | | TWO | 2 | 2 | RMAK-11,13A | 77-88 |
| | | | THREE | 4 | 4 | RMAK-4A,VBAK-6A | 78-59,30 |
| | | | | | | RMAK-6A,17 | 80-48,49 |
| | | MANIFOLD B | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 6 | 5 | RMBK-13A,13B | 78-65,66 |
| | | | | | | RMBK-4A,6,17 | 80-42,43,41 |
| | | RECIRCULATION A (12") | | | | | |
| | | RISER F | TWO | 1 | 1 | RRFK-6 | 77-43 |
| | | G | THREE | 1 | 1 | RRGK-6 | 78-36 |
| | | H | TWO | 1 | 1 | RRHK-6 | 77-43 |
| | | J | THREE | 1 | 1 | RRJK-6 | 78-35 |
| | | K | TWO | 1 | 1 | RRKK-6 | 77-43 |
| | | RECIRCULATION RISER A | TWO | 1 | 1 | RRAK-6 | 77-42 |
| | | B | TWO | 1 | 1 | RRBK-6 | 77-42 |
| | | C | THREE | 1 | 1 | RRCK-6 | 78-34 |
| | | RISER D | THREE | 1 | 1 | RRDK-6(2) | 78-38/80-40 |
| | | E | TWO | 1 | 1 | RRAK-6 | 77-42 |
| | | REACTOR VESSEL BOTTOM HEAD DRAIN | THREE | 3 | – | | |
| | | STANDBY LIQUID CONTROL | THREE | 2 | – | | |

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| B4.10 | B-K-2 | (CONT'D) | | | | | |
| | | CRD SCRAM HEADER | * | | | | *ONLY PERIOD 3 REQ. |
| | | HEADER A | | | | | |
| | | CRD 26A-8" DB | THREE | 1 | 1 | CDAK-6 | 78-67 |
| | | CRD 13A-4" DB | THREE | 1 | 1 | CDAK-12(2) | 78-48,48R/80-20 |
| | | CRD 14A-6" DB | THREE | 1 | 1 | CDAK-24(2) | 78-49,49R/80-21 |
| | | CRD 15A-4" DB | THREE | 1 | 1 | CDAK-37(2) | 78-47,47R/80-19,19R |
| | | HEADER B | * | | | | |
| | | CRD 26B-8" DB | THREE | 1 | – | | |
| | | CRD 13B-4" DB | THREE | 1 | – | | |
| | | CRD 14B-6" DB | THREE | 1 | – | | |
| | | CRD 15B-4" DB | THREE | 1 | – | | |
| | | CRD SCRAM HEADER DISCHARGES | | | | | |
| | – | CRD16A-2"DB A | THREE | 1 | – | | |
| | | CRD16B-2"DB B | THREE | 6 | – | | |
| | | CRD SCRAM HEADER DRAIN | | | | | |
| | | CRD18-2" B | THREE | 1 | – | | |
| | | SCRAM DISCHARGE VOLUME TANK | | | | | |
| | | CRD18-12"DB | THREE | 1 | – | | |
| B4.11 | B-P | EXEMPTED COMPONENTS | | | | ONE INCH AND LESS PRIMARY SYSTEM LINES THAT ARE EXEMPTED BY IWB-1220 (b) | -PLANT PERSONNEL- IWA-5000 AND IWB-5000 |
| | | VENT LINE | — | — | — | V15-1" ED | |
| | | INSTRUMENT LINES A | | | | 1" DC | |
| | | B | | | | 1" DC | |
| | | C | | | | 1" DC | |
| | | D | | | | 1" DC | |

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|---|---|---|---|---|---|---|---|
| B4.11 | B-P | (CONT'D) | | | | | |
| | | CRD SYSTEM | — | — | — | 1" LINES FROM CRD HYDRAULIC UNITS AND RECIRC RISERS | |
| | | RECIRCULATION STANDBY LIQUID CONTROL | — | — | — | 1" LINES FROM N10 | |
| | | RELIEF REQUEST LINES | — | — | — | LINES EXEMPTED FROM EXAMINATION BY RELIEF REQUEST AND EXCLUSION CRITERIA | |
| B4.12 | B-G-2 | PRESSURE RETAINING BOLTING | | | | -FLANGES LOCATED BY NEAREST WELD JOINT- | |
| | | MAIN STEAM A | ONE | 3 | 3 | MSAJ-18,20,24 | 74-123,124,125 |
| | | | TWO | 4 | 4 | MSAJ-18,20,24,27 | 77-49(4) (REPEATED) |
| | | | THREE | 4 | 4 | MSAJ-18,22,24,27 | 78-62(4) (REPEATED) |
| | | MAIN STEAM B | ONE | - | - | | |
| | | | TWO | 1 | 1 | MSBJ-15 | 77-49 |
| | | | THREE | 1 | 1 | MSBJ-19 | 78-63 |
| | | MAIN STEAM C | ONE | - | - | | |
| | | | TWO | 1 | 1 | MSCJ-19 | 77-55 |
| | | | THREE | 1 | 1 | MSCJ-19 | 80-188 |
| | | MAIN STEAM D | ONE | - | - | | |
| | | | TWO | 4 | 4 | MSDJ-19,23,25,28 | 77-50 |
| | | | THREE | 4 | 4 | MSDJ-19,23,25,28 | 80-187,186,185,184 |

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|---|---|---|---|---|---|---|---|
| B4.12 | B-G-2 | (CONT'D) | | | | | |
| | | RESIDUAL HEAT REMOVAL TW 36 | ONE | – | – | | |
| | | | TWO | 2 | 2 | RHDJ-7,3 | 77-65 |
| | | | THREE | 2 | – | | |
| | | RECIRCULATION A REW 26-4" | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | 1 | RCAJ-20 | 80-190 |
| | | RECIRCULATION B REW 27-4" | ONE | – | – | | |
| | | | TWO | – | – | | |
| | | | THREE | 1 | – | | |
| | | RECIRCULATION A BY-PASS, REW 24-4" | ONE | 1 | 1 | RBAJ-5 | 74-129 |
| | | | TWO | – | – | | |
| | | | THREE | 1 | 1 | RBAJ-5 | 78-50 |
| | | RECIRCULATION B BY-PASS, REW 25-4" | ONE | – | – | | |
| | | | TWO | 1 | 1 | RBBJ-5 | 74-130 |
| | | | THREE | 1 | 1 | RBBJ-M5 | 80-189 |

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|---|---|---|---|---|---|---|---|
| B5.1 AND B5.3 | B-G-1 | PRESSURE RETAINING BOLTS AND STUDS, INPLACE | | | | | |
| | | RECIRCULATION FLANGE BOLTS | | | | | |
| | | PUMP A | ONE | 16 | 16 | BOLTS, 1-16 | 74-139 |
| | | | TWO | 10 | 10 | BOLTS, 1-10 | 77-115 |
| | | | THREE | 6 | – | | |
| | | PUMP B | ONE | 16 | 16 | BOLTS, 1-16 | 74-138 |
| | | | TWO | 9 | 9 | BOLTS, 1-9 | 75B-114 |
| | | | | – | 10 | BOLTS, 1-10 | 77-116 |
| | | | THREE | 7 | – | | |
| B5.2 | B-G-1 | PRESSURE RETAINING* BOLTS AND STUDS WHEN REMOVED | | | | (NOTE B5.7) | *RELIEF NO. 41 |
| | | RECIRCULATION FLANGE BOLTS | | | | | |
| | | PUMP A OR B | THREE | 16 | – | | |
| B5.4 | B-K-1 | INTEGRALLY WELDED SUPPORTS | – | – | – | * | *INCLUDED UNDER TABLE S4.1 |
| B5.5 | B-K-2 | SUPPORT COMPONENTS | – | – | – | * | *INCLUDED UNDER TABLE S4.1 |
| B5.6 | B-L-1 | PUMP CASING WELDS | – | – | – | -NONE- | |
| B5.7 | B-L-2 | PUMP CASINGS* | | | | (NOTE B5.2) | *RELIEF NO. 41 |
| | | RECIRCULATION PUMP A OR B | THREE | 1 | – | | |

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| B5.8 | B-P | EXEMPTED COMPONENTS | – | – | – | * | *INCLUDED IN SYSTEMS LISTED IN B4.11 OF TABLE S4.1 |
| B5.9 | B-G-2 | PRESSURE RETAINING BOLTING | | | | | |
| | | RECIRCULATION GLAND BOLTS | | | | | |
| | | PUMP A | ONE | 10 | 10 | BOLTS, 1-10 (2) | 74-118,135,137 REPL'D |
| | | | TWO | 10 | 10 | BOLTS, 1-10 | 77-118 |
| | | | THREE | 10 | – | | |
| | | PUMP B | ONE | 10 | 10 | BOLTS, 1-10 (2) | 74-106,107 REPL'D |
| | | | TWO | 10 | 10 | BOLTS, 1-10 | 77-118 |
| | | | THREE | 10 | – | | |

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|---|---|---|---|---|---|---|---|
| B6.1 AND B6.3 | B-G-1 | PRESSURE RETAINING BOLTS AND STUDS, IN PLACE | | | | | RELIEF NO. 24 |
| | | RECIRCULATION A MO2-53A | ONE | – | – | | |
| | | | TWO | 12 | 12 | BOLTS, 1-12 | 77-112 |
| | | | THREE | 12 | – | | (NOTE B6.2) |
| | | MO2-43A | ONE | – | – | | |
| | | | TWO | 12 | 12 | BOLTS, 1-12 | 77-111 |
| | | | THREE | 12 | – | | |
| | | RECIRCULATION B MO2-53B | ONE | – | – | | |
| | | | TWO | 12 | 12 | BOLTS, 1-12 | 77-114 |
| | | | THREE | 12 | – | | |
| | | MO2-43B | ONE | – | – | | |
| | | | TWO | 12 | 12 | BOLTS, 1-12 | 77-113 |
| | | | THREE | 12 | – | | |
| B6.2 AND B6.3 | B-G-1 | PRESSURE RETAINING * BOLTS AND STUDS, WHEN REMOVED | | | | | RELIEF NO. 42 |
| | | RECIRCULATION A MO2-53A MO2-43A MO2-53B MO2-43B | THREE | 24 | – | | (NOTE B6.7) |
| B6.4 | B-K-1 | INTEGRALLY WELDED SUPPORTS | – | – | – | * | *INCLUDED UNDER TABLE S4.1 |
| B6.5 | B-K-2 | SUPPORT COMPONENTS | – | – | – | * | *INCLUDED UNDER TABLE S4.1 |

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| B6.6 | B-M-1 | VALVE BODY WELDS | – | – | – | –NONE– | |
| B6.7 | B-M-2 | VALVE BODIES* | | | | | *EXAMINE THE INTERNALS OF ONE VALVE UNDER EACH TYPE |
| | | ATWOOD MORRILL GLOBE VALVES | THREE | 1 | – | | |
| | | MAIN STEAM A<br>A02-80A<br>A02-86A | THREE | 1 | 1 | | 80-126 |
| | | MAIN STEAM B<br>A02-80B<br>A02-86B | | | | | |
| | | MAIN STEAM C<br>A02-80C<br>A02-86C | | | | | |
| | | MAIN STEAM D<br>A02-80D<br>A02-86D | | | | | |
| | | TARGET ROCK RELIEF VALVES | THREE | 1 | – | | |
| | | MAIN STEAM A<br>RV2-71A<br>RV2-71E | | | | | |
| | | MAIN STEAM B<br>RV2-71B<br>RV2-71G | | | | | |
| | | MAIN STEAM C<br>RV2-71C<br>RV2-71H | | | | | |
| | | MAIN STEAM D<br>RV2-71D<br>RV2-71F | | | | | |

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| | | ANCHOR CHECK VALVE | THREE | 1 | - | | |
| | | FEEDWATER A<br>FW-97-2<br>FW-94-2 | | | | | |
| | | FEEDWATER B<br>FW-97-1<br>FW-94-1 | | | | | |
| | | ATWOOD MORRILL CHECK VALVE | THREE | 1 | - | | |
| | | RHR-TW20<br>A010-46B<br>RHR-TW-30<br>A010-46A | | | | | |
| | | ROCKWELL CHECK VALVE | THREE | 1 | - | | |
| | | CORE SPRAY A<br>A014-13B | | | | | |
| | | CORE SPRAY B<br>A014-13A | | | | | |
| | | ANCHOR CHECK VALVE | | | | | |
| | | CORE SPRAY A<br>POS-175B<br>MO-1754 | | | | | |
| | | CORE SPRAY B<br>POS-1757<br>MO-1753 | | | | | |

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|---|---|---|---|---|---|---|---|
| B6.7 | B-M-2 | HPCI-STEAM<br>MO-2034<br>MO-2035 | | | | | |
| | | RHR-REW10<br>MO-2029<br>MO-2030<br>POS-2028 | | | | | |
| | | FEEDWATER A<br>FW-98-2 | | | | | |
| | | FEEDWATER B<br>FW-98-1 | | | | | |
| | | RHR-TW20<br>POS-2019<br>MO-2015 | | | | | |
| | | RHR-TW30<br>POS-2018<br>M-2014 | | | | | |
| | | CRANE CHAPMAN GATE VALVE | THREE | 1 | - | | |
| | | RECIRCULATION MANIFOLD<br>MO2-65A<br>MO2-65B | | | | | |
| | | RECIRCULATION A<br>MO2-53A<br>MO2-43A | | | | | |
| | | RECIRCULATION B<br>MO2-53B<br>MO2-43B | | | | | |

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|---|---|---|---|---|---|---|---|
| B6.8 | B-P | EXEMPTED COMPONENTS | — | — | | * | *INCLUDED IN SYSTEMS LISTED IN B4.11 OF TABLE S4.1 |
| B6.9 | B-G-2 | PRESSURE RETAINING BOLTING | | * | | | *REQUIRED AMOUNT INDICATED REFLECTS ALL BOLTING FOR EACH RESPECTIVE VALVE SCHEDULED |
| | | MAIN STEAM A | | | | | |
| | | PS 1-18" ED | | | | | |
| | | A02-80 A | ONE | 1 | 1 | A02-80 A | 73-119 |
| | | A02-86 A | THREE | 1 | 1 | A02-86 A | 78-125 |
| | | MAIN STEAM B | | | | | |
| | | PS2-18" ED | | | | | |
| | | A02-80 B | TWO | 1 | 1 | A02-80 B | 77-49 |
| | | A02-86 B | THREE | 1 | 1 | A02-86 B | 78-126 |
| | | MAIN STEAM C | | | | | |
| | | PS3-18" ED | | | | | |
| | | A02-86 C | TWO | 1 | 1 | A02-86 C | 77-87 |
| | | A02-80C | THREE | 1 | 1 | A02-80C | 80-99 |
| | | MAIN STEAM D | | | | | |
| | | PS4-18" ED | | | | | |
| | | A02-80 D | TWO | 1 | 1 | A02-80D | 77-50 |
| | | A02-86 D | THREE | 1 | 1 | A02-86D | 80-26 |
| | | MAIN STEAM -RELIEF VALVES- | | | | | |
| | | MAIN STEAM A | | | | | |
| | | RV2-71 E | ONE | 1 | 1 | RV2-71 E (2) | 73-129/77-177R |
| | | RV2-71A | THREE | 1 | 1 | RV2-71 A | 78-62 (REPEAT) |

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|---|---|---|---|---|---|---|---|
| B6.9 | B-G-2 | (CONT'D) | | | | | |
| | | MAIN STEAM B | | | | | |
| | | RV2-71 B | ONE | 1 | 1 | RV2-71 B | 73-115 (REPEAT) |
| | | RV2-71 G | THREE | 1 | 2 | RV2-71B, RV2-71G | 78-63 |
| | | MAIN STEAM C | | | | | |
| | | RV2-71 C | ONE | 1 | 1 | RV2-71C | 73-113, 114 |
| | | RV2-71 H | THREE | 1 | – | | |
| | | MAIN STEAM D | | | | | |
| | | RV2-71 F | ONE | 1 | 1 | RV2-71 F | 73-112, 116 (REPEAT) |
| | | RV2-71 D | THREE | 1 | – | | |
| | | FEEDWATER A | | | | | |
| | | FW-98-2 | ONE | 1 | 1 | FW-98-2 | 73-104 |
| | | FW-97-2 | ONE | 1 | 1 | FW-97-2 | 73-118 |
| | | FW-94-2 | THREE | 1 | 1 | FW-94-2 | 78-64 |
| | | FEEDWATER B | | | | | |
| | | FW-94-1 | TWO | 1 | 1 | FW-94-1 | 77-85 |
| | | FW-97-1 | TWO | 1 | 1 | FW-97-1 | 73-102/77-85 |
| | | FW-98-1 | THREE | 1 | 1 | FW-98-1 | 78-61 (REPEAT) |
| | | HPCI - STEAM | | | | | |
| | | MO-2034 | TWO | 1 | 1 | MO-2034 | 77-107 |
| | | MO-2035 | THREE | 1 | – | | |
| | | CORE SPRAY A | | | | | |
| | | MO-1754 | TWO | 1 | 1 | MO-1754 | 77-109 |
| | | AO14-13 B | TWO | 1 | 1 | AO14-13 B | 77-109 |
| | | POS-1758 | THREE | 1 | 1 | POS-1758 | 80-102 |

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|---|---|---|---|---|---|---|---|
| B6.9 | B-G-2 | (CONT'D) | | | | | |
| | | CORE SPRAY B | | | | | |
| | | MO-1753 | TWO | 1 | 1 | MO-1753 | 77-108 |
| | | AO14-13 A | THREE | 1 | – | | |
| | | POS-1757 | THREE | 1 | – | | |
| | | REACTOR WATER CLEAN UP | | | | | |
| | | MO-2398 | TWO | 1 | 1 | MO-2398 | 77-91 |
| | | RC-1 | TWO | 1 | 1 | RC-1 | 77-91 |
| | | MO-2397 | THREE | 1 | 1 | MO-2397 | 80-98 |
| | | RESIDUAL HEAT REMOVAL | | | | | |
| | | REW10-18" ED | | | | | |
| | | POS-2028 | TWO | 1 | 1 | POS-2028 | 77-106 |
| | | MO-2030 | TWO | 1 | 1 | MO-2030 | 77-157 |
| | | MO-2029 | THREE | 1 | – | | |
| | | TW20-16" DB | | | | | |
| | | POS-2019 | TWO | 1 | 1 | POS-2019 | 77-105 |
| | | AO10-46 B | TWO | 1 | 1 | AO10-46B | 77-105 |
| | | MO-2015 | THREE | 1 | 1 | MO-2015 | 80-80 |
| | | TW30-16" DB | | | | | |
| | | MO-2014 | TWO | 1 | 1 | MO-2014 | 77-104 |
| | | POS-2018 | TWO | 1 | 1 | POS-2018 | 77-104 |
| | | AO10-46 A | THREE | 1 | – | | |
| | | TW36-4" ED | | | | | |
| | | RHR-21 | TWO | 1 | 1 | RHR-21 | 77-100 |
| | | MO-2027 | THREE | 1 | – | | |
| | | REACTOR CORE INJECTION COOLANT -STEAM- | | | | | |
| | | MO-2076 | TWO | 1 | 1 | MO-2076 | 77-101 |
| | | MO-2075 | THREE | 1 | 1 | MO-2075 | 80-96 |

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|---|---|---|---|---|---|---|---|
| B6.9 | B-G-2 | (CONT'D) | | | | | |
| | | RECIRCULATION A BYPASS REW 24-4" | | | | | |
| | | MO2-54 A | TWO | 1 | 1 | MO2-54 A | 77-52 |
| | | | THREE | – | – | | |
| | | RECIRCULATION B BYPASS REW 25-4" | | | | | |
| | | MO2-54 B | THREE | 1 | 1 | MO2-54 B | 78-42 |
| | | RECIRCULATION MANIFOLD A REW 32-22" | | | | | |
| | | MO2-65 A | TWO | 1 | 1 | MO2-65 A | 77-102 |
| | | MO2-66 A | THREE | 1 | 1 | MO2-66 A | 78-39 |
| | | B REW 32-22" | | | | | |
| | | MO2-66 B | TWO | 1 | 1 | MO2-66 B | 77-103 |
| | | MO2-65 B | THREE | 1 | – | | |
| | | BOTTOM HEAD DRAIN REW 31-2" ED | | | | | |
| | | XDV-4 | THREE | 1 | 1 | XDV-4 | 80-97 |
| | | STANDBY LIQUID CONTROL CH2-1 1/2 DC | | | | | |
| | | XP-6 | – | – | – | | |
| | | XP-7 | THREE | 1 | – | | |
| | | XP-8 | – | – | – | | |
| | | MAIN STEAM DRAIN PS15-3" ED | | | | | |
| | | MO-2374 | TWO | 1 | 1 | MO-2374 | 77-86 |
| | | MO-2373 | THREE | 1 | – | | |

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|---|---|---|---|---|---|---|---|
| B6.9 | B-G-2 | (CONT'D) | | | | | |
| | | RECIRCULATION A DRAIN REW 28-2" | - | - | - | -RELIEF NO. 22- | XR-6-1<br>XR-7-1 |
| | | RECIRCULATION B DRAIN REW 29-2" | - | - | - | -RELIEF NO. 22- | XR-6-2<br>XR-7-2 |
| | | CRD SCRAM HEADER DRAIN LINE CRD18-2" DB | - | - | - | | |

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| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| B1.4 PRIMARY NOZZLE TO VESSEL WELDS AND INSIDE RADIUSED SECTION | | | | | | | |
| MAINSTEAM B N3B MSBD-1 | 2 | UT | MSBD-1 | 80-118 | NONE | NONE | NONE |
| | | UT | | 80-121 | NONE | NONE | NONE |
| | | UT | | 80-123 | NONE | NONE | INSULATION 3:00 to 6:00 ALL SCANS |
| | | UT | | 80-138 | NONE | NONE | INSULATION 5:30 to 6:30 ALL SCANS |
| | | UT | | 80-141 | NONE | NONE | INSULATION 5:30 to 6:30 ALL SCANS |
| MAINSTEAM D N3D MSDD-1 | 4 | UT | MSDD-1 | 80-119 | NONE | NONE | NONE |
| | | UT | | 80-122 | NONE | NONE | NONE |
| | | UT | | 80-124 | NONE | NONE | NONE |
| | | UT | | 80-139 | NONE | NONE | INSULATION 5:30 to 6:30 ALL SCANS |
| | | UT | | 80-140 | NONE | NONE | INSULATION 5:30 to 6:30 ALL SCANS |

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|---|---|---|---|---|---|---|---|
| B1.4 Continued | | | | | | | |
| FEEDWATER A N4A FWAD-1 | 5A | UT | FWAD-1 | 80-177 | NONE | NONE | NONE |
| | | UT | | 80-178 | NONE | BORE REFLECTORS | NONE |
| FEEDWATER B N4B FWBD-1 | 5A | UT | FWBD-1 | 80-69 | NONE | NONE | HEAT SENSOR 7:00 TO 9:00 & @ 11:00 |
| | | UT | | 80-78 | NONE | NONE | HEAT SENSOR 7:00 TO 9:00 |
| FEEDWATER C N4C FWCD-1 | 5B | UT | FWCD-1 | 80-154 | NONE | NONE | HEAT SENSOR 7:00 TO 9:00 |
| | | UT | | 80-155 | NONE | NONE | NONE |
| FEEDWATER D N4D FWDD-1 | 5B | UT | FWDD-1 | 80-74 | NONE | NONE | INSULATION 2:30 TO 3:30<br>8:00 TO 10:00 |
| | | UT | | 80-77 | NONE | NONE | HEAT SENSOR @ 12:00 |
| | | UT | | 80-85 | NONE | NONE | NONE |
| | | UT | | 80-93 | NONE | NONE | NONE |
| | | UT | | 80-95 | NONE | NONE | NONE |

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|---|---|---|---|---|---|---|---|
| B1.4 Continued | | | | | | | |
| CORE SPRAY A N5A CSAD-1 | 6A | UT | CSAD-1 | 80-73 | NONE | NONE | INSULATION 2:00 TO 4:00 & 8:00 TO 10:00 |
| | | UT | | 80-76 | NONE | NONE | NONE |
| | | UT | | 80-86 | NONE | SPOT 56%, 1/2" LONG 75% | NONE |
| | | UT | | 80-92 | NONE | NONE | NONE |
| | | UT | | 80-94 | NONE | NONE | NONE |

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|---|---|---|---|---|---|---|---|
| B1.6 NOZZLE TO SAFE END WELDS | | | | | | | |
| CORE SPRAY A CSAF-2 | 6A | UT | CSAF-2 | 80-175, | NONE | S-1, ID SPOT 20% S-2, ID GEO 50%, 60% | NONE |
| | | | SAFE END | 80-175A | -- | NONE | NONE |
| | | PT | CSAF-2 | 80-64 | NONE | 1/4" linear | NONE |
| | | | | 80-64R | NONE | NONE-INDICATION BLENDED OUT | NONE |
| CORE SPRAY B CSBF-2 | 6B | UT | CSBF-2 | 80-176, | NONE | NONE | NONE |
| | | | SAFE END | 80-176A | NONE | NONE | NONE |
| | | PT | CSAF-2 | 80-56 | NONE | NONE | NONE |
| CONTROL ROD HYDRAULIC RETURNS CRAF-2 | 10 | UT | CRAF-2 | 80-181 | NONE | NONE | NONE |
| | | PT | | 80-167 | -- | 1/8" LINEAR | NONE |
| | | | | 80-167R | -- | NONE-INDICATION BLENDED OUT | NONE |

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|---|---|---|---|---|---|---|---|
| B4.1 SAFE END TO PIPING AND SAFE END IN BRANCH IN PIPING WELDS | | | | | | | |
| CORE SPRAY A CSAF-10 | 6A | UT | CSAF-10 | 80-103 | NONE | S-2, ID GEO, 30% | NONE |
| | | PT | | 80-71 | -- | NONE | NONE |
| CSAF-14 | 6A | UT | CSAF-14 | 80-88 | NONE | NONE | NONE |
| | | PT | | 80-72 | -- | NONE | NONE |
| CSAF-18 | 6A | UT | CSAF-18 | 80-89 | NONE | NONE | NONE |
| | | PT | | 80-70 | -- | NONE | NONE |
| CORE SPRAY B CSBF-9 | 6B | UT | CSBF-9 | 80-66 | NONE | NONE | S-2,11:00 to 1:00, RESTRAINT, 4:00 TO 8:00, E.I.R. |
| | | PT | | 80-59 | -- | NONE | NONE |
| RESIDUAL HEAT REMOVAL RHBF-20 | 11B | UT | RHBF-20 | 80-106 | -- | S-1, ID GEO, 45% | NONE |
| | | PT | | 80-79 | -- | NONE | NONE |
| RHBF-24 | 11B | UT | RHBF-24 | 80-105 | -- | S-2, ID GEO, 40% | S-2, LIMITED 4:00 TO 6:00, HANGER |
| | | PT | | 80-82 | -- | NONE | NONE |

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|---|---|---|---|---|---|---|---|
| B4.1 Continued | | | | | | | |
| RHCF-20 | 11C | UT | RHCF-20 | 80-104 | NONE | S-2, ID & OD GEO, 40% | NONE |
| | | PT | | 80-81 | -- | NONE | NONE |
| B4.5 CIRCUMFERENTIAL AND LONGITUDINAL WELDS | | | | | | | |
| MAINSTEAM A MSAJ-24 | 1 | UT | MSAJ-24 | 80-198 | NONE | NONE | NO S-2, FLANGE |
| MAINSTEAM B MSBJ-30 | 2 | UT | MSBJ-30 | 80-107 | PROBABLE MISMATCH | S-1, ID GEO, 30% S-2, ID GEO, 50% | NONE |
| MAINSTEAM C MSCJ-4 | 3 | UT | MSCJ-4 | 80-131 | PROBABLE MISMATCH | S-2, ID GEO, 50% | NONE |
| MSCJ-11 | 3 | UT | MSCJ-11 | 80-109 | NONE | S-2, ID GEO, 35% | NONE |
| MSCJ-23 | 3 | UT | MSCJ-23 | 80-108 | PROBABLE MISMATCH | NONE | NONE |
| MAINSTEAM D MSDJ-3 | 4 | UT | MSDJ-3 | 80-125 | PROBABLE MISMATCH & WELD PREP | S-2, ID GEO, 25% | NONE |
| MSDJ-10 | 4 | UT | MSDJ-10 | 80-113 | NONE | NONE | S-1, 11:00 TO 1:00, ELBOW I. R. |

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|---|---|---|---|---|---|---|---|
| B4.5 Continued | | | | | | | |
| MSDJ-28 | 4 | UT | MSDJ-28 | 80-199 | NONE | S-1, OD GEO, 55%, 360° INTERMITTENT<br>S-2, OD GEO, 50%, 360° INTERMITTENT | NONE |
| CORE SPRAY A<br>CSAJ-2A | 6A | UT | CSAJ-2A | 80-168 | S-1, ID GEO 100% DAC, 8"<br>S-2, ID GEO 50%<br>S-3, ID GEO 50% | S-1, 2:00 TO 3:00 3-1/2" LONG, 150%, 9:00, SPOT, 150% | NONE |
| | | UT | SAFE END | 80-168A | -- | S-1, 2, THREADS 70% | NONE |
| CSAJ-3 | 6A | UT | CSAJ-3 | 80-87 | S-2, 100% DAC/GEO | S-1, ID GEO, 90%<br>S-2, ID GEO, 75% | S-2, REDUCER |
| CSAJ-4 | 6A | UT | CSAJ-4 | 80-90 | NONE | NONE | NO S-2, HANGER |
| CSAJ-5 | 6A | UT | CSAJ-5 | 80-91 | NONE | NONE | S-1, 2, 3, 4 HANGER |
| CSAJ-8 | 6A | UT | CSAJ-8 | 80-67 | NONE | S-1, OD GEO, 46% | S-1, 4:00 to 8:00, IR<br>S-2, 12:00, BRANCH CONNECTION |
| CSAJ-9 | 6A | UT | CSAJ-9 | 80-68 | NONE | NONE | S-2, 4:30 TO 7:30, HANGER |
| CSAJ-13 | 6A | UT | CSAJ-13 | 80-83 | NONE | S-1, ID GEO, 60% | NO S-2, ADJACENT WELD |

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|---|---|---|---|---|---|---|---|
| B4.5 Continued | | | | | | | |
| CORE SPRAY B<br>CSBJ-2A | 6B | UT | CSBJ-2A | 80-170 | NONE | S-1, IMPEDANCE MISMATCH, 30%<br>S-2, THREADS, 40% | NONE |
| | | UT | SAFE END | 80-170A | NONE | S-1, 2 THREADS, 45% | NONE |
| CSBJ-3 | 6B | UT | CSBJ-3 | 80-55 | S-4, 40% DAC/SPOT | NONE | S-2, REDUCER |
| CSBJ-4 | 6B | UT | CSBJ-4 | 80-53 | S-1, 50% DAC/SPOT | NONE | NONE |
| CSBJ-5 | 6B | UT | CSBJ-5 | 80-65 | NONE | NONE | S-1, 2, 3, 4,HANGER ON WELD |
| CSBJ-8 | 6B | UT | CSBJ-8 | 80-54 | NONE | NONE | NONE |
| CSBJ-10 | 6B | UT | CSBJ-10 | 80-84 | NONE | NONE | NO S-1, VALVE |
| RESIDUAL HEAT REMOVAL<br>RHAJ-20 | 11A | UT | RHAJ-20 | 80-112 | NONE | NONE | NO S-1, VALVE |
| RHAJ-21 | 11A | UT | RHAJ-21 | 80-115 | NONE | NONE | NONE |
| RHCJ-1 | 11C | UT | RHCJ-1 | 80-148 | NONE | NONE | S-1, 11:00 TO 1:00, ELBOW I. R.<br>NO S-2, TEE |

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| B4.5 Continued | | | | | | | |
| RECIRCULATION A | | | | | | | |
| RCAJ-4 | 13A | UT | RCAJ-4 | 80-164 | NONE | S-1, ID & OD GEO, <50% | NONE |
| RCAJ-6 | 13A | UT | RCAJ-6 | 80-174 | NONE | S-1, ID GEO, 50% | S-2, CONFIGURATION |
| RCAJ-9 | 13A | UT | RCAJ-9 | 80-171 | NONE | NONE | S-1, CONFIGURATION NO S-2, METAL BAND |
| RCAJ-35 | 13A | UT | RCAJ-35 | 80-179 | NONE | NONE | NO S-1, METAL BAND |
| RECIRCULATION B | | | | | | | |
| RCBJ-4 | 13B | UT | RCBJ-4 | 80-173 | NONE | NONE | NONE |
| RCBJ-31 | 13B | UT | RCBJ-31 | 80-180 | NONE | NONE | NONE |
| | | UT | | 80-180A | NONE | S-12, ID GEO,40% | NO SCAN 6:00 TO 8:00 INSULATION BAND |
| RCBJ-34 | 13B | UT | RCBJ-34 | 80-172 | NONE | NONE | S-1, BAND 4" BELOW WELD S-2, CONFIGURATION |
| RECIRCULATION BYPASS A | | | | | | | |
| RBAJ-M3 | 13AA | UT | RBAJ-M3 | 80-160 | NONE | NONE | S-2, 11:00 TO 1:00, TEE |
| RBAJ-M15 | 13AA | UT | RBAJ-M15 | 80-153 | NONE | NONE | S-1, 2:00 TO 4:00, ELBOW I. R. |

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|---|---|---|---|---|---|---|---|
| B4.5 Continued | | | | | | | |
| RECIRCULATION BYPASS B | | | | | | | |
| RBBJ-M3 | 13BB | UT | RBBJ-M3 | 80-162 | NONE | NONE | S-2, 10:30 TO 1:30, TEE |
| RBBJ-M18 | 13BB | UT | RBBJ-M18 | 80-152 | NONE | NONE | NONE |
| RECIRCULATION MANIFOLD | | | | | | | |
| RMAJ-7 | 13C | UT | RMAJ-7 | 80-133 | NONE | NONE | NO S-1, TEE |
| RMAJ-8 | 13C | UT | RMAJ-8 | 80-149 | NONE | NONE | S-1, 2, 3, 4, WELD CONFIGURATION |
| RMAJ-10 | 13C | UT | RMAJ-10 | 80-134 | NONE | S-2, ID GEO 360°, 50% S-5, ID GEO SPOT, 30% | NO S-1, TEE |
| RECIRCULATION RISERS | | | | | | | |
| RISER F | | | | | | | |
| RRFJ-7 | 13C | UT | RRFJ-7 | 80-166 | NONE | S-2, ID GEO, 80% OD GEO, 70% S-5, 6, ID GEO, 70%, OD GEO, 100% | NO S-1, CONFIGURATION |
| RISER H | | | | | | | |
| RRHJ-7 | 13C | UT | RRHJ-7 | 80-135 | NONE | S-1, ID GEO, 360°, 50% S-2, OD GEO, 360°, 80% S-4, OD GEO SPOT, 40% | NONE |
| | | UT | | 80-158 | -- | NONE | NONE |

FORM NO. ISI-1004

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON CLASS I



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| B4.6 BRANCH PIPE CONNECTIONS EXCEEDING SIX INCH DIAMETER | | | | | | | |
| RECIRCULATION MANIFOLD RMAJ-3 | 13C | UT | RMAJ-3 | 80-165 | NONE | NONE | NO S-2, CONFIGURATION |
| B4.7 BRANCH PIPE CONNECTION WELDS SIX INCH DIAMETER AND SMALLER | | | | | | | |
| MAINSTEAM A MSAJ-23 | 1 | MT | MSAJ-23 | 80-183 | -- | NONE | NONE |
| MAINSTEAM C MSCJ-18 | 3 | MT | MSCJ-18 | 80-182 | -- | NONE | NONE |
| RECIRCULATION A RBAJ-2 | 13AA | UT | RBAJ-2 | 80-163 | NONE | NONE | NO S-1, CONFIGURATION |
| | | PT | | 80-169 | -- | NONE | NONE |
| RBAJ-16 | 13AA | UT | RBAJ-16 | 80-151 | NONE | NONE | NO S-2, CONFIGURATION |
| | | PT | | 80-157 | -- | NONE | NONE |
| RECIRCULATION B RBBJ-2 | 13BB | UT | RBBJ-2 | 80-161 | NONE | NONE | NO S-1, CONFIGURATION |
| | | PT | | 80-159 | -- | NONE | NONE |

NORTHERN STATES POWER COMPANY
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BASELINE COMPARISON CLASS I



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| B4.7 Continued | | | | | | | |
| RBBJ-19 | 13BB | UT | RBBJ-19 | 80-150 | NONE | NONE | NO S-2, CONFIGURATION |
| | | PT | | 80-156 | -- | NONE | NONE |
| B4.8 SOCKET WELDS | | | | | | | |
| REACTOR VESSEL BOTTOM HEAD DRAIN | | | | | | | |
| HDAJ-41 | 21 | MT | HDAJ-41 | 80-100 | -- | NONE | NONE |
| HDAJ-45 | 21 | MT | HDAJ-45 | 80-100 | -- | NONE | NONE |
| HDAJ-46 | 21 | MT | HDAJ-46 | 80-100 | -- | NONE | NONE |
| B4.9 INTEGRALLY WELDED SUPPORTS | | | | | | | |
| MAINSTEAM C | | | | | | | |
| MSCK-7 | 3 | UT | MSCK-7 | 80-132 | -- | NONE | NONE |
| | | MT | | 80-130 | -- | NONE | NONE |
| | | VT | | 80-128 | -- | NONE | NONE |
| MAINSTEAM D | | | | | | | |
| MSDK-32 | 4 | UT | MSDK-32 | 80-110 | -- | NONE | 2 LUGS INSULATED |
| | | MT | | 80-101 | -- | NONE | 2 LUGS INSULATED |
| | | VT | | 80-127 | -- | NONE | 2 LUGS INSULATED |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON CLASS I



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| B4.9 Continued | | | | | | | |
| RESIDUAL HEAT REMOVAL RHAK-22 | 11A | UT | RHAK-22 | 80-114 | -- | NONE | NONE |
| | | MT | | 80-136 | -- | NONE | NONE |
| | | VT | | 80-129 | -- | NON-CONFORMING HANGER | NONE |
| | | VT | | 80-129R | | HANGER DESIGN RE-EVALUATED | NONE |
| RECIRCULATION A PSSA-5 | 13A | VT | PSSA-5 | 80-137 | -- | NONE | NONE |
| B4.10 SUPPORT COMPONENTS | | | | | | | |
| MAINSTEAM B - MSBK-17 | 2 | VT | MSBK-17 | 80-46 | -- | LOOSE NUT | NONE |
| | | VT | | 80-46R | | NONE; NUT TIGHTENED | NONE |
| MAINSTEAM D MSDK-15 | 4 | VT | MSDK-15 | 80-47 | -- | NONE | NONE |
| FEED WATER A FWAK-26 | 5A | VT | FWAK-26 | 80-44 | -- | NONE | NONE |
| FEED WATER D FWDK-14 | 14 | VT | FWDK-14 | 80-45 | -- | NONE | BOTTOM BOLTS INSULATED |
| CORE SPRAY B CSBK-6 | 6B | VT | CSBK-6 | 80-62 | -- | LOOSE NUT | NONE |
| | | VT | | 80-62R | -- | NONE; NUT TIGHTENED | NONE |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| B4.10 Continued | | | | | | | |
| REACTOR WATER CLEAN UP | | | | | | | |
| CWAK-15 | 9 | VT | CWAK-15 | 80-63 | -- | LOOSE NUT | NONE |
| | | VT | | 80-63R | -- | NONE-NUT TIGHTENED | NONE |
| RESIDUAL HEAT REMOVAL | | | | | | | |
| RHCK-9 | 11C | VT | RHCK-9 | 80-39 | -- | NONE | NONE |
| RHCK-10 | 11C | VT | RHCK-10 | 80-38 | -- | NONE | NONE |
| RECIRCULATION A | | | | | | | |
| RCAK-29 | 13A | VT | RCAK-29 | 80-146 | -- | NONE | NONE |
| RCAK-22A | 13A | VT | RCAK-22A | 80-147 | -- | NONE | NONE |
| RECIRCULATION B | | | | | | | |
| RCBK-12 | 13B | VT | RCBK-12 | 80-144 | -- | NONE | NONE |
| RCBK-20A | 13B | VT | RCBK-20A | 80-143 | -- | NONE | NONE |
| RECIRCULATION BYPASS (A&B) | | | | | | | |
| RBAK-10 | 13AA | VT | RBAK-10 | 80-145 | -- | LOOSE BOLT | NONE |
| | | VT | | 80-145R | -- | NONE-BOLT TIGHTENED | NONE |
| RBBK-14 | 13BB | VT | RBBK-14 | 80-142 | -- | LOOSE NUT | NONE |
| | | VT | | 80-142R | -- | NONE-NUT TIGHTENED | NONE |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON CLASS I



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| B4.10 Continued | | | | | | | |
| RECIRCULATION MANIFOLD A | | | | | | | |
| RMAK-6A | 13C | VT | RMAK-6A | 80-48 | -- | NONE | NONE |
| RMAK-17 | 13C | VT | RMAK-17 | 80-49 | -- | NONE | NONE |
| RECIRCULATION MANIFOLD B | | | | | | | |
| RMBK-4A | 13D | VT | RMBK-4A | 80-42 | -- | NONE | NONE |
| RMBK-6 | 13D | VT | RMBK-6 | 80-43 | -- | NONE | NONE |
| RMBK-17 | 13D | VT | RMBK-17 | 80-41 | -- | NONE | NONE |
| RECIRCULATION B RISER D | | | | | | | |
| RRDK-6 | 13D | VT | RRDK-6 | 80-40 | -- | NONE | NONE |
| CRD SCRAM HEADER | | | | | | | |
| CDAK-12 | 24A | VT | CDAK-12 | 80-20 | -- | NONE | NONE |
| CDAK-24 | 24A | VT | CDAK-24 | 80-21 | -- | NONE | NONE |
| CDAK-37 | 24A | VT | CDAK-37 | 80-19 | -- | LOOSE NUT | NONE |
| | | VT | | 80-19R | -- | NONE; NUT TIGHTENED | NONE |
| B4.12 PRESSURE RETAINING BOLTING | | | | | | | |
| MAINSTEAM C | | | | | | | |
| MSCJ-19 | 3 | VT | MSCJ-19 | 80-188 | -- | NONE | NONE |
| MAINSTEAM D | | | | | | | |
| MSDJ-19 | 4 | VT | MSDJ-19 | 80-187 | -- | NONE | NONE |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON CLASS I



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| B4.12 Continued | | | | | | | |
| MSDJ-23 | 4 | VT | MSDJ-23 | 80-186 | -- | NONE | NONE |
| MSDJ-25 | 4 | VT | MSDJ-25 | 80-185 | -- | NONE | NONE |
| MSDJ-28 | 4 | VT | MSDJ-28 | 80-184 | -- | NONE | NONE |
| RECIRCULATION A RCAJ-20 | 13A | VT | RCAJ-20 | 80-190 | -- | NONE | NONE |
| RECIRCULATION BYPASS B RBBJ-M5 | 13BB | VT | RBBJ-M5 | 80-189 | -- | NONE | NONE |
| B6.7 VALVE BODIES | | | | | | | |
| MAINSTEAM A - A02-86A | 1 | VT | A02-86A | 80-126 | -- | NONE | NONE |
| B6.9 PRESSURE RETAINING BOLTING | | | | | | | |
| MAINSTEAM C A02-80C | 3 | VT | A02-80C | 80-99 | -- | NONE | NONE |
| MAINSTEAM D A02-86D | 4 | VT | A02-86D | 80-26 | -- | NONE | NONE |
| CORE SPRAY A POS-1758 | 6A | VT | POS-1758 | 80-102 | -- | NONE | NONE |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON CLASS I



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| B6.9 Continued | | | | | | | |
| REACTOR WATER CLEAN UP MO-2397 | 9 | VT | MO-2397 | 80-98 | -- | NONE | NONE |
| RESIDUAL HEAT REMOVAL MO-2015 | 11B | VT | MO-2015 | 80-80 | -- | NONE | NONE |
| REACTOR CORE INJECTION COOLANT MO-2075 | 12 | VT | MO-2075 | 80-96 | -- | NONE | NONE |
| BOTTOM HEAD DRAIN XDV-4 | 21 | VT | XDV-4 | 80-97 | -- | NONE | NONE |

NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
ISOMETRIC SUMMARY CLASS 1



| NSP ISO NUMBER | REVISION | COMPONENT OR SYSTEM | LOOP | LINE SIZE | LINE NUMBER | UT - CAL. STANDARD |
|---|---|---|---|---|---|---|
| ISI-1 | 0 | MAIN STEAM | A | 18" | PS1-18" ED | 8 |
| | | | A | 2" | PS15A-2" ED | - |
| | | | A | 6" | PSI-6" ED | 6 |
| ISI-2 | 0 | MAIN STEAM | B | 18" | PS2-18" ED | 8 |
| | | | B | 2" | PS15B-2" ED | - |
| | | | B | 6" | PS2-6" ED | 6 |
| ISI-3 | 0 | MAIN STEAM | C | 18" | PS3-18" ED | 8 |
| | | | C | 2" | PS15-C-2" ED | - |
| | | | C | 6" | PS3-6" ED | 6 |
| ISI-4 | 0 | MAIN STEAM | D | 18" | PS4-18" ED | 8 |
| | | | D | 2" | PS15D-2" ED | - |
| | | | D | 6" | PS4-6" ED | 6 |
| ISI-5A | 0 | FEEDWATER | A&B | 10" | FW2B-10" ED | 28 |
| | | | A&B | 14" | FW2B-14" ED | 23 |
| ISI-5B | 0 | FEEDWATER | C&D | 10" | FW2A-10" ED | 28 |
| | | | C&D | 14" | FW2A-14" ED | 23 |
| ISI-6A | 0 | CORE SPRAY | A | 8" | TW7-8" ED | 5 |
| | | | A | 8" | TW7-8" EF | 11/36 |
| ISI-6B | 0 | CORE SPRAY | B | 8" | TW11-8" ED | 5 |
| | | | B | 8" | TW11-8" EF | 11/36 |
| ISI-7 | 0 | HIGH PRESSURE COOLANT INJECTION-STEAM | - | 8" | PS18-8" ED | 5/11 |
| ISI-9 | 0 | REACTOR WATER CLEANUP | - | 4" | REW3-4" ED | 4 |
| | | | | | REW3-4" EF | 12-2 |
| ISI-10 | 0 | REACTOR VESSEL NOZZLE #9 (CRD7-3" EF REROUTED AND N9 CAPPED) | - | 3" | CAPPED | 18 |

NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
ISOMETRIC SUMMARY CLASS 1

TABLE III


| NSP ISO NUMBER | REVISION | COMPONENT OR SYSTEM | LOOP | LINE SIZE | LINE NUMBER | UT - CAL. STANDARD |
|---|---|---|---|---|---|---|
| ISI-11A | 0 | RESIDUAL HEAT REMOVAL | A | 18" | REW10-18" ED | 8 |
| | | | A | 18" | REW10-18" EF | 25 |
| ISI-11B | 0 | RESIDUAL HEAT REMOVAL | B | 16" | TW20-16" DB | 10 |
| | | | B | 16" | TW20-16" DC | 24 |
| | | | B | 18" | TW20-18" DC | 25 |
| ISI-11C | 0 | RESIDUAL HEAT REMOVAL | A | 16" | TW30-16" DB | 10 |
| | | | A | 16" | TW30-16" DC | 24 |
| | | | A | 18" | TW30-18" DC | 25 |
| ISI-11D | 0 | RESIDUAL HEAT REMOVAL | - | 4" | TW36-4" ED | 4 |
| ISI-12 | 0 | REACTOR CORE INJECTION COOLANT-STEAM | - | 3" | PS17-3" ED | 1 |
| ISI-13A | 0 | RECIRCULATION | A | 28" | REW13A-28" | 27 |
| ISI-13A- | 0 | (RECIRCULATION PUMP A SUPPORTS) | A | 4" | REW26-4" | 12-2 |
| SHT.2 | | | A | 2" | REW28-2" EF | - |
| ISI-13AA | 0 | RECIRCULATION A BYPASS | A | 4" | REW24-4" | 12-2 |
| ISI-13B | 0 | RECIRCULATION | B | 28" | REW13B-28" | 27 |
| ISI-13B- | 0 | (RECIRCULATION PUMP B SUPPORTS) | B | 4" | REW27-4" | 12-2 |
| SHT.2 | | | B | 2" | REW29-2" EF | - |
| ISI-13BB | 0 | RECIRCULATION B BYPASS | B | 4" | REW25-4" | 12-2 |
| ISI-13C | 0 | RECIRCULATION MANIFOLD | A | 22" | REW32-22" | 26 |
| | | RISER F | | 12" | REW14-12" | 22 |
| | | RISER G | | 12" | REW15-12" | 22 |
| | | RISER H | | 12" | REW16-12" | 22 |
| | | RISER J | | 12" | REW17-12" | 22 |
| | | RISER K | | 12" | REW18-12" | 22 |

NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
ISOMETRIC SUMMARY CLASS 1



| NSP ISO NUMBER | REVISION | COMPONENT OR SYSTEM | LOOP | LINE SIZE | LINE NUMBER | UT - CAL. STANDARD |
|---|---|---|---|---|---|---|
| ISI-13D | 0 | RECIRCULATION MANIFOLD | B | 22" | REW32-22" | 26 |
| | | RISER A | | 12" | REW23-12" | 22 |
| | | RISER B | | 12" | REW22-12" | 22 |
| | | RISER C | | 12" | REW21-12" | 22 |
| | | RISER D | | 12" | REW20-12" | 22 |
| | | RISER E | | 12" | REW19-12" | 22 |
| ISI-14 | 0 | HEAD SPARE | - | - | N6B | 3 |
| ISI-15 | 0 | HEAD VENT | - | - | N7 | 3 |
| ISI-16 | 0 | JET PUMP INSTRUMENTATION | A&B | - | N8A & N8B | - |
| ISI-17 | 0 | STANDBY LIQUID CONTROL | - | 2" | N10 | - |
| ISI-18 | 0 | INSTRUMENT NOZZLES | A&B | - | N11A & N11B | - |
| ISI-19 | 0 | INSTRUMENT NOZZLES | A&B | - | N12A & N12B | - |
| ISI-21 | 0 | BOTTOM HEAD DRAIN | - | 2" | REW31-2" ED | 16 |
| ISI-22 | 0 | STANDBY LIQUID CONTROL | - | 1½" | CH2-1½" DC | 17 |
| | | | | 1½" | CH2-1½" EF | |
| ISI-23 | 0 | MAIN STREAM CONDENSATE LEAKOFF | - | 3" | PS15-3" EB | 1 |
| | | | - | 3" | PS15-3" ED | 1 |
| ISI-24A | 0 | CRD SCRAM HEADER | A | 8" | CRD26A-8" DB | 5 |
| | | | | 4" | CRD15A-4" DB | 4 |
| | | | | 6" | CRD14A-6" DB | 6 |
| | | | | 4" | CRD13A-4" DB | 4 |

NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
ISOMETRIC SUMMARY CLASS 1



| NSP ISO NUMBER | REVISION | COMPONENT OR SYSTEM | LOOP | LINE SIZE | LINE NUMBER | UT - CAL. STANDARD |
|---|---|---|---|---|---|---|
| ISI-24B | 0 | CRD SCRAM HEADER | B | 8" | CRD26B-8" DB | 5 |
| | | | | 4" | CRD15B-4" DB | 4 |
| | | | | 6" | CRD14B-6" DB | 6 |
| | | | | 4" | CRD13B-4" DB | 4 |
| ISI-24C | 0 | CRD SCRAM HEADER DISCHARGES | - | 12" | CRD18-12" DB | 29 |
| | | | | 2" | CRD18-2" DB | - |
| | | | | 2" | CRD16B-2" DB | - |
| | | | | 2" | CRD16A-2" DB | - |
| ISI-25 | 0 | VALVE BYPASS LINES | A | 2" | VB5-2" | - |
| | | | B | 2" | VB6-2" | - |
| FIGURE 1 | 0 | CONTROL ROD DRIVE LOCATION AND HOUSING WELD | - | - | - | - |
| FIGURE 2 | 0 | CIRCUMFERENTIAL AND LONGITUDINAL VESSEL WELDS | - | - | - | RPV #1 |
| FIGURE 3 | 0 | REACTOR VESSEL STUD, WASHER AND LIGAMENT LOCATION | - | - | - | STUD-14 |
| FIGURE 4 | 0 | REACTOR VESSEL NOZZLE LOCATIONS AND IDENTIFICATION | - | - | - | RPV#1/30 |
| FIGURE 5 | 0 | REACTOR VESSEL HEAD WELDS | - | - | - | - |
| FIGURE 6 | 0 | REACTOR VESSEL CIRCUMFERENTIAL SEAM WELDS | - | - | - | RPV#1 |
| FIGURE 7 | 0 | REACTOR VESSEL BOTTOM HEAD NOZZLE LOCATION | - | - | - | - |

# APPENDIX B

## ASME CLASS 2 - EXAMINATION

NORTH...N STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION–EXAMINATION SUMMARY

TABLE S2.1
PAGE 1 OF 1
MAJOR ITEM: PRESSURE VESSELS

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C1.1 | C-A | CIRCUMFERENTIAL BUTT WELDS | - | - | - | | THREE ARE NO ITEMS INVOLVED IN CLASS 2 SYSTEMS REQUIRED FOR SCHEDULING TO 1WC-2600 UNDER PRESSURE VESSELS |
| C1.2 | C-B | NOZZLE TO VESSEL WELDS | - | - | - | | |
| C1.3 | C-C | INTEGRALLY WELDED SUPPORTS | - | - | - | | |
| C1.4 | C-D | PRESSURE RETAINING BOLTING | - | - | - | | |

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NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION–EXAMINATION SUMMARY

TABLE S2.2.1
PAGE 1 OF 3
MAJOR ITEM: PIPING-CIRCUMFERENTIAL BUTT WELDS

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C2.1 | C-G | CIRCUMFERENTIAL BUTT WELDS | | | | | |
| | | HIGH PRESSURE COOLANT INJECTION-WATER SIDE | | | | | |
| | | TW3-12" ED | THREE | 1 | 1 | CIAJ-63 | 80-36-51,52 |
| | | HIGH PRESSURE COOLANT INJECTION-STEAM SIDE | | | | | |
| | | PS18-8" ED | THREE | 1 | 1 | TDAJ-1 | 80-37 |
| | | PS18-6" ED | – | – | – | | |
| | | -STEAM DISCHARGE | | | | | |
| | | RS2-18" HE | – | – | – | | |
| | | RS2-16" HE | THREE | 1 | 1 | TDBJ-9 | 80-75 |
| | | RS2-20" HE | – | – | – | | |
| | | CORE SPRAY A | | | | | |
| | | TW7-8" ED | – | – | – | | |
| | | TW7-10" GE | THREE | 1 | 1 | CSAJ-39 | 80-34 |
| | | CORE SPRAY B | | | | | |
| | | TW11-8" ED | – | – | – | | |
| | | TW11-10" GE | – | – | – | | |
| | | CONTAINMENT PURGE | | | | | |
| | | CP1-18" HE | – | – | – | | |
| | | CP2-18" HE | – | – | – | | |
| | | RHR SERVICE WATER | | | | | |
| | | SW9-8" GE | THREE | 2 | 2 | SWAJ-1,2 | 80-27,28 |
| C2.1 | C-F | CIRCUMFERENTIAL BUTT WELDS | | | | | |
| | | MAIN STEAM A | | | | *1978 BASELINE | |
| | | PS1-18" ED | THREE | 4 | 4* | MSAJ-R54A,R54B | 78-119,6 |
| | | | | | | MSAJ-R54C,R54D | 78-8,114 |
| | | | THREE | 1 | 1 | MSAJ-46 | 80-57 |

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FORM NO. ISI-1002

PP12-B-20

NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION–EXAMINATION SUMMARY

TABLE S2.2.1
PAGE 2 OF 3
MAJOR ITEM: PIPING–CIRCUMFERENTIAL BUTT WELDS

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C2.1 | C-F | (CONT'D) | | | | | |
| | | MAIN STEAM B | | | | *1978 BASELINE | |
| | | PS2-18" ED | THREE | 2 | 2* | MSBJ-R52A,R52B | 78-117,117R,116 |
| | | | THREE | 1 | 1 | MSBJ-45 | 80-58 |
| | | MAIN STEAM C | | | | | |
| | | PS3-18" ED | THREE | 2 | 2* | MSCJ-R52A,R52B | 78-113,115 |
| | | MAIN STEAM D | | | | | |
| | | PS4-18" ED | THREE | 2 | 2* | MSDJ-R54A,R54B | 78-111,112 |
| | | SUPPLY TO STEAM SEAL SYSTEM | | | | | |
| | | PS11-6" ED | THREE | – | 3* | SSAJ-R1,R2,R3 | 78-14,19,120 |
| | | PS12-6" ED | | | – | | |
| | | PS13-6" ED | – | – | – | | |
| | | PS14-6" ED | THREE | 1 | 1 | SSDJ-6 | 80-204 |
| | | SUPPLY TO STEAM SEAL SYSTEM | | | | | |
| | | PS10-5" | THREE | 2 | 2 | SSAJ-43,44,46 | 80-200,197,203 |
| | | PS7-10" ED | THREE | 1 | 1 | SSAJ-42 | 80-205 |
| | | PS7-8" ED | – | – | – | | |
| | | HIGH PRESSURE COOLANT INJECTION-WATER SIDE | | | | | |
| | | TW3-12" ED | – | – | – | | |
| | | FEEDWATER A | | | | | |
| | | FW2A-14" ED | THREE | 1 | 1 | FWAJ-40 | 80-35,35A,35B 35C,35D,50,50R 111,120,120A,120B, 120C |

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NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION–EXAMINATION SUMMARY

TABLE S2.2.1
PAGE 3 OF 3
MAJOR ITEM: PIPING-CIRCUMFERENTIAL BUTT WELDS

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C2.1 | C-F | (CONT'D) | | | | | |
| | | FEEDWATER B | | | | | |
| | | FW2B-14" ED | – | – | – | | |
| | | REACTOR WATER FROM SKIMMER SYSTEM | | | | | |
| | | REW11-8" HE | THREE | 2 | 2 | RWAJ-5,6 | 80-29,30 |
| | | MAIN STEAM EQUALIZER | | | | *1978 BASELINE | |
| | | PS30-18" EDB | THREE | 21 | 21 | MSEJ-1,2 | 78-4,118 |
| | | | | | | MSEJ-3,4 | 78-1,2 |
| | | | | | | MSEJ-7,8 | 78-7,82 |
| | | | | | | MSEJ-10,11 | 78-12,10 |
| | | | | | | MSEJ-12,13 | 78-13,11 |
| | | | | | | MSEJ-14,15 | 78-85,85R,9 |
| | | | | | | MSEJ-16,17 | 78-16,15 |
| | | | | | | MSEJ-18,19 | 78-18,83 |
| | | | | | | MSEJ-20,21 | 78-17,20 |
| | | | | | | MSEJ-22,25,26 | 78-84,5,3 |
| | | | THREE | 2 | 2 | MSEJ-14,16 | 80-202,201 |
| | | 10" DRIP LEG | THREE | 2 | 2 | MSEJ-5,6 | 78-22,21 |

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NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION—EXAMINATION SUMMARY

TABLE S2.2.2
PAGE 1 OF 1
MAJOR ITEM: PIPING-LONGITUDINAL BUTT WELDS

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C2.2 | C-G | LONGITUDINAL WELD JOINTS IN FITTINGS | - | - | - | - | THERE ARE NO ITEMS IN CLASS 2 SYSTEMS |
| C2.2 | C-F | | | | | | |

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TM12-R-23

NORTH. .N STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION—EXAMINATION SUMMARY

TABLE S2.2.3
PAGE 1 OF 1
MAJOR ITEM: PIPING-BRANCH WELDS

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C2.3 | C-G | BRANCH PIPE TO PIPE WELD JOINTS | - | - | - | - | THERE ARE NO ITEMS IN CLASS 2 SYSTEMS |
| C2.3 | C-F | (SWEEPOLETS) | | | | | |

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NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION—EXAMINATION SUMMARY

TABLE S2.2.4
PAGE 1 OF 1
MAJOR ITEM: PIPING-PRESSURE RETAINING BOLTIN

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C2.4 | C-D | PRESSURE RETAINING BOLTING | - | - | - | - | THERE ARE NO ITEMS IN CLASS 2 SYSTEMS REQUIRED FOR SCHEDULING |

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NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION—EXAMINATION SUMMARY

TABLE S2.2.5
PAGE 1 OF 2
MAJOR ITEM: PIPING-INTEGRALLY WELDED SUPPORT

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C2.5 | C-E-1 | INTEGRALLY WELDED SUPPORTS | | | | | |
| | | MAIN STEAM A PS1-18" ED | THREE | 1 | 1 | MSAK-59A | 80-116,192 |
| | | MAIN STEAM B PS2-18" ED | - | - | - | | |
| | | MAIN STEAM C PS3-18" ED | - | - | - | | |
| | | MAIN STEAM D PS4-18" ED | - | - | - | | |
| | | SUPPLY TO STEAM SEAL SYSTEM PS14-6" ED | - | - | - | | |
| | | HIGH PRESSURE COOLANT INJECTION-WATER SIDE TW3-12" ED | THREE | 1 | 1 | CIAK-31 | 80-5,32 |
| | | HIGH PRESSURE COOLANT INJECTION-STEAM SIDE PS18-8" ED | - | - | - | | |
| | | HIGH PRESSURE COOLANT INJECTION -STEAM DISCHARGE- RS2-16" HE | THREE | 1 | 1 | TDBK-11 | 80-117,196 |
| | | CORE SPRAY A TW7-8" GE | - | - | - | | |
| | | TW7-10" GE | THREE | 1 | 1 | CSAK-52 | 80-4,31 |

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NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION–EXAMINATION SUMMARY

TABLE S2.2.5
PAGE 2 OF 2
MAJOR ITEM: PIPING-INTEGRALLY WELDED SUPPORT

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C2.5 | C-E-1 | (CONT'D) | | | | | |
| | | CORE SPRAY B | | | | | |
| | | TW11-8" GE | - | - | - | | |
| | | TW11-10" GE | - | - | - | | |
| | | REACTOR WATER FROM SKIMMER SYSTEM | | | | | |
| | | REW11-8" HE | THREE | 2 | 2 | RWAK-8,11 | 80-10,33,23,25 |
| | | RESIDUAL HEAT REMOVAL SERVICE WATER | | | | | |
| | | SW9-8" GE | - | - | - | | |

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NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION—EXAMINATION SUMMARY

TABLE S2.2.6
PAGE 1 OF 2
MAJOR ITEM: PIPING-SUPPORT COMPONENTS

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C2.6 | C-E-2 | SUPPORT COMPONENTS | | | | | |
| | | MAIN STEAM A PS1-18" ED | THREE | 1 | 1 | MSAK-45 | 80-17-17R |
| | | MAIN STEAM B PS2-18" ED | - | - | - | | |
| | | MAIN STEAM C PS3-18" ED | - | - | - | | |
| | | MAIN STEAM D PS4-18" ED | THREE | 1 | 1 | MSDK-47 | 80-16 |
| | | SUPPLY TO STEAM SEAL SYSTEM | | | | | |
| | | PS11-6" ED | THREE | 1 | 1 | SSAK-9 | 80-194 |
| | | PS12-6" ED | - | - | - | | |
| | | PS13-6" ED | - | - | - | | |
| | | PS14-6" ED | - | - | - | | |
| | | PS7-10" ED | THREE | 2 | 2 | SSAK-25,40 | 80-195,193 |
| | | PS7-8" ED | - | - | - | | |
| | | HIGH PRESSURE COOLANT INJECTION-WATER SIDE TW3-12" ED | THREE | 3 | 3 | CIAK-40,48A,50 | 80-11,61,8 |
| | | HIGH PRESSURE COOLANT INJECTION-STEAM SIDE PS18-8" ED | THREE | 4 | 4 | TDAK-5,11,33,34 | 80-15,18,6,60 |
| | | HIGH PRESSURE COOLANT INJECTION-STEAM DISCHARGE RS2-16" HE | THREE | 2 | 2 | TDBK-7,8 | 80-2,1 |

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NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION—EXAMINATION SUMMARY

TABLE S2.2.6
PAGE 2 OF 2
MAJOR ITEM: PIPING-SUPPORT COMPONENTS

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C2.6 | C-E-2 | (CONT'D) | | | | | |
| | | CORE SPRAY A | | | | | |
| | | TW7-10" GE | THREE | 1 | 1 | CSAK-47 | 80-24 |
| | | TW7-8" ED | - | - | - | | |
| | | CORE SPRAY B | | | | | |
| | | TW11-10" GE | - | - | - | | |
| | | TW11-8" ED | THREE | 1 | 1 | CSBK-29A | 80-14 |
| | | REACTOR WATER FROM SKIMMER SYSTEM | | | | | |
| | | REW11-8" HE | THREE | 1 | 1 | RWAK-14 | 80-22,22R |
| | | CONTAINMENT PURGE | | | | | |
| | | (A) CP1-18" HE | THREE | 1 | 1 | PCAK-2 | 80-7 |
| | | CONTAINMENT PURGE | | | | | |
| | | (B) CP2-18" HE | - | - | - | | |
| | | RHR SERVICE WATER | | | | | |
| | | SW9-8" GE | THREE | 4 | 4 | SWAK-31,34,54,57 | 80-12,9,13,13R,3 |
| | | MAIN STEAM EQUALIZER | | | | | |
| | | PS30-18" EDB | THREE | 1 | 1 | MSEK-9 | 80-191 |

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NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION–EXAMINATION SUMMARY

TABLE S2.3
PAGE 1 OF 1
MAJOR ITEM: PUMPS

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C3.1 | C-G AND | PUMPS | – | – | – | | THERE ARE NO ITEMS WITH SEAMED CASTINGS |
| C3.1 | C-F | PUMP CASING WELDS | – | – | – | | |
| C3.2 | C-D | PRESSURE RETAINING BOLTING | – | – | – | | THERE IS NO BOLTING GREATER THAN 1" DIA. |
| C3.3 | C-E-1 | INTEGRALLY WELDED SUPPORTS | – | – | – | | SUPPORTS UNDER S2.2.5 |
| C3.4 | C-E-2 | SUPPORT COMPONENTS | – | – | – | | SUPPORTS UNDER S2.2.6 |

NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
INSERVICE INSPECTION—EXAMINATION SUMMARY

TABLE S2.4
PAGE 1 OF 1
MAJOR ITEM: VALVES

| SUB ITEM | EXAM CATE-GORY | COMPONENT OR SYSTEM AND DESCRIPTION OF ITEM TO BE EXAMINED | INSP. PER. | REQ'D. AMT. | AMT. EXAM | ITEM IDENTIFICATION | INSPECTION REPORT NO. |
|---|---|---|---|---|---|---|---|
| C4.1 | C-G AND | VALVES | - | - | - | | THERE ARE NO ITEMS WITH SEAMED CASINGS |
| C4.1 | C-F | VALVE BODY WELDS | - | - | - | | |
| C4.2 | C-D | PRESSURE RETAINING BOLTING | | | | | |
| | | MAIN STEAM | | | | | |
| | | STOP VALVE A | THREE | 100% | - | (V) | |
| | | PS1-18" ED | - | - | - | (UT) | |
| | | STOP VALVE B | - | - | - | (V) | |
| | | PS2-18" ED | THREE | 10% | - | (UT) | |
| | | STOP VALVE C | - | - | - | (V) | |
| | | PS3-18" ED | - | - | - | (UT) | |
| | | STOP VALVE D | - | - | - | (V) | |
| | | PS4-18" ED | - | - | - | (UT) | |
| | - | BYPASS CONTROL VALVES | | | | | |
| | | PS7-8" ED | | | | | |
| | | NO. 11 | THREE | 100% | - | (V) | |
| | | NO. 12 | THREE | 100% | - | (UT) | |
| C4.3 | C-E-1 | INTEGRALLY WELDED SUPPORTS | - | - | - | | SUPPORTS UNDER S2.2.5 |
| C4.4 | C-E-2 | SUPPORT COMPONENTS | - | - | - | | SUPPORTS UNDER S2.2.5 |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON CLASS II



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| C2.1 CIRCUMFERENTIAL BUTT WELDS | | | | | | | |
| HIGH PRESSURE COOLANT INJECTION-WATER SIDE CIAJ-63 | 31 | UT | CIAJ-63 | 80-51 | -- | NONE | NO S-2, TEE |
| BASE METAL | | UT | | 80-52 | -- | NONE | NONE |
| | | MT | | 80-36 | -- | NONE | NONE |
| HIGH PRESSURE COOLANT INJECTION-STEAM SIDE TDAJ-1 | 32 | UT | TDAJ-1 | 80-37 | NONE | S-2, GEO, < 50%, GEO, 60% | NO S-1, VALVE |
| -STEAM DISCHARGE TDBJ-9 | 33 | UT | TDBJ-9 | 80-75 | -- | S-2, GEO 360°, 50% | NO S-1, HANGER |
| CORE SPRAY A CSAJ-39 | 34 | UT | CSAJ-39 | 80-34 | -- | NONE | NONE |
| RHR SERVICE WATER SWAJ-1 | 39 | UT | SWAJ-1 | 80-27 | -- | NONE | NO S-1, VALVE<br>S-2, ELBOW I. R. |
| SWAJ-2 | 39 | UT | SWAJ-2 | 80-28 | -- | NONE | S-1, ELBOW I. R. |
| MAINSTEAM A MSAJ-46 | 26 | UT | MSAJ-46 | 80-57 | -- | S-2, ID GEO, 40% | NONE |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON CLASS II



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| C2.1 Continued | | | | | | | |
| MAINSTEAM B MSBJ-45 | 27 | UI | MSBJ-45 | 80-58 | -- | S-1, ID GEO, 80% S-2, ID GEO, 100 | NONE |
| SUPPLY TO STEAM SEAL SYSTEM SSAJ-42 | 30 | UT | SSAJ-42 | 80-205 | -- | S-1, GEO @ 10:00 40% S-2, ID & OD GEO @ 9:00 TO 11:00, 30%/40% | S-2, REDUCER |
| SSAJ-43 | 30 | UT | SSAJ-43 | 80-200 | -- | NONE | NO S-1, FLANGE |
| SSAJ-44 | 30 | UT | SSAJ-44 | 80-197 | -- | S-4, @ 9:30, 125% | S-2, 7:00 TO 10:00, ELBOW I. R. |
| SSAJ-46 | 30 | UT | SSAJ-46 | 80-203 | -- | NONE | NO S-2, REDUCER |
| SSDJ-6 | 30 | UT | SSDJ-6 | 80-204 | -- | NONE | NONE |
| FEEDWATER B FWAJ-40 & BASE METAL | 37 | UT | FWAJ-40 | 80-50 | -- | S-1, O.D 2-1/2" LONG, 130% | NONE |
| | | UT | | 80-50R | -- | S-1, GEO FROM WELD | NONE |
| BASE METAL | | UT | | 80-111 | -- | NONE | S-1, 2, 3, 4, 11:30 TO 12:30, BEAM |

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NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON CLASS II



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| C2.1 Continued | | | | | | | |
| BASE METAL | | MT | | 80-35 | -- | NONE | 5" INSULATED |
| BASE METAL | | MT | | 80-35A | -- | 2-7/8" LINEAR | 5" INSULATED |
| BASE METAL | | MT | | 80-35D | -- | NONE; INDICATION BLENDED OUT | NONE |
| BASE METAL | | MT | | 80-120 | -- | 1" LINEAR | BEAM INTERFERENCE |
| BASE METAL | | MT | | 80-120B | -- | NONE; INDICATION BLENDED OUT | NONE |
| BASE METAL | | PT | | 80-35B | -- | 2-7/8" LINEAR | NONE |
| BASE METAL | | PT | | 80-35C | -- | NONE; INDICATION BLENDED OUT | NONE |
| BASE METAL | | PT | | 80-120A | -- | 1" LINEAR | BEAM INTERFERENCE |
| BASE METAL | | PT | | 80-120C | -- | NONE; INDICATION BLENDED OUT | NONE |
| REACTOR WATER FROM SKIMMER SYSTEM | | | | | | | |
| RWAJ-5 | 36 | UT | RWAJ-5 | 80-29 | -- | NONE | NO S-1, FLANGE |
| RWAJ-6 | 36 | UT | RWAJ-6 | 80-30 | -- | NONE | NONE |
| MAINSTEAM EQUALIZER | | | | | | | |
| MSEJ-14 | 40 | UT | MSEJ-14 | 80-202 | NONE | S-1, ID GEO 360°, < 20% | NO S-2, TEE |
| MSEJ-16 | 40 | UT | MSEJ-16 | 80-201 | NONE | NONE | NO S-2, TEE |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON CLASS II



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| C2.5 INTEGRALLY WELDED SUPPORTS | | | | | | | |
| MAINSTEAM A MSAK-59A | 26 | MT | MSAK-59A | 80-116 | -- | NONE | NONE |
| | | VT | | 80-192 | -- | NONE | NONE |
| HIGH PRESSURE COOLANT INJECTION-WATER SIDE CIAK-31 | 31 | MT | CIAK-31 | 80-32 | -- | NONE | 16" NO EXAM, NEXT TO PENETRATION |
| | | VT | | 80-5 | -- | NONE | NONE |
| -STEAM DISCHARGE TDBK-11 | 33 | MT | TDBK-11 | 80-196 | -- | NONE | NONE |
| | | VT | | 80-117 | -- | NONE | NONE |
| CORE SPRAY A CSAK-52 | 34 | MT | CSAK-52 | 80-31 | -- | NONE | NONE |
| | | VT | | 80-4 | -- | NONE | NONE |
| REACTOR WATER FROM SKIMMER SYSTEM RWAK-8 | 36 | MT | RWAK-8 | 80-33 | -- | NONE | NONE |
| | | VT | | 80-10 | -- | NONE | NONE |
| RWAK-11 | 36 | MT | RWAK-11 | 80-25 | -- | NONE | NONE |
| | | VT | | 80-23 | -- | NONE | NONE |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON CLASS II



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| C2.6 SUPPORT COMPONENTS | | | | | | | |
| MAINSTEAM A MSAK-45 | 26 | VT | MSAK-45 | 80-17 | -- | LOOSE BOLT | NONE |
| | | VT | | 80-17R | -- | NONE; BOLT TIGHTENED | NONE |
| MAINSTEAM D MSDK-47 | 29 | VT | MSDK-47 | 80-16 | -- | NONE | NONE |
| SUPPLY TO STEAM SEAL SYSTEM SSAK-9 | 30 | VT | SSAK-9 | 80-194 | -- | NONE | NONE |
| SSAK-25 | 30 | VT | SSAK-25 | 80-195 | -- | NONE | NONE |
| SSAK-40 | 30 | VT | SSAK-40 | 80-193 | -- | NONE | NONE |
| HIGH PRESSURE COOLANT INJECTION-WATER SIDE CIAK-40 | 31 | VT | CIAK-40 | 80-11 | -- | NONE | NONE |
| CIAK-48A | 31 | VT | CIAK-48A | 80-61 | -- | NONE | NONE |
| CIAK-50 | 31 | VT | CIAK-50 | 80-8 | -- | NONE | NONE |
| -STEAM SIDE TDAK-5 | 32 | VT | TDAK-5 | 80-15 | -- | NONE | NONE |
| TDAK-11 | 32 | VT | TDAK-11 | 80-18 | -- | NONE | NONE |
| TDAK-33 | 32 | VT | TDAK-33 | 80-6 | -- | NONE | NONE |
| TDAK-34 | 32 | VT | TDAK-34 | 80-60 | -- | NONE | NONE |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON CLASS II



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| C2.6 Continued | | | | | | | |
| -STEAM DISCHARGE | | | | | | | |
| TDBK-7 | 33 | VT | TDBK-7 | 80-2 | -- | NONE | NONE |
| TDBK-8 | 33 | VT | TDBK-8 | 80-1 | -- | NONE | NONE |
| CORE SPRAY A | | | | | | | |
| CSAK-47 | 34 | VT | CSAK-47 | 80-24 | -- | NONE | NONE |
| CORE SPRAY B | | | | | | | |
| CSBK-29A | 35 | VT | CSBK-29A | 80-14 | -- | NONE | NONE |
| REACTOR WATER FROM SKIMMER SYSTEM | | | | | | | |
| RWAK-14 | 36 | VT | RWAK-14 | 80-22 | -- | LOOSE NUT & DWG. COMPLIANCE | NONE |
| | | VT | | 80-22R | -- | NONE; NUT TIGHTENED. HANGER RE-EVALUATED | NONE |
| CONTAINMENT PURGE | | | | | | | |
| PCAK-2 | 38 | VT | PCAK-2 | 80-7 | -- | NONE | NONE |
| RHR SERVICE WATER | | | | | | | |
| SWAK-31 | 39 | VT | SWAK-31 | 80-12 | -- | NONE | NONE |
| SWAK-34 | 39 | VT | SWAK-34 | 80-9 | -- | NONE | NONE |
| SWAK-54 | 39 | VT | SWAK-54 | 80-13 | -- | MISSING SUPPORT BLOCK | NONE |
| | | VT | | 80-13R | -- | NONE; SUPPORT BLOCK REPLACED | NONE |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
BASELINE COMPARISON CLASS II



| COMPONENT/SYSTEM | NSP ISO | NDE METHOD | BASELINE IDENT. | REPORT NO. | BASELINE INDICATIONS | ISI INDICATIONS | EXAMINATION LIMITATIONS |
|---|---|---|---|---|---|---|---|
| C2.6 Continued | | | | | | | |
| SWAK-57 | 39 | VT | SWAK-57 | 80-3 | -- | NONE | NONE |
| MAINSTEAM EQUALIZER MSEK-9 | 40 | VT | MSEK-9 | 80-191 | -- | NONE | NONE |

NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
ISOMETRIC SUMMARY CLASS 2

TABLE III


| NSP ISO NUMBER | REVISION | COMPONENT OR SYSTEM | LOOP | LINE SIZE | LINE NUMBER | UT - CAL. STANDARD |
|---|---|---|---|---|---|---|
| ISI-26 | 1 | MAIN STEAM | A | 18" | PSI-18" ED | 8 |
| ISI-27 | 1 | MAIN STEAM | B | 18" | PS2-18" ED | 8 |
| ISI-28 | 1 | MAIN STEAM | C | 18" | PS3-18" ED | 8 |
| ISI-29 | 1 | MAIN STEAM | D | 18" | PS4-18" ED | 8 |
| ISI-30 | 1 | SUPPLY TO STEAM SEAL SYSTEM | - | 6" | PS14-6" ED | 6 |
| | | | | 6" | PS13-6" ED | 6 |
| | | | | 6" | PS12-6" ED | 6 |
| | | | | 6" | PS11-6" ED | 6 |
| | | | | 5" | PS10-5" | 34 |
| | | | | 10" | PS7-10" ED | 28 |
| | | | | 8" | PS7-8" ED | 21 |
| ISI-31 | 0 | HIGH PRESSURE COOLANT INJECTION - WATER SIDE | - | 12" | TW3-12" ED | 29/NO___ |
| ISI-32 | 0 | HIGH PRESSURE COOLANT INJECTION - STEAM SIDE | - | 8" | PS18-8" ED | 5 |
| | | | | 6" | PS18-8" ED | 6 |
| ISI-33 | 0 | HIGH PRESSURE COOLANT INJECTION STEAM SIDE DISCHARGE | - | 20" | RS2-20" HE | NO___ |
| | | | | 18" | RS2-18" HE | NO___ |
| | | | | 16" | RS2-16" HE | 31 |
| ISI-34 | 0 | CORE SPRAY | A | 8" | TW7-8" ED | 5 |
| | | | A | 10" | TW7-10" GE | 32 |
| ISI-35 | 0 | CORE SPRAY | B | 8" | TW11-8" ED | 5 |
| | | | B | 10" | TW11-10" GE | 32 |
| ISI-36 | 0 | REACTOR WATER FROM SKIMMER SYSTEM | - | 8" | REW11-8" HE | 33 |

NORTHERN STATES POWER CO.
MONTICELLO NUCLEAR GENERATING PLANT
ISOMETRIC SUMMARY CLASS 2



| NSP ISO NUMBER | REVISION | COMPONENT OR SYSTEM | LOOP | LINE SIZE | LINE NUMBER | UT - CAL. STANDARD |
|---|---|---|---|---|---|---|
| ISI-37 | 0 | FEEDWATER | A | 14" | FW2A-14" ED | 23 |
| | | | B | 14" | FW2B-14" ED | 23 |
| ISI-38 | 0 | CONTAINMENT PURGE LINES | A | 18" | CPI-18" HE | NO |
| | | | B | 18" | CP2-18" HE | NO |
| ISI-39 | 0 | RHR SERVICE WATER | - | 8" | SW9-8" GE | 33 |
| ISI-40 | 0 | MAIN STEAM EQUALIZING HEADER | - | 18" | PS30-18" EDB | 8 |
| | | | | 10" | DRIPLEG | 28 |

# APPENDIX C

TABLE I - PERSONNEL LISTING

TABLE II - ULTRASONIC CALIBRATION BLOCKS

TABLE III - PROCEDURE LISTING

TABLE IV - EQUIPMENT AND MATERIALS

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
PERSONNEL LISTING

APPENDIX C
TABLE I


| EXAMINER | TITLE | ORGANIZATION | CERTIFICATION LEVEL UT | PT | MT | VT | ET |
|---|---|---|---|---|---|---|---|
| T. J. Boyers | Technician | LMT (4) | I | - | - | - | - |
| G. M. Bratton | Technician | LMT | II | - | - | - | - |
| D. A. Gonzalez | Technician | LMT | II | II | - | II(2b) | - |
| M. E. Gustely | Technician | LMT | - | II | II | II(2b) | - |
| R. A. Kellerhall | Technician | LMT | II | II | II | II(2b) | - |
| E. L. Lake | Technician | LMT | II | - | - | - | - |
| R. W. Pechacek | Technician | LMT | II | II | II | II(2b) | - |
| E. L. Thomas | Supervisor | LMT | III | III | III | II(2a, b) | I |
| W. M. Tighe | Technician | LMT | I | - | - | - | - |
| A. S. Whealdon | Technician | LMT | II | II | II | II(2b) | - |
| R. D. Ballou | Technician | G. E. (3) | - | - | - | II | - |
| J. A. McGee | Technician | G. E. | - | - | - | II | - |
| S. R. Radebaugh | Technician | G. E. | - | - | - | II | - |
| H. P. Smith | Technician | G. E. | - | - | - | II | - |
| L. C. Dahlman | M&SP Specialist | NSP | | | | | |
| D. B. Hansen | Asst M&SP Eng. | NSP | III | II | II | II(2a, b) | - |
| P. J. Krumpos | Supt M&SP | NSP | | | | | |
| F. Brusseau | ANII | Hartford Steam Boiler Inspection & Insurance Co. | | | | | |

FOOTNOTES:
(1) Level I Trainee
(2a) Certified by NSP to preform visual determination of structural integrity for hanger assemblies in accordance with NSP-VT-2.
(2b) Inspection experience and NDE qualifications were judged to be adequate to preform visual examinations in accordance with NSP-VT-1.
(3) Organization: General Electric (G. E.)
1500 Lilac Drive So.
Minneapolis, MN 55416
(4) Organization: Lambert, McGill, Thomas, Inc. (LMT)
771 East Brokaw Rd.
San Jose, CA 95112

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
ULTRASONIC CALBRATION BLOCKS



| NSP NO. | SIZE & DIA. | PIPE SCHEDULE & THICKNESS | | MATERIAL | SERIAL OR HEAT NUMBER | CALIBRATION REPORTS | DATE |
|---|---|---|---|---|---|---|---|
| 5 | 8" | SCH. 80 | .500" | A 106B C/S | N53114 | RK-2 | 2-25-80 |
| | | | | | | RK-7 | 2-29-80 |
| 6 | 6" | SCH. 80 | .432" | A 53B C/S | (40IN-1726) | ELL-4 | 3-15-80 |
| | | | | | | ELL-7 | 3-17-80 |
| 8 | 18" | SCH. 80 | | A 106B C/S | (122491) | AW-3 | 3-4-80 |
| | | | | | | AW-4 | 3-5-80 |
| | | | | | | AW-5 | 3-6-80 |
| | | | | | | ELL-5 | 3-18-80 |
| | | | | | | MB-2 | 3-3-80 |
| | | | | | | RK-4 | 2-26-80 |
| 11 | 8" | SCH. 80 | .500" | 304 S/S | 15885 | AW-1 | 2-27-80 |
| | | | | | | RK-3 | 2-26-80 |
| | | | | | | RK-5 | 2-27-80 |
| | | | | | | RK-6 | 2-28-80 |
| 12-2 | 4" | SCH. 80 | .337" | 304 S/S | 7-73280 | AW-10 | 3-10-80 |
| | | | | | | AW-11 | 3-11-80 |
| 18 | 3" | SCH. 160 | .438" | A 312 S/S | 01598 | BP-9 | 3-14-80 |
| 22 | 12" | SCH. 80 | .688" | 304 S/S | 658905 | BP-5 | 3-11-80 |
| | | | | | | DAG-2 | 3-10-80 |
| | | | | | | MB-6 | 3-7-80 |
| 23 | 14" | SCH. 100 | .937" | A106B C/S | 7137 | BP-3 | 3-11-80 |
| | | | | | | ELT-2 | 2-26-80 |
| | | | | | | MB-3 | 3-4-80 |
| 24 | 16" | SCH. 80 | .843" | 304 S/S | 27DH136 | MB-1 | 3-3-80 |
| 25 | 18" | SCH. 80 | .937" | 304 S/S | 27DH136 | AW-8 | 3-8-80 |
| 26 | 22" | SCH. 80 | 1.125" | 304 S/S | 10093 | MB-5 | 3-7-80 |
| 27 | 28" | SCH. 80 | 1.187" | 304 S/S | 10093 | AW-9 | 3-8-80 |
| | | | | | | AW-12 | 3-11-80 |
| | | | | | | AW-13 | 3-13-80 |
| | | | | | | AW-14 | 3-12-80 |
| | | | | | | AW-15 | 3-14-80 |
| | | | | | | BP-4 | 3-11-80 |
| | | | | | | ELL-1 | 3-15-80 |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
ULTRASONIC CALBRATION BLOCKS



| NSP NO. | SIZE AND DIA. | PIPE SCHEDULE & THICKNESS | | MATERIAL | SERIAL OR HEAT NUMBER | CALIBRATION REPORTS | DATE |
|---|---|---|---|---|---|---|---|
| 28 | 10" | SCH. 80 | .593" | A 106B C/S | N35898 | BP-10 | 3-17-80 |
| 29 | 12" | SCH. 80 | .687" | A 106B C/S | L24489 | ELT-3 | 2-26-80 |
| 30 | 5 -5/16" | - | - | A 533B C/S | C5571 | BP-1 | 3-10-80 |
| | | | | | | BP-2 | 3-10-80 |
| | | | | | | BP-7 | 3-13-80 |
| | | | | | | BP-8 | 3-12-80 |
| | | | | | | ELT-4 | 2-29-80 |
| | | | | | | ELT-6 | 3-1-80 |
| | | | | | | ELT-7 | 3-5-80 |
| | | | | | | ELT-8 | 3-6-80 |
| 31 | 16" | SCH. 30 | .375" | A 106B C/S | L80611 | ELT-5 | 2-28-80 |
| 32 | 10" | SCH. 40 | .365" | A 106B C/S | 8024 | ELT-1 | 2-23-80 |
| 33 | 8" | SCH. 40 | .322" | A 106B C/S | L62508 | RK-1 | 2-23-80 |
| 34 | 5" | SCH. 80 | .375" | A 106B C/S | N72615 | ELL-3 | 3-17-80 |
| | | | | | | ELL-6 | 3-18-80 |
| 36 | SAFE END | SAFE END | STANDARD | B 166 INCONEL 600 | BGM | BP-6 | 3-13-80 |
| | | | | | | ELT-9 | 3-13-80 |
| RPV #1 | 5 -5/16" + CLAD | - | - | A 533 B C/S | C2220/1 | AW-2 | 3-3-80 |
| | | | | | | AW-6 | 3-7-80 |
| | | | | | | AW-7 | 3-7-80 |
| | | | | | | MB-4 | 3-6-80 |
| | | | | | | RK-8 | 2-29-80 |
| | | | | | | RK-9 | 3-1-80 |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
PROCEDURE LISTING



| PROCEDURE NUMBER AND REVISION | FIELD CHANGE | PROCEDURE TITLE | PLANT APPROVAL DATE | FIELD CHANGE REMARKS | CHANGE DESCRIPTION |
|---|---|---|---|---|---|
| NSP-VT-1, REV. 1 | NONE | VISUAL EXAMINATION | 2-18-80 | NONE | |
| NSP-VT-2, REV. 1 | NONE | VISUAL EXAMINATION OF ASSEMBLED HANGER ASSEMBLIES | 2-18-80 | NONE | |
| NSP-VT-3, REV. 0 | NONE | VISUAL EXAMINATION OF PUMP AND VALVE INTERNAL PRESSURE BOUNDARY SURFACES | 2-25-80 | NONE | |
| NSP-VT-4, REV. 0 | 1 | VISUAL EXAMINATION OF MONTICELLO REACTOR VESSEL INTERIOR | 2-25-80 | NONE | TO REFERENCE ANSI N45.2.6 AS A DOCUMENT FOR PERSONNEL CERTIFICATION |
| NSP-PT-1, REV. 1 | NONE | LIQUID PENETRANT EXAMINATION | 2-18-80 | NONE | |
| NSP-MT-1, REV. 1 | NONE | MAGNETIC PARTICLE EXAMINATION, YOKE METHOD | 2-18-80 | NONE | |
| NSP-UT-1, REV. 0 | NONE | ULTRASONIC EXAMINATION OF PIPE WELDS | 2-18-80 | NONE | |
| NSP-UT-2, REV. 0 | NONE | AUTOMATIC DATA RECORDING | 2-18-80 | NONE | |
| NSP-UT-3, REV. 0 | NONE | ULTRASONIC EXAMINATION OF FERRITIC VESSEL WITH WALL THICKNESS 2.5" AND GREATER | 2-18-80 | NONE | |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
PROCEDURE LISTING



| PROCEDURE NUMBER AND REVISION | FIELD CHANGE | PROCEDURE TITLE | PLANT APPROVAL DATE | FIELD CHANGE REMARKS | CHANGE DESCRIPTION |
|---|---|---|---|---|---|
| NSP-UT-4, REV. 0 | NONE | ULTRASONIC EXAMINATION OF STUDS AND BOLTS | 2-18-80 | NONE | |
| NSP-UT-5, REV. 1 | NONE | ULTRASONIC EXAMINATION OF REACTOR VESSEL NOZZLE FORGING INNER RADIUS | 2-25-80 | NONE | |
| NSP-UT-6, REV. 1 | NONE | ULTRASONIC EXAMINATION OF REACTOR VESSEL NOZZLE BORE | 2-25-80 | NONE | |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
EQUIPMENT AND MATERIALS



| MATERIAL OR EQUIPMENT | TYPE OR SERIAL NUMBER | CALIBRATION DATE OR BATCH NUMBER | REMARKS |
|---|---|---|---|
| ULTRASONIC: | | | |
| NORTEC 130 D | S/N 130-63-D | CAL: 12-27-79 | |
| NORTEC 131 D | S/N 111 | CAL: 12-19-79 | |
| NORTEC 131 D | S/N 269 | CAL: 2-19-80 | |
| NORTEC 131 D | S/N 291 | CAL: 1-31-80 | |
| RECORDERS: | | | |
| GOULD 220 | S/N 3018 | CAL: 10-15-79 | |
| GOULD 220 | S/N 14012 | CAL: 12-07-79 | |
| GOULD 220 | S/N 14596 | CAL: 12-03-79 | |
| GOULD 220 | S/N 14642 | CAL: 2-14-80 | |
| TEMPERATURE GAUGES: | | | |
| PTC SURFACE THERMOMETERS | S/N 205 | CAL: 10-22-79 | CERTIFIED BY MANUFACTURER |
| | S/N 206 | CAL: 10-22-79 | |
| | S/N 207 | CAL: 10-22-79 | |
| | S/N 208 | CAL: 10-22-79 | |
| | S/N 209 | CAL: 10-22-79 | |
| | S/N 212 | CAL: 10-22-79 | |
| | S/N 215 | CAL: 11-14-79 | |
| | S/N 219 | CAL: 11-14-79 | |
| MAGNETIC PARTICLE: | | | |
| MAGNAFLUX YOKE | S/N LMT-100 | CAL: 2-22-80 | ON SITE QUALIFICATION |
| ROMPAS BLOCKS: | | | |
| 4140 C. S. | S/N 018 | *CERT. 1-03-79 | *BY ORLAS MACHINE SHOP |
| 4140 C. S. | S/N 019 | *CERT. 1-03-79 | |
| 304 S. S. | S/N 022 | CERT. 9-13-79 | |
| 304 S. S. | S/N 023 | CERT. 9-13-79 | |
| 304 S. S. | S/N 025 | CERT. 9-13-79 | |
| IIW | S/N 01 | CERT. 6-19-78 | |
| MATERIALS: | | | |
| ULTRASONIC COUPLANT | LMT-GEL | BATCH NO. LMT 111778 | |
| PENETRANT MAGNAFLUX SPOTCHECK | PENETRANT | BATCH NO. 5F086 | TYPE: SKL-HF/S |
| | DEVELOPER | BATCH NO. 78H032 | TYPE: SKD-NF |
| | CLEANER | BATCH NO. 5D044 | TYPE: SKC-NF |

NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
EQUIPMENT AND MATERIALS



| MATERIAL OR EQUIPMENT | TYPE OR SERIAL NUMBER | CALIBRATION DATE OR BATCH NUMBER | REMARKS |
|---|---|---|---|
| ULTRASONIC TRANSDUCERS: | | SIZE | FREQUENCY |
| AERO TECH | A18 | .5" x 1" | 2.25 MHZ |
| AERO TECH | L22501 | 1.5" | 1.0 MHZ |
| HARISONICS | P360 | .5" DIA. | 2.25 MHZ |
| HARISONICS | P362 | 1" DIA. | 2.25 MHZ |
| HARISONICS | P377 | .5" x .5" | 2.25 MHZ |
| HARISONICS | P921 | .5" x .5" | 2.25 MHZ |
| HARISONICS | P927 | 1.5" DIA. | 1.0 MHZ |
| HARISONICS | P928 | 1" x 1" | 1.0 MHZ |
| HARISONICS | P1104 | .25" x .25" | 5.0 MHZ |
| HARISONICS | P3108 | .750 DIA. | 2.25 MHZ |
| HARISONICS | Q412 | 1.0" x 1.0" | 1.0 MHZ |
| HARISONICS | Q603 | .25" DIA. | 5.0 MHZ |
| HARISONICS | Q1032 | .5" x .5" DUAL | 1.5 MHZ |
| HARISONICS | Q11113 | .375" x .375" | 3.5 MHZ |
| HARISONICS | Q11123 | .5" DIA. | 2.25 MHZ |
| HARISONICS | R1150 | .25" x .25" | 2.25 MHZ |
| HARISONICS | R10021 | .5" DIA. | 2.25 MHZ |
| HARISONICS | R12200 | .25" x .25" | 2.25 MHZ |
| HARISONICS | R12347 | .25" x .25" | 5.0 MHZ |
| HARISONICS | R30103 | .375 x .375" | 3.5 MHZ |
| MEGASONICS | 71095 | .5" DIA. | 1.0 MHZ |

# APPENDIX D

## FORM NIS-1

## OWNERS' DATA REPORT FOR INSERVICE INSPECTION

FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

(As Required by the Provisions of the ASME Code Rules)

1.) Owner Northern States Power Company

Address 414 Nicollet Mall, Minneapolis, Minnesota

2.) Plant Monticello Nuclear Generating Plant

Address Monticello, Minnesota

3.) Plant Unit 1 4.) Owner (Certificate of Authorization) ---

5.) Commercial Service Date 6-30-71 6.) National Board Number for Unit ---

7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| B1.0 REACTOR VESSEL | CB&I | B-4697 | | |
| B1.4 PRIMARY NOZZLE TO VESSEL WELD AND INNER RADIUS | | | | |
| NOZZLE (N3B) MSBD-1 | CB&I | --- | --- | --- |
| NOZZLE (N3D) MSDD-1 | CB&I | --- | --- | --- |
| NOZZLE (N4A) FWAD-1 | CB&I | --- | --- | --- |
| NOZZLE (N4B) FWBD-1 | CB&I | --- | --- | --- |
| NOZZLE (N4C) FWCD-1 | CB&I | --- | --- | --- |
| NOZZLE (N4D) FWDD-1 | CB&I | --- | --- | --- |
| NOZZLE (N5A) CSAD-1 | CB&I | --- | --- | --- |
| B1.6 NOZZLE TO SAFE END WELDS | | | | |
| CORE SPRAY A CSAF-2 | CB&I | --- | --- | --- |
| CORE SPRAY B CSBF-2 | CB&I | --- | --- | --- |
| CONTROL ROD (N9) HYDRAULIC RETURN CRAF-2 | BECHTEL | --- | --- | --- |

FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

(As Required by the Provisions of the ASME Code Rules)

1.) Owner Northern States Power Company

Address 414 Nicollet Mall, Minneapolis, Minnesota

2.) Plant Monticello Nuclear Generating Plant

Address Monticello, Minnesota

3.) Plant Unit 1 4.) Owner (Certificate of Authorization) ----

5.) Commercial Service Date 6-30-71 6.) National Board Number for Unit ----

7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| B1.15 & B1.16 VESSEL INTERIOR INTERIOR ATTACHMENTS AND CORE SUPPORT STRUCTURES | | | | |
| JET PUMP TOP ASSEMBLIES (20) | GENERAL ELECTRIC | ---- | ---- | ---- |
| BEAM BOLT KEEPER & TACH WELDS | | | | |
| LOCK PLATE | | | | |
| HOLD DOWN BEAM | | | | |
| INLET | | | | |
| UPPER SECTION OF TRANSITION PIECE | | | | |
| CORE SPRAY SPARGER SYSTEM (2) | GENERAL ELECTRIC | ---- | ---- | ---- |
| TEE JUNCTION BOX | | | | |
| PIPING AND WELDS | | | | |
| HEADER BRACKETS AND RECLAD AREAS | | | | |
| SPARGER PIPING, NOZZLES AND BRACKETS | | | | |
| FEEDWATER SPARGER SYSTEM | GENERAL ELECTRIC | ---- | ---- | ---- |
| SPARGER PIPING AND WELDS | | | | |
| END BRACKETS, BOLTING, AND RECLAD AREAS | | | | |
| BEARING BAR BRACKETS AND BOLTING | | | | |
| INNER RADIUS OF VESSEL AT NOZZLES | | | | |

FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

(As Required by the Provisions of the ASME Code Rules)

1.) Owner Northern States Power Company

Address 414 Nicollet Mall, Minneapolis, Minnesota

2.) Plant Monticello Nuclear Generapiny Plant

Address Monticello, Minnesota

3.) Plant Unit 1 4.) Owner (Certificate of Authorization) ---

5.) Commercial Service Date 6-30-71 6.) National Board Number for Unit ---

7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| B4.1 SAFE END TO PIPING AND SAFE END IN BRANCH PIPING WELDS | | | | |
| CORE SPRAY A CSAF-10, 14, 18 | BECHTEL | --- | --- | --- |
| CORE SPRAY B CSAF-9 | BECHTEL | --- | --- | --- |
| RESIDUAL HEAT REMOVAL TW20-16" DB RHBF-20, 24 | BECHTEL | --- | --- | --- |
| TW30-16" DB RHCF-20 | BECHTEL | --- | --- | --- |
| B4.5 CIRCUMFERENTIAL AND LONGITUDINAL WELDS | | | | |
| MAINSTEAM A PS1-6" ED MSAJ-24 | BECHTEL | --- | --- | --- |
| MAINSTEAM B PS2-18" ED MSBJ-30 | BECHTEL | --- | --- | --- |
| MAINSTEAM C PS3-18" ED MSCJ-4, 11,23 | BECHTEL | --- | --- | --- |
| MAINSTEAM D PS4-18" ED MSDJ-3, 10 | BECHTEL | --- | --- | --- |
| PS4-6" ED MSDJ-28 | BECHTEL | --- | --- | --- |

FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

(As Required by the Provisions of the ASME Code Rules)

1.) Owner Northern States Power Company

Address 414 Nicollet Mall, Minneapolis, Minnesota

2.) Plant Monticello Nuclear Generating Plant

Address Monticello, Minnesota

3.) Plant Unit 1 4.) Owner (Certificate of Authorization) ---

5.) Commercial Service Date 6-30-71 6.) National Board Number for Unit ---

7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| B4.5 Continued | | | | |
| CORE SPRAY A TW7-8" ED CSAJ-2A, 3, 4, 5, 8, 9, 13 | BECHTEL | --- | --- | --- |
| CORE SPRAY B TW11-8" ED CSBJ-2A, 3, 4, 5, 8, 10 | BECHTEL | --- | --- | --- |
| RESIDUAL HEAT REMOVAL REW10-18" ED RHAJ-20, 21 | BECHTEL | --- | --- | --- |
| TW30-16" DB RHCJ-1 | BECHTEL | --- | --- | --- |
| RECIRCULATION A REW13A-28" RCAJ-4, 6, 9, 35 | BECHTEL | --- | --- | --- |
| RECIRCULATION B REW13B-28" RCBJ-4, 31, 34 | BECHTEL | --- | --- | --- |
| RECIRCULATION BYPASS REW24-4" A RBAJ- M3, M15 | CHERNE | --- | --- | --- |
| REW25-4" B RBBJ- M3, M18 | CHERNE | --- | --- | --- |
| RECIRCULATION MANIFOLD REW 32-22" RMAJ-7, 8, 10 | BECHTEL | --- | --- | --- |

FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

(As Required by the Provisions of the ASME Code Rules)

1.) Owner Northern States Power Company

Address 414 Nicollet Mall, Minneapolis, Minnesota

2.) Plant Monticello Nuclear Generating Plant

Address Monticello, Minnesota

3.) Plant Unit 1 4.) Owner (Certificate of Authorization) ---

5.) Commercial Service Date 6-30-71 6.) National Board Number for Unit ---

7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| B4.5 Continued | | | | |
| RECIRCULATION RISERS | | | | |
| RISER F<br>RRFJ-7 | BECHTEL | --- | --- | --- |
| RISER H<br>RRHJ-7 | BECHTEL | --- | --- | --- |
| B4.6 BRANCH PIPE CONNECTION WELDS EXCEEDING SIX INCH DIAMETER | | | | |
| RECIRCULATION MANIFOLD A | | | | |
| RISER F, REW 32-22"<br>RMAJ-3 | BECHTEL | --- | --- | --- |
| B4.7 BRANCH PIPE CONNECTION WELDS SIX INCH DIAMETER AND SMALLER | | | | |
| MAINSTEAM A (6")<br>PS1-18" ED<br>MSAJ-23 | BECHTEL | --- | --- | --- |
| MAINSTEAM C (6")<br>PS3-18" ED<br>MSCJ-18 | BECHTEL | --- | --- | --- |
| RECIRCULATION BYPASS A<br>RBAJ-2, 16 | BECHTEL | --- | --- | --- |
| RECIRCULATION BYPASS B<br>RBBJ-2, 19 | BECHTEL | --- | --- | --- |
| B4.8 SOCKET WELDS | | | | |
| REACTOR VESSEL<br>BOTTOM HEAD<br>DRAIN (N15)<br>REW31-2" ED<br>HDAJ-41, 45, 46 | BECHTEL | --- | --- | --- |

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Address Monticello, Minnesota

3.) Plant Unit 1 4.) Owner (Certificate of Authorization) ---

5.) Commercial Service Date 6-30-71 6.) National Board Number for Unit ---

7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| B4.9 INTEGRALLY WELDED SUPPORTS | | | | |
| MAINSTEAM C PS3-18" ED MSCK-7 | BECHTEL | --- | --- | --- |
| MAINSTEAM D PS4-18" ED MSDK-32 | BECHTEL | --- | --- | --- |
| RESIDUAL HEAT REMOVAL REW10-18" ED RHAK-22 | BECHTEL | --- | --- | --- |
| RECIRCULATION A REW13A-28" PSSA-5 | BECHTEL | --- | --- | --- |
| B4.10 SUPPORT COMPONENTS | | | | |
| MAINSTEAM B PS2-18" ED MSBK-17 | BECHTEL | --- | --- | --- |
| MAINSTEAM D PS4-18" ED MSDK-15 | BECHTEL | --- | --- | --- |
| FEEDWATER A FW2B-14" ED FWAK-26 | BECHTEL | --- | --- | --- |
| FEEDWATER D FW2A-10" ED FWDK-14 | BECHTEL | --- | --- | --- |

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|---|---|---|---|---|
| B4.10 Continued | | | | |
| CORE SPRAY B TW11-8" EF CSBK-6 | BECHTEL | --- | --- | --- |
| REACTOR WATER CLEAN UP REW3-4" EF CWAK-15 | BECHTEL | --- | --- | --- |
| RESIDUAL HEAT REMOVAL TW30-16" DB RHCK-9, 10 | BECHTEL | --- | --- | --- |
| RECIRCULATION A REW13A-28" RCAK-22A, 29 | BECHTEL | --- | --- | --- |
| RECIRCULATION B REW13B-28" RCBK-12,20A | BECHTEL | --- | --- | --- |
| RECIRCULATION BYPASS (A & B) REW24-4" RBAK-10 | BECHTEL | --- | --- | --- |
| REW25-4" RBBK-14 | BECHTEL | --- | --- | --- |
| RECIRCULATION MANIFOLD A REW32-22" RMAK-6A, 17 | BECHTEL | --- | --- | --- |

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7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| B4.10 Continued | | | | |
| RECIRCULATION MANIFOLD B REW32-22" RMBK-4A, 6, 17 | BECHTEL | --- | --- | --- |
| RECIRCULATION RISERS MANIFOLD B RISER D, REW 20-12" RRDK-6 | BECHTEL | --- | --- | --- |
| CRD SCRAM HEADER A CRD 13A-4" DB CDAK-12 | BECHTEL | --- | --- | --- |
| CRD 14A-6" DB CDAK-24 | BECHTEL | --- | --- | --- |
| CRD 15A-4" DB CDAK-37 | BECHTEL | --- | --- | --- |
| B4.12 PRESSURE RETAINING BOLTING | | | | |
| MAINSTEAM C PS3-18" ED MSCJ-19 | BECHTEL | --- | --- | --- |
| MAINSTEAM D PS4-18" ED MSDJ-19, 23, 25, 28 | BECHTEL | --- | --- | --- |
| RECIRCULATION A REW26-4" RCAJ-20 | BECHTEL | --- | --- | --- |

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7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| B4.12 Continued | | | | |
| RECIRCULATION BYPASS B REW-25-4" RBBJ-M5 | BECHTEL | --- | --- | --- |
| B6.7 VALVE BODIES | | | | |
| MAINSTEAM A A02-86A | BECHTEL | --- | --- | --- |
| B6.9 PRESSURE RETAINING BOLTING | | | | |
| MAINSTEAM C PS3-18" ED A02-80C | BECHTEL | --- | --- | --- |
| MAINSTEAM D PS4-18" ED A02-86D | BECHTEL | --- | --- | --- |
| CORE SPRAY A TW7-8" EF POS-1758 | BECHTEL | --- | --- | --- |
| REACTOR WATER CLEANUP REW3-4" EF MO-2397 | BECHTEL | --- | --- | --- |
| RESIDUAL HEAT REMOVAL TW20-16" ED MO-2015 | BECHTEL | --- | --- | --- |

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7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| B6.9 Continued | | | | |
| REACTOR CORE INJECTION COOLANT-STEAM PS17-3" ED MO-2075 | BECHTEL | --- | --- | --- |
| BOTTOM HEAD DRAIN REW31-2" XDV-4 | BECHTEL | --- | --- | --- |

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7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| C2.1 CIRCUMFERENTIAL BUTT WELDS | | | | |
| HIGH PRESSURE COOLANT INJECTION WATER SIDE TW3-12" ED CIAJ-63 | BECHTEL | --- | --- | --- |
| HIGH PRESSURE COOLANT INJECTION STEAM SIDE PS18-8" ED TDAJ-1 | BECHTEL | --- | --- | --- |
| RS2-16" HE TDBJ-9 | BECHTEL | --- | --- | --- |
| CORE SPRAY A TW7-10" GE CSAJ-39 | BECHTEL | --- | --- | --- |
| RHR SERVICE WATER SW9-8" GE SWAJ-1, 2 | BECHTEL | | | |
| MAINSTEAM A PS1-18" ED MSAJ-46 | BECHTEL | --- | --- | --- |
| MAINSTEAM B PS2-18" ED MSBJ-45 | BECHTEL | --- | --- | --- |

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7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| C2.1 Continued<br>SUPPLY TO STEAM SEAL INJECTION<br>PS14-6" ED<br>SSDJ-6 | BECHTEL | --- | --- | --- |
| PS10-5"<br>SSAJ-43, 44, 46 | BECHTEL | --- | --- | --- |
| PS7-10" ED<br>SSAJ-42 | BECHTEL | --- | --- | --- |
| FEEDWATER A<br>FW2A-14" ED<br>FWAJ-40 | BECHTEL | --- | --- | --- |
| REACTOR WATER FROM SKIMMER SYSTEM<br>REW11-8" HE<br>RWAJ-5, 6 | BECHTEL | --- | --- | --- |
| MAIN STEAM EQUALIZER HDR.<br>MSEJ-14, 16 | BECHTEL | --- | --- | --- |



Form No. 3-3048-1

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7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| C2.5 INTEGRALLY WELDED SUPPORTS | | | | |
| MAINSTEAM A PS1-18" ED MSAK-59A | BECHTEL | --- | --- | --- |
| HIGH PRESSURE COOLANT INJECTION-WATER SIDE TW3-12" ED CIAK-31 | BECHTEL | --- | --- | --- |
| HIGH PRESSURE COOLANT INJECTION-STEAM DISCHARGE RS2-16" HE TDBK-11 | BECHTEL | --- | --- | --- |
| CORE SPRAY A TW7-10" GE CSAK-52 | BECHTEL | --- | --- | --- |
| REACTOR WATER FROM SKIMMER SYSTEM REW11-8" HE RWAK-8, 11 | BECHTEL | --- | --- | --- |
| C2.6 SUPPORT COMPONENTS | | | | |
| MAINSTEAM A PS1-18" ED MSAK-45 | BECHTEL | --- | --- | --- |

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7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| C2.6 Continued | | | | |
| MAINSTEAM D PS4-18" ED MSDK-47 | BECHTEL | --- | --- | --- |
| SUPPLY TO STEAM SEAL SYSTEM PS11-6" ED SSAK-9 | BECHTEL | --- | --- | --- |
| PS7-10" ED SSAK-25, 40 | BECHTEL | --- | --- | --- |
| HIGH PRESSURE COOLANT INJECTION-WATER SIDE TW3-12" ED CIAK-40, 48A, 50 | BECHTEL | --- | --- | --- |
| HIGH PRESSURE COOLANT INJECTION-STEAM SIDE PS18-8" ED TDAK-5, 11, 33, 34 | BECHTEL | --- | --- | --- |
| HIGH PRESSURE COOLANT INJECTION-STEAM DISCHARGE RS2-16" HE TDBK-7, 8 | BECHTEL | --- | --- | --- |

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7.) Components Inspected

| Component or Appurtenance | Manufacturer or Installer | Manufacturer or Installer Serial No. | State or Province No. | National Board No. |
|---|---|---|---|---|
| C2.6 Continued | | | | |
| CORE SPRAY A TW7-10" GE CSAK-47 | BECHTEL | --- | --- | --- |
| CORE SPRAY B TW11-8" GE CSBK-29A | BECHTEL | --- | --- | --- |
| REACTOR WATER FROM SKIMMER SYSTEM REW11-8" HE RWAK-14 | BECHTEL | --- | --- | --- |
| CONTAINMENT PURGE LINE A CP1-18" HE PCAK-2 | BECHTEL | --- | --- | --- |
| RESIDUAL HEAT REMOVAL SERVICE WATER SW9-8" GE SWAK 31, 34, 54, 57 | BECHTEL | --- | --- | --- |
| MAINSTEAM EQUALIZING HDR PS30-18" EDB MSEK-9 | BECHTEL | --- | --- | --- |

8.) Examination Dates 2-21-80 to 3-28-80 9.) Inspection Interval 6-30-71 to 6-30-81

10.) Abstract of Examinations.
This was the Second Inservice Inspection in the Third Inspection Period of the First Inspection Interval. Approximately 2/3 of the required examinations to be performed during the Third Period on the pressure retaining components and supports of the reactor coolant and associated auxiliary systems classified as ASME Class 1 was completed, and 100% of ASME Class 2 was also completed this outage. In addition, a visual examination was preformed on portions of the reactor vessel internal components.

11.) Abstract of Conditions Noted.
The examination results indicated that the integrity of these systems were maintained. The only anomalies detected were: two linear MT indications on Feedwater A base metal adjacent to weld FWAJ-40; two linear PT indications, one on Core Spray A weld CSAF-2, and one on Control Rod Drive nozzle to cap weld CRAF-2; loose bolts on hangers RBAK-10 on Recirculation Bypass A, and MSAK-45 on Mainsteam A; loose nuts on hangers MSBK-17 on Mainsteam B, CSBK-6 on Core Spray B, RBBK-14 on Recirculation Bypass B, CDAK-37 on CRD Scram Header A, and CWAK-15 on Reactor Water Clean Up; one missing support block on hanger SWAK-54 on RHR Service Water; two hangers that did not conform with the hanger drawings, RWAK-14 on Reactor Water Skimmer line, that also had a loose nut, and RHAK-22 on Residual Heat Removal Suction line, and the end bracket pin on Feedwater Sparger B, NW-N end of N4B was not properly seated and the keeper was bent.

12.) Abstract of Corrective Measures Recommended and Taken.
All anomalies were corrected. The linear MT indications on Feedwater A base metal were removed by lightly grinding the surface. The linear PT indications on Core Spray A and Control Rod Drive were removed by lightly buffing the surface. The loose nuts and bolts on Mainsteam A and B, Core Spray B, Reactor Water Clean Up, Recirculation Bypass A and B, and CRD Scram Header A hangers were all tightened. The missing support block on RHR Service Water hanger was replaced and welded in place. The drawings will be revised for the non-conforming hanger on Residual Heat Removal Suction line that was found to have the Mark No.'s and drawing No.'s out of sequence, and Reactor Water Skimmer hanger was reevaluated and found adequate for the design load. The end bracket pin and keeper on Feedwater Sparger B, NW-N end of N4B was repositioned in place. All indications were corrected and reexamined with the same method that originally located them. The above hangers will be reexamined during the next scheduled outage.

(Continued on next page)

We certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Date May 1 19 80 Signed Northern States Power By Douglas B Hansen
Owner

Certificate of Authorization No. (if applicable) N/A Expiration Date N/A

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of MINN. and employed by HARTFORD STM BLR INSP & INS. CO of HARTFORD CONN. have inspected the components described in this Owner's Data Report during the period 2/21/80 to 3/28/80, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owners' Data Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owners' Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date MAY 1 19 80

Francis P Brusseau Commissions NB 8828 MN 238
Inspector's Signature National Board, State, Province & No.