

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT  
SECOND 10-YEAR ISI PLAN

Rev. 0 Date 3/30/84

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— Gilbert / Commonwealth —

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## INTRODUCTION

This second 10-year inservice inspection (ISI) plan was prepared by the Operations Services Division of Gilbert/Commonwealth, Engineers & Consultants, Reading, Pennsylvania for the Kewaunee Nuclear Power Plant Unit 1. The Kewaunee plant which is located nine miles south of Kewaunee, Wisconsin on the western shore of Lake Michigan is operated by Wisconsin Public Service Corporation. Kewaunee is owned jointly by Wisconsin Public Service Corporation, Wisconsin Power & Light Company, and Madison Gas & Electric Company. The Kewaunee plant is a 540 megawatt, Westinghouse design, two loop pressurized water reactor which was placed into commercial operation in June 1974.

This plan fulfills the second 10-year ISI requirements specified by the Code of Federal Regulation 10CFR50.55a(g) with the exception of steam generator tube and snubber examinations and the pump and valve test program. The second interval starts 16 June 1984 and ends 16 June 1994.

As specified in 10CFR50.55a(g)(4)(ii), the ASME Code edition and addenda selected for the preparation and use of this plan during the second 10-year interval is the latest version incorporated by reference in 10CFR50.55a(b)(2) approved one year prior to the start of the second interval. On 16 June 1983, the 1980 Edition with addenda through Winter 1981 addenda (hereafter identified as 1980W1981) was the latest version of Section XI referenced in 10CFR50.55a(b)(2).

An exception to the use of the 1980W1981 Code (Section XI) is the use of the 1974 Edition with addenda through Summer 1975 addenda for determining the requirements of pressure retaining welds in ASME Code Class 1 and 2 piping as allowed by 10CFR50.55a(b)(2)(ii) and (iv).

The Section XI requirements of IWE (Class MC examination) do not apply to the second 10-year interval at Kewaunee by virtue of the exclusion of IWE from 10CFR50.55a.

In addition to Section XI, other regulatory and Kewaunee plant-specific documents were used in the preparation of this plan. A listing of these documents is included in the reference section of this booklet.

The second 10-year ISI plan for the Kewaunee plant addresses all the welds, bolts, surfaces, and supports that require examination, the method of examination, and the period (3-1/3 years time frame) during the ten years (1984 - 1994) when the examinations are scheduled.

This program follows Inspection Program B of Section XI, IWA-2420 (ten year intervals).

#### Plan Organization

The plan has been divided into three areas:

1. Weld, bolting, and surface examinations.
2. Component support examination.
3. Pressure test examination.

Item 1 above is divided by ASME Code class (1, 2, or 3) and by system within each Code class. Major Class 1 components such as the reactor pressure vessel, steam generators, and reactor coolant pumps are identified in the same manner as systems. Items 2 and 3 above are divided by class but not by system.

Plan sheets are organized by the Code category and item number established in the Section XI examination tables.

Discussion needed to clarify a major section of the plan is found in the front of that particular section. For example, the use of abbreviated drawing identification numbers in the Pressure Test section has been clarified by an introduction to that section. Discussion pertaining to a specific component is found in the comments section of each plan sheet.



Inspection Plan Format Description (Except Component Supports)

The following list provides the explanation of the plan/schedule sheet (see attached sample).

1. System identification as provided by P&IDs. In addition, the class and component title (piping, steam generator, etc.) will be specified here.
2. The examination category letter designation specified by Section XI (B-A, B-B, etc.)
3. The written designation associated with the examination category.
4. The item number associated with a particular examination category.
5. The weld/surface/components being examined.
6. The component or isometric drawing depicting the weld/surface/component being examined.
7. The alpha-numeric identifier of the weld/surface/component being examined.
8. The method by which the weld/surface/component is to be examined. If the method is to be volumetric (Vol.) or surface (Sur.), it will be denoted by an 'X' in the respective column. If the examination method is visual (Vis.), it will be identified by the particular visual method, either VT-1, VT-2, VT-3, VT-4, or a combination thereof. There are certain pipe welds which are partially inaccessible to the volumetric examination required by the Code. Where this occurs, a surface exam will supplement the limited volumetric examination. This will be indicated with a '+' in the volumetric and surface examination columns for these particular welds.

9. Examinations are scheduled by means of a slash (/) in the appropriate period (3-1/3 years or 1/3 of interval) column for which the examination is scheduled to be performed. This examination must be performed during that 3-1/3 year period. The only exception is if they are exchanged one for one, however, this exchange should be clearly added to the plan schedule. The end of interval (EOI) column indicates that the examination is not required by Section XI until the last inspection outage in the 10-year interval. However, the examination may occur during any one of the periods prior to EOI as preferred by the plant.

As examinations are completed, another slash is placed over the existing slash, thereby creating an 'X' meaning the examination is completed. Items not provided with a slash indicate that this item is not scheduled for examination during the second 10-year interval.

10. This column denotes the relief request or any other specific exemption where the Code required examination is not met. Refer to the exemption and relief request sections of this plan for further discussion.
11. The comments section is used when required to provide further clarification pertaining to the selection, scheduling, coverage required, and examination method of the weld/surface/component specified in the plan. Coverage required is 100% unless otherwise noted.
12. This column allows for the placement of the number 1, thereby identifying that this item was examined during the first interval.

#### NOTE

An item number identified as 'Not Applicable' on the plan sheet signifies that the item number/examination category cannot be applied to the particular component because of its design. For example:

- A Class 2 pressure vessel that has no integrally welded attachments would have 'Not Applicable' for item C3.10 - Integrally Welded Attachments of examination category C-C - Integral Attachments for Vessels Piping, Pumps, and Valves.

- A Class 2 pump with 1-1/2" pressure retaining bolting would have 'Not Applicable' for item C4.30 - Bolts & Studs of examination category C-D - Pressure Retaining Bolting Greater than 2" Diameter. This means that the examination category (pressure retaining bolting greater than 2") does not apply; it does not mean that the pump has no pressure retaining bolts.

| System: _____ (1)   |                       |         |      |                        |                     |      |      |                    |   |     |     |                             |          |
|---------------------|-----------------------|---------|------|------------------------|---------------------|------|------|--------------------|---|-----|-----|-----------------------------|----------|
| Category: _____ (2) |                       |         |      | Description: _____ (3) |                     |      |      |                    |   |     |     |                             |          |
| Item No.            | Component Description | Drawing | IE   | Identity               | Examination Methods |      |      | Examination Period |   |     |     | Exemption or Relief Request | Comments |
|                     |                       |         |      |                        | Vol.                | Sur. | Vis. | 1                  | 2 | 3   | EOI |                             |          |
| (4)                 | (5)                   | (6)     | (12) | (7)                    |                     | (8)  |      |                    |   | (9) |     | (10)                        | (11)     |

| Item No. | Component Description | Drawing | IE   | Identity | Examination Methods |      |      | Examination Period |   |     |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|------|----------|---------------------|------|------|--------------------|---|-----|-----|-----------------------------|----------|
|          |                       |         |      |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3   | EOI |                             |          |
| (4)      | (5)                   | (6)     | (12) | (7)      |                     | (8)  |      |                    |   | (9) |     | (10)                        | (11)     |

### Component Support Inspection Plan Format Description

The component support plan format was designed slightly different from that of the other examinations because of the unique information pertinent to component supports.

The following list identifies the corresponding columns found on the attached sample.

1. The examination category letter designation which, in all cases, includes all three categories (F-A, F-B, F-C) since the requirements among each category are the same.
2. The examination category written designation.
3. The component being supported, i.e. pipe, pump, heat exchanger, tank, etc.
4. The type of support, such as rigid, mechanical snubber, hydraulic snubber, spring, restraints, sway strut, etc.
5. The isometric drawing on which the component support is indicated.
6. The support identification number.
7. The method(s) which the support is to be examined. An 'X' will be denoted in either the VT-3 column or both the VT-3 and VT-4 columns, thus specifying the particular method(s) of examination.
8. Examinations are scheduled by means of a slash (/) in the appropriate period (3-1/3 years or 1/3 of interval) column for which the examination is scheduled to be performed. This examination must be performed during that 3-1/3 year period. The only exception is if they are exchanged one for one, however, this exchange should be clearly added to the plan schedule. The end-of-interval (EOI) column indicates the examination is not required by Section XI until the last inspection outage in the 10-year interval. However, the examination may occur during any one of the periods prior to the end of the interval as preferred by the plant.

As examinations are completed, another slash is placed over the existing slash, thereby creating an 'X' meaning that the examination has been completed. Items not provided with a slash indicate that the item is not scheduled for examination during the second 10-year interval. In the case of Snubbers and Rupture Restraints there is no slash since these items are covered by a separate program with the Technical Specifications or are not required to be examined by Section XI, respectively.

9. This column denotes the relief request or any other specific exemption where the Code-required examination is not met. Refer to the exemption and relief request sections of this plan for further discussion.
10. The comments section is used when required to provide further clarification. This may be used, for example, to clarify the selection, scheduling, and examination method of the component supports specified in the plan.

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KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C (1)

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS (2)

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| SUPPORTED<br>COMPONENT | SUPPORT TYPE | DRAWING | IDENTITY | EXAMINATION |   |        |   |   |   | COMMENTS |
|------------------------|--------------|---------|----------|-------------|---|--------|---|---|---|----------|
|                        |              |         |          | METHOD      |   | PERIOD |   |   |   |          |
|                        |              |         |          | V           | V | 1      | 2 | 3 | E |          |
|                        |              |         |          | T           | T | S      | N | R | O |          |
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----- SAMPLE -----

### Selection and Scheduling Criteria

The following outlines the basis used in selection of items to be examined and the scheduling of those items by period during Kewaunee's second 10-year interval.

#### 1. Selection Criteria

The methodology used for selecting a weld/surface/component to be examined was based on one of the following three factors:

- a. Section XI specifies 100% of welds/surfaces/components requires examination.
- b. Section XI clearly specifies which weld/surface/component is to be examined (i.e. all structural discontinuity welds).
- c. Section XI specifies less than 100% of items identified in item b above be examined. This selection is further based on location, multiple stream requirements, and a representative cross sampling of systems.

In the case of Class 2 pipe welds, the 1974S1975 Edition of Section XI specifies that different welds be examined each interval. In addition to the different welds selected for the second 10-year program, welds which exhibited indications in the first interval examinations will be re-examined.

#### 2. Scheduling Criteria

Once the appropriate welds/surfaces/components were selected for examination, they were then scheduled for a particular period within the interval in accordance with one of the following code requirements:

- a. Deferral of inspection to the end of interval (EOI or third period).  
Where the Code tables allow examinations to be deferred until the EOI, the components selected for examination have been scheduled for EOI.



- b. Non-permissible deferral. For these items, examination was distributed in accordance with the minimum/maximum allowable percentage per period as outlined by IWB-2412-1 and IWC-2412-1. Further consideration was given to the last examination of that item (if applicable) and the geometric configuration. For example, if an item was last examined in the second period of the first interval, it has been scheduled for no later than the second period of the second interval. If first interval inspection was not performed or was performed at EOI, a geometric sampling method or location method, as applicable, was used.

REFERENCES

1. ASME Section XI 1980 through Winter 1981 Addenda.
2. ASME Section XI 1974 through Summer 1975 Addenda.
3. Code of Federal Regulation Title 10, Part 50, 1983 Edition.
4. Regulatory Guide 1.147 - ISI Code Case Acceptability.
5. Regulatory Guide 1.65 - Materials and Inspection for Reactor Vessel Closure Studs.
6. Kewaunee first 10-year ISI plan.
7. Kewaunee Technical Specification, Proposed Amendment 25C
8. Kewaunee first 10-year ISI outage reports.
9. Kewaunee Nuclear Power Plant System Descriptions.
10. Kewaunee Integral Attachment Component Support Drawings.
11. Kewaunee ISI Weld Map Isometrics.
12. Kewaunee ISI Component Drawings.
13. Kewaunee ISI P&IDs.
14. Kewaunee Nuclear Plant Hanger Data Sort.
15. Kewaunee Piping Isometrics.
16. Kewaunee Safety Related Equipment Drawings.

### RELIEF REQUESTS

The Kewaunee Nuclear Power Plant was not specifically designed to meet all the requirements of the 1980W1981 Section XI even though every effort has been made through modifications to make provisions for maximum access within the limits of current plant design.

In accordance with 10CFR50.55a, paragraph (g)(5)(iii), we have identified herein the areas where Section XI Code requirements are impractical for the Kewaunee Nuclear Power Plant. As a result, we are requesting relief from certain Code requirements and hereby establish alternative examination methods to achieve a sound level of integrity. We have concluded that such relief will not endanger life or property or the common defense and security and is otherwise in the public interest while giving due consideration to the burden upon Wisconsin Public Service Corporation that would result if the Code requirements were imposed.

CLASS 1

RELIEF REQUESTS

RELIEF REQUEST NO. RR-1-1

1. Components Affected

Three Class 1 circumferential pipe welds:

|         | <u>Isometric</u> | <u>Description</u>                                          |
|---------|------------------|-------------------------------------------------------------|
| RC-W61  | M-1151           | 6" SI high head adjacent to valve<br>SI-13B off RC cold leg |
| SI-W12  | M-1144           | 6" SI high head adjacent to valve<br>SI-13A off RC cold leg |
| RTD-W30 | M-1147           | 3" RTD return adjacent to valve<br>RC-103A off RC intr. leg |

2. Section XI Requirements

Volumetric examination per 1974S1975, IWB-2600, Cat. B-J, item B4.5.

3. Basis for Requesting Relief

Due to access restrictions on either side of these welds, volumetric examination of 100% of the weld and heat affected zones cannot be performed.

4. Alternative Method of Examination

Supplement the limited volumetric examination with surface examination. Surface examination will serve to detect any indications in the near surface of the weld and heat affected zone.

RELIEF REQUEST NO. RR-1-2

1. Components Affected

Reactor coolant pumps 1A and 1B.

|        | <u>Isometric</u> | <u>Description</u>     |
|--------|------------------|------------------------|
| RCP-1A | M-1202           | Reactor Coolant Pump A |
| RCP-1B | M-1202           | Reactor Coolant Pump B |
| RCP-W1 | M-1203           | Casing Weld, Pump A    |

2. Section XI Requirements

- a. Volumetric examination of reactor coolant pump casing weld RCP-W1 (Pump 1A) per 1980W1981, IWB-2500-1, Cat. B-L-1, item B12.10.  
Pump 1B does not have a casing weld.
- b. VT-3 examination of internal casing surfaces of RCP 1A and RCP 1B per Cat. B-L-2, item B12.20.

3. Basis for Requesting Relief

The physical and financial hardships that must be endured to perform the examinations are not technically justified for the following reasons:

- a. Visual and radiographic examination of the pump internal surface will require complete disassembly of the pump. The pump manufacturer (Westinghouse) does not require or recommend pump disassembly to perform normal maintenance or inspections; therefore, limited experience in this area may result in significant damage or degradation to the pump.
- b. There have been no reported failures of the casing weld with these model pumps. WPSC has had no operational problems with the pump that could indicate potential degradation of the casing welds.
- c. The reactor coolant pump casing consists of two type 316 stainless steel cast rings. This type of material is widely used in the nuclear industry and has performed extremely well.
- d. The total radiation exposure at the Kewaunee Plant for ISI work in 1980 was 17.9 man-rem and in 1981 was 15.9 man-rem. According to exposure levels experienced at other plants (Reference 2), the total exposure for this reactor coolant pump exam could range from 35 - 100 man-rem. The RCP exam could potentially increase normal ISI exposure by more than five times.

- e. The pump disassembly inspection and reassembly is estimated to cost approximately \$500,000. WPSC feels the increased radiation exposure and the excessive cost of performing this examination far exceed any beneficial safety improvements that might be achieved.

This relief is justified based on the excessive cost for the examination, radiation exposure to personnel performing the examination, and the potential for damage to the pump during disassembly and reassembly.

#### 4. Alternative Method of Examination

- a. A different section of the accessible weld will be examined during each 10-year interval with a section being defined as the accessible area between two pump supports. Since there are three pump supports, this inspection will provide for surface examination of 100% of the accessible weld over three 10-year intervals (30 years). Surface examination will serve to detect any near surface indications in the weld.
- b. If maintenance or operational problems are encountered which necessitate disassembly of the casing internals of either pump, a VT-3 examination of the interior casing surface will be performed.
- c. A VT-2 examination of the casing exterior is performed in conjunction with pressure tests each 3-1/3 years.

If indications in weld RCP W1 are observed during any of the examinations mentioned, WPSC will re-evaluate the need and justification for performance of a volumetric examination.

#### RELIEF REQUEST NO. RR-1-3

##### 1. Components Affected

Eight longitudinal welds in the reactor coolant system crossover leg 90° elbows:

|         | <u>Isometric</u> | <u>Description</u>                 |
|---------|------------------|------------------------------------|
| RC-W10L | M-1144           | RC crossover leg adjacent to steam |
| RC-W11L |                  | gen 1A                             |
| RC-W16L | M-1144           | RC crossover leg adjacent to RC    |
| RC-W17L |                  | Pump 1A                            |
| RC-W40L | M-1151           | RC crossover leg adjacent to steam |
| RC-W41L |                  | gen 1B                             |
| RC-W46L | M-1151           | RC crossover leg adjacent to RC    |
| RC-W47L |                  | Pump 1B                            |

2. Section XI Requirements

Volumetric examination of 1 foot length of weld adjacent to one of the circumferential welds it intersects per 1974S1975, IWB-2600, Cat. B-J, item B4.5.

3. Basis for Requesting Relief

The 90° elbows are fabricated from two halves of austenitic steel castings which are welded together by the electroslog process. The structure and nature of this electroslog weld are such that the material is opaque to ultrasonic transmissions. The other volumetric technique, radiography, will not produce Code acceptable clarity due to:

- a. 300 mr/hr contact radiation level.
- b. Double wall 'shots' through 38" diameter elbows that are 3-1/2" wall thickness with a 2" thick splitter plate.

Therefore, volumetric examination is impractical for these welds.

4. Alternative Method of Examination

Perform surface examination in lieu of volumetric examination. Surface examination will detect any indications in the near surface of the weld and heat affected zone.

RELIEF REQUEST NO. RR-1-4

1. Components Affected

Two Class 1 circumferential pipe welds:

|        | <u>Isometric</u> | <u>Description</u>                                              |
|--------|------------------|-----------------------------------------------------------------|
| SI-W57 | M-1152           | 10" RHR return to RC Loop B cold leg downstream of valve RHR-11 |
| SI-W58 | M-1152           |                                                                 |

2. Section XI Requirements

Volumetric examination per 1974S1975, IWB-2600, Cat. B-J, item B4.5.

3. Basis for Requesting Relief

Access restrictions on either side of these welds due to non-moveable whip restraints and supports inhibit the ability to perform volumetric examination on the weld and heat affected zones.

4. Alternative Method of Examination

Perform surface examination in lieu of volumetric examination. Surface examination will serve to detect any indications in the near surface of the weld and heat affected zone.



CLASS 2

RELIEF REQUESTS

RELIEF REQUEST NO. RR-2-1

1. Components Affected

Twelve regenerative heat exchanger welds; six head to shell welds and six tubesheet to shell.

|         | <u>Isometric</u> | <u>Description</u>      |
|---------|------------------|-------------------------|
| ARG-W1  | M-1208           | Head to shell weld      |
| ARG-W4  | M-1208           | Head to shell weld      |
| ARG-W5  | M-1208           | Head to shell weld      |
| ARG-W8  | M-1208           | Head to shell weld      |
| ARG-W9  | M-1208           | Head to shell weld      |
| ARG-W12 | M-1208           | Head to shell weld      |
| ARG-W2  | M-1208           | Tubesheet to shell weld |
| ARG-W3  | M-1208           | Tubesheet to shell weld |
| ARG-W6  | M-1208           | Tubesheet to shell weld |
| ARG-W7  | M-1208           | Tubesheet to shell weld |
| ARG-W10 | M-1208           | Tubesheet to shell weld |
| ARG-W11 | M-1208           | Tubesheet to shell weld |

2. Section XI Requirements

Volumetric examination of all welds, each interval, per 1980W1981, IWB-2500, Cat. C-A, items C1.20 and C1.30.

3. Basis for Requesting Relief

Radiation levels adjacent to this heat exchanger average between 6 and 7 R/hr. The total time required for erection of scaffolding, removal of insulation, cleaning, and restoration of insulation could take three to four hours, and this does not include the examination time for examining 4 of the 12 welds or approximately 120 inches of weld during a particular outage. Not including the examination time, personnel could be subjected to a total accumulated dose of up to 56 rem. It is felt that the potential personnel exposure to complete these examinations is impractical in light of the high radiation levels, especially when the associated piping connecting to the heat exchanger are exempt from volumetric and surface examination because of size.

4. Alternative Method of Examination

The vessel will be examined for evidence of leakage (VT-2) during system pressure tests which are conducted each period (three times per interval); once during conduct of a hydrostatic test at an elevated pressure and twice during conduct of an inservice test at nominal operating pressure. This provides the same degree of integrity as provided and allowed by Section XI for the associated piping system.

RELIEF REQUEST NO. RR-2-2

1. Components Affected

RHR heat exchanger nozzle to vessel welds:

|          | <u>Isometric</u> | <u>Description</u> |
|----------|------------------|--------------------|
| AHRS1-W3 | M-1207           | 1A outlet nozzle   |
| AHRS1-W4 | M-1207           | 1A inlet nozzle    |
| AHRS1-W7 | M-1207           | 1B outlet nozzle   |
| AHRS1-W8 | M-1207           | 1B inlet nozzle    |

2. Section XI Requirements

Surface examination of all welds, each interval per 1980W1981, IWB-2500, Cat. C-B, item C2.10.

3. Basis for Requesting Relief

These welds are covered by 12 inch diameter, one inch thick reinforcement pads; therefore, the welds are not accessible for performance of surface examination. The inside of the heat exchanger is also inaccessible, eliminating the ability to perform an alternative volumetric examination. Excessively high radiation levels also make this examination impractical.

4. Alternative Method of Examination

The weld nozzle area will be VT-2 examined for evidence of leakage in conjunction with system pressure tests which are conducted each period (three times per interval); once during conduct of a hydrostatic test at an elevated pressure and twice during an inservice or functional test at nominal operating pressure.

RELIEF REQUEST NO. RR - 2 - 3

1. Components Affected

Two circumferential pipe welds:

|          | <u>Isometric</u> | <u>Description</u>                              |
|----------|------------------|-------------------------------------------------|
| RHR-W244 | M-1172           | 6" RHR bypass upstream of valve<br>RHR-101      |
| SI-W167  | M-1176           | 6" SI low head injection adjacent<br>to SI-302B |

2. Section XI Requirements

Volumetric examination per 1974S1975, IWC-2600, Cat. C-F, item C2.1.

3. Basis for Requesting Relief

Due to access restrictions on either side of the weld, volumetric examination on 100% of the volume of the weld and heat affected zone cannot be performed.

4. Alternative Method of Examination

Perform surface examination in lieu of volumetric examination. Surface examination will detect any indications in the near surface of the weld and heat affected zone. Furthermore, the 1980W1981 Addenda of Section XI which is used for the development of this plan with the exception of pipe welds specifies that circumferential pipe welds <1/2 inch pipe wall thickness only require surface examination. The subject welds are located in portions of systems where piping nominal wall thickness is less than 1/2 inch.

CLASS 3  
RELIEF REQUESTS

NONE

## EXEMPTIONS

Portions of Class 1, 2, and 3 components which are exempt from certain examinations are detailed by Code class as follows. Not all the exemptions found in IWB-1220 and IWC-1220 of Section XI apply to the Kewaunee Nuclear Power Plant. The exemption P&IDs (later) are marked to indicate those portions of systems which are exempt.

### CLASS 1

#### Exemption - El-1

Code Reference: IWB-1220(b), 1980W1981

#### Description

Piping of 1" nominal pipe size and smaller, and components and their connections of 1" nominal pipe size and smaller with the exception of steam generator tubing.

- |   |                              |                                                                                                                                                                                                                                    |
|---|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| - | Method of Exam Exempt:       | Volumetric and Surface                                                                                                                                                                                                             |
| - | Portion of Systems Affected: | Reactor coolant system (X-K100-10)<br>Safety injection system (X-K100-28),<br>3/4" test lines<br><br>Chemical and volume control<br>(X-K100-35), 3/4" reactor coolant<br>pump No. 1 seal bypass lines and<br>excess letdown lines. |

#### Exemption - El-2

Code Reference: Footnote 1, Examination Category B-H, 1980W1981

#### Description

The integral attachment examinations of this category are limited to those welded attachments whose base material design thickness is 5/8" or greater. Therefore, integral attachments with a design thickness less than 5/8" do not require any examination.

- Method of Exam Exempt: Volumetric or surface
- Portions of Systems Affected: Integral attachments to pressure retaining components of various Class 1 systems

### CLASS 2

All exemptions are from the 1980W1981 Section XI with the exception of pressure retaining pipe welds which are from the 1974S1975 Section XI.

### ALL COMPONENTS

#### Exemption - E2-1

Code Reference: IWC-1220(c) 1980W1981; IWC-1220(d) 1974S1975

#### Description

Component connections (including nozzles in vessels and pumps), piping, and associated valves, and vessels and their attachments that are 4" nominal pipe size and smaller.

- Method of Exam Exempt: Volumetric and Surface
- Portions of Systems Affected:
  - Aux coolant system (X-K100-18), various portions
  - Safety injection system (X-K100-28/29), various portions
  - Chemical and volume control (X-K100-35/36), various portions
  - Sampling system (X-K100-44), 3/4" lines from containment
  - Main, auxiliary steam and steam dump (Operation - M205), various portions
  - Feedwater system (Operation - M205), various portions
  - Internal containment spray (Operation - M-217) pump recirculation and test lines

PRESSURE RETAINING WELDS IN PIPING ONLY (Examination Category C-F)

Exemption - E2-2

Code Reference: IWC-1220(c) 1974S1975  
IWC-1220(a) 1980W1981\*

Description

Emergency core cooling system piping only, provided the control of the chemistry is verified by periodic sampling and test.

- Method of Exam Exempt: Volumetric and Surface
- Portion of Systems Affected: Safety injection system (X-K100-28/29)  
12" accumulator injection lines, SI  
pump suction branches, refueling water  
transfer line and connected RHR pump  
suction header

\* Although not present in later versions of Section XI, the use of this exemption is clearly allowed by the 1974S1975 edition and addenda. However, since controlling chemistry may not totally eliminate the stress corrosion problem, the pipe welds in these SI system portions were also considered exempt because they would not be subject to examination by the 1980W1981 edition and addenda. The applicable 1980W1981 exemption is IWB-1220(a); see E2-6 for description.

Exemption - E2-3

Code Reference: IWC-1220(b) 1974S1975

Description

Other than emergency core cooling systems, components in systems or portions of systems which do not function during normal reactor operation.

- Method of Exam Exempt: Volumetric and Surface
- Systems Affected: Containment spray system (Operations -  
M217)



Exemption - E2-4

Code Reference: IWC-2520 (C-F, C-G) 1974S1975

Description

Circumferential butt welds in piping which are not within three pipe diameters of rigid anchors, penetrations, rigidly anchored components, or not at structural discontinuities are excluded from the examination requirements in Table IWC-2520 of the 1974S1975 Code.

- Method of Exam Exempt: Volumetric
- Portions of Systems Affected: Various Class 2 circumferential butt welds

COMPONENTS OTHER THAN PIPINGExemption - E2-5

Code Reference: IWC-1220(b) 1980W1981

Description

Components of systems or portions of systems other than residual heat removal and emergency core cooling that are not required to operate above a pressure of 275 psig or above a temperature of 200 F.

- Method of Exam Exempt: Volumetric and Surface
- Portions of Systems Affected: Chemical and volume control (X-K100-36)  
Volume control tank, reactor coolant filter, seal water return filter, seal water heat exchanger

Exemption - E2-6

Code Reference: IWC-1220(a) 1980W1981

Description

Components of systems or portions of systems that, during normal plant operating conditions, are not required to operate or perform a system function but remain flooded under static conditions at a pressure of at least 80% of the pressure that the component or system will be subjected to when required to operate.

- Method of Exam Exempt: Volumetric and Surface
- Portion of Systems Affected: Safety injection system (X-K100-28/29)  
Accumulators, refueling water storage tank

Exemption - E2-7

Code Reference: Footnote 1, Examination Category C-C, 1980W1981

Description

The integral attachment examination (Category C-C) is limited to those welded attachments whose base material design thickness is 3/4" or greater.

- Method of Exam Exempt: Surface
- Portion of Systems Affected: Integral attachments to pressure retaining components of various Class 2 systems

CLASS 3Exemption - E3-1

Code Reference: IWD-1220.1, 1980W1981

Description

Integral attachments of supports and restraints for components 4" nominal pipe size and smaller except for those found on the auxiliary feedwater system.

- Method of Exam Exempt: VT-3
- Portion of Systems Affected:
  - Chemical and volume control (X-K100-36/38)
  - Boric acid blender and connected lines, lines connecting boric acid tanks, boric acid transfer pumps and boric acid filter
  - Auxiliary coolant system (X-K100-19/20) shell side inlet and outlet of seal water heat exchanger, shell side inlet and outlet of high radiation sample heat exchangers, component cooling recirc line.
  - Component cooling water lines to and from waste evaporator, RHR pumps, SI pumps, ICS pumps, RHR pumps, excess letdown heat exchangers
  - Service water system (Operation - M202)
  - SW pump lubewater lines, lines connected to SI pumps, 3" lines to AFC pumps
  - Main, auxiliary steam and steam pump (Operations - M203), 3" lines to turbine driven AFW pump
  - Spent fuel cooling and cleanup system (Operations - M218) lines interconnecting spent fuel pool pumps, filters, and heat exchangers

Exemption - E3-2

Code Reference: IWD-1220.2, 1980W1981

Description

Integral attachments of supports and restraints to components exceeding 4" nominal pipe size provided the components are located in systems whose function is not required in support of reactor residual heat removal, containment heat removal, and emergency core cooling, and that the components operate at a pressure of 275 psig or less and a temperature of 200 F or less.

- Method of Exam Exempt: VT-3
- Portion of Systems Affected: Chemical and volume control (X-K100-38)  
Boric acid tanks, boric acid transfer pumps, boric acid filter, seal water heat exchanger  
Spent fuel pool cooling and cleanup (Operations - M218)  
Spent fuel heat exchanger, spent fuel pool transfer pumps and various 6" lines

Exemption - E3-3

Code Reference: Footnote 3, Examination Category D-A, D-B, D-C, 1980W1981

Description

This footnote states that for the case of multiple components within a system of similar design, function, and service, the integral attachment of only one of the multiple components shall be examined.

- Method of Exam Exempt: VT-3
- Portion of Systems Affected: Various portions of Class 3 systems

COMPONENT SUPPORT EXAMINATION (Class 1, 2, and 3)

Exemption - EF-1

Code Reference: IWF-2510(b), 1980W1981

Description

For multiple components within a system of similar design function and service, the supports of only one of the multiple components are required to be examined.

- Method of Exam Exempt: VT-3 and VT-4
- Portion of Systems Affected: Various portions of Class 1, 2, and 3 systems

SPECIFIC NOTE

CATEGORY B-A  
Items 1.30 & 1.40

Pressure Retaining  
Shell-to-Flange and Head-to-Flange Welds  
in Reactor Vessel

For volumetric examination, examination must be performed from the flange face as well as from the vessel wall. The code requires at least 50% of weld exam first period with the remainder the third period. However, in the case of volumetric examination, the vessel wall portion of the exam may be deferred until the end of the interval provided 50% of the weld is examined from the face during the first period.

SPECIFIC NOTE

CATEGORY B-D

Full Penetration Welds  
of Nozzles in Vessels

Nozzle to vessel welds and nozzle inside radius section welds must be volumetric examined from the nozzle bore as well as from the shell side. Section XI requires at least 25% but no more than 50% of the nozzles be examined the first period with the remainder the third period. However, if during the first period those selected nozzles are examined from the nozzle bore by straight beam ultrasonic method, the shell side exam for those nozzles may be deferred until the end of the interval.

SPECIFIC NOTE

CATEGORY B-J

Pressure Retaining Welds  
in Class 1 Piping

1. 10CFR50 allows the option of using the 1974S1975 Section XI for Class 1 pipe weld selection and examination method as stated in the following excerpt from 10CFR50.55a(b)(2)(ii):

"Pressure Retaining Welds in ASME Code Class 1 Piping  
(applies to Table IWB-2500 and IWB-2500-1 and Category B-J)  
If the facility's application for a construction permit was docketed prior to 1 July 1978, the extent of examination for Code Class 1 pipe welds may be determined by the requirements of Table IWB-2500 and Table IWB-2600 Category B-J of Section XI of the ASME Code in the 1974 Edition and Addenda through Summer 1975, or other requirements the commission may adopt."

This option has been used in the development of this second 10-year ISI plan. As a result, items B9.10 through B9.40 of the 1980W1981 have been replaced with item numbers B4.5 through B4.8 of the 1974S1975 Section XI.

2. Criteria for successive interval weld selection differs between the two Code editions and addenda mentioned above. The 1974S1975 addenda specifies to examine different welds each interval as stated in IWB-2420(c). The 1980W1981 addenda states that the initially selected welds shall be re-examined during each inspection interval. However, this is because selection is based partly on stress information, whereas the earlier Code is purely random. For this reason, welds scheduled for examination in the second 10-year plan are not the same as those selected for the first 10-year interval. Based on the 1970 Code, a preservice exam was required on 100% of the Class 1 welds; therefore, the second 10-year selected welds should have previous examination data.



Category B-J (Cont'd)

The 25% selection criteria is exclusive for each item number (i.e. B4.5, B4.6, B4.7, and B4.8). Considerations were given to first 10-year selection and probable system high stress areas.

Consideration was also given to designate the same period for examination on adjacent or nearby welds when practical to increase the examination efficiency during an ISI outage.

3. Each of the data sheets has a space to insert comments. There are two typical comments found in the data sheets for Class 1 pipe welds which are further explained here.

- Inaccessible/Supports:

The pipe welds with this comment are inaccessible to the examination required by the Code due to the presence of pipe supports or whip restraints. None of these welds were selected for second interval examination. This comment is included to aid in the selection of future welds such that these welds will not be selected.

- Inaccessible/Geometry:

There are cases where a weld and heat affected zone is only partially accessible to the volumetric examination required by the Code. Where this occurs, a surface examination will be used to supplement the limited volumetric examination. This will also be indicated by a '+' in the volumetric and surface examination columns instead of the usual 'X' in the volumetric examination column.

SPECIFIC NOTE

CLASS 1

Heat Exchangers

The only Class 1 heat exchangers at Kewaunee are the two excess letdown heat exchangers.

Although only piping is included in the other Class 1 system sections of this plan, these heat exchangers are included in the Chemical and Volume Control System section since they are not specifically addressed in Section XI and to avoid confusion with the reactor coolant system equipment which are.

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Pressure Vessel - Reactor Coolant System

**Category:** B-A      **Description:** Pressure Retaining Reactor Vessel Welds

| Item No.        | Component Description          | Drawing | IE | Identity                | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                       |
|-----------------|--------------------------------|---------|----|-------------------------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------------------------------------------------------------|
|                 |                                |         |    |                         | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                |
| B1.10/<br>B1.11 | Circumf. Shell Welds           | M-1193  |    | RV-W2<br>RV-W3<br>RV-W4 | X<br>X<br>X         |            |      |                    |   |   | /   |                             | One beltline region weld required at structural discontinuity. |
| B1.10/<br>B1.12 | Longitudinal Shell Welds       | M-1193  |    | - - - - -               | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                                                                |
| B1.20/<br>B1.21 | Circumf. Head Welds            | M-1198  |    | RV-W5                   | X                   |            |      |                    |   |   | /   |                             | Also see B1.40 - head-to-flange weld                           |
| B1.20/<br>B1.22 | Meridional Head Welds          | M-1198  |    | - - - - -               | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                                                                |
| B1.30           | Shell-to-Flange Weld           | M-1193  |    | RV-W1                   | X                   |            |      | /                  |   | / |     |                             | See Spec. Note Cat. B-A                                        |
| B1.40           | Head-to-Flange Weld            | M-1198  |    | RV-12                   | X                   | X          |      | /                  |   | / |     |                             | See Spec. Note Cat. B-a                                        |
| B1.50/<br>B1.51 | Repair Welds (Beltline Region) |         |    | - - - - -               | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                                                                |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Pressure Vessel - Reactor Coolant System

**Category:** B-D **Description:** Full Penetration Welds of Nozzles in Vessels (Program B)

| Item No. | Component Description        | Drawing | IE | Identity                      | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                       |
|----------|------------------------------|---------|----|-------------------------------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|--------------------------------|
|          |                              |         |    |                               | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                |
| B3.90    | Nozzle-to-Vessel Welds       | M-1194  |    | RV-W6                         | X                   |      |      | /                  |   |   |     |                             | Assumed 50% for best sampling. |
|          |                              |         |    | RV-W7                         | X                   |      |      |                    |   | / |     |                             |                                |
|          |                              |         |    | RV-W8                         | X                   |      |      | /                  |   |   |     |                             |                                |
|          |                              |         |    | RV-W9                         | X                   |      |      | /                  |   |   |     |                             |                                |
|          |                              |         |    | RV-W10                        | X                   |      |      |                    |   | / |     |                             |                                |
|          |                              |         |    | RV-W11                        | X                   |      |      |                    |   | / |     |                             |                                |
| B3.100   | Nozzle Inside Radius Section | M-1194  |    | Inside radii associated with: |                     |      |      |                    |   |   |     |                             |                                |
|          |                              |         |    | RV-W6                         | X                   |      |      | /                  |   |   |     |                             |                                |
|          |                              |         |    | RV-W7                         | X                   |      |      |                    |   | / |     |                             |                                |
|          |                              |         |    | RV-W8                         | X                   |      |      | /                  |   |   |     |                             |                                |
|          |                              |         |    | RV-W9                         | X                   |      |      | /                  |   |   |     |                             |                                |
|          |                              |         |    | RV-W10                        | X                   |      |      |                    |   | / |     |                             |                                |
|          |                              |         |    | RV-W11                        | X                   |      |      |                    |   | / |     |                             |                                |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Pressure Vessel - Reactor Coolant System

**Category:** B-E **Description:** Partial Penetration Welds in Vessels

| Item No.        | Component Description     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                  |
|-----------------|---------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------|
|                 |                           |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                           |
| B4.10/<br>B4.11 | Vessel Nozzles            |         |    |          |                     |      | VT-2 | /                  | / | / |     |                             | Randomly examine 9% of all nozzles each period during leak test. Perform concurrent with B-P, item B15.10 |
| B4.10/<br>B4.12 | Control Rod Drive Nozzles |         |    |          |                     |      | VT-2 | /                  | / | / |     |                             |                                                                                                           |
| B4.10/<br>B4.13 | Instrumentation Nozzles   |         |    |          |                     |      | VT-2 | /                  | / | / |     |                             |                                                                                                           |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Pressure Vessel - Reactor Coolant System

**Category:** B-F **Description:** Dissimilar Metal Welds

| Item No. | Component Description                   | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                     |
|----------|-----------------------------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|--------------------------------------------------------------|
|          |                                         |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |                                                              |
| B5.10    | Nozzle to Safe End Butt Welds $\geq$ 4" | M-1144  |    | RC-W1DM   | X                   | X          |      |                    |   | / |     |                             | B5.10 - synchronized with B-D<br><br>1st interval indication |
|          |                                         | A       |    | RC-W26DM  | X                   | X          |      | /                  |   |   |     |                             |                                                              |
|          |                                         | M-1146  |    | SI-W54DM  | X                   | X          |      | /                  |   |   |     |                             |                                                              |
|          |                                         | M-1151  |    | RC-W30DM  | X                   | X          |      |                    |   | / |     |                             |                                                              |
|          |                                         | B       |    | RC-W58DM  | X                   | X          |      | /                  |   |   |     |                             |                                                              |
|          |                                         | M-1154  |    | SI-W112DM | X                   | X          |      |                    |   | / |     |                             |                                                              |
| B5.20    | Nozzle to Safe End Butt Welds $<$ 4"    | - - - - | -  | - - - -   | Not                 | Applicable | -    | -                  | - | - | -   | E1-1                        |                                                              |
| B5.30    | Nozzle to Safe End Socket Weld          | - - - - | -  | - - - -   | Not                 | Applicable | -    | -                  | - | - | -   | E1-1                        |                                                              |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

**Category:** B-G-1      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing                 | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|-------------------------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |                         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B6.10    | Closure Head Nuts     | M-1195<br>and<br>M-1196 |    | RV-S1    |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S2    |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S3    |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S4    |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S5    |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S6    |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S7    |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S8    |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S9    |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S10   |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S11   |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S12   |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S13   |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S14   |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S15   |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S16   |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S55   |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S18   |                     | X    |      |                    |   |   | /   |                             |          |
|          |                       |                         |    | RV-S19   |                     | X    |      |                    |   |   | /   |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Reactor Vessel - Reactor Coolant System

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.          | Component Description | Drawing                 | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|-------------------|-----------------------|-------------------------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|                   |                       |                         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B6.10<br>(Cont'd) | Closure Head Nuts     | M-1195<br>and<br>M-1196 |    | RV-S20   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S21   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S22   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S23   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S24   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S25   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S26   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S27   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S28   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S29   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S30   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S31   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S32   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S33   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S34   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S35   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S36   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S37   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S38   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S39   |                     | X    |      |                    |   |   | /   |                             |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

**Category:** B-G-1      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.          | Component Description | Drawing                 | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|-------------------|-----------------------|-------------------------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|                   |                       |                         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B6.10<br>(Cont'd) | Closure Head Nuts     | M-1195<br>and<br>M-1196 |    | RV-S40   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S41   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S42   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S43   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S44   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S45   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S46   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S47   |                     | X    |      |                    |   |   | /   |                             |          |
|                   |                       |                         |    | RV-S48   |                     | X    |      |                    |   |   | /   |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Reactor Vessel - Reactor Coolant System

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.              | Component Description                                              | Drawing                 | IE | Identity | Examination Methods <sup>2</sup> |                   |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                                                                                                                 |
|-----------------------|--------------------------------------------------------------------|-------------------------|----|----------|----------------------------------|-------------------|------|--------------------|---|---|-----|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       |                                                                    |                         |    |          | Vol.                             | Sur. <sup>1</sup> | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                                                                                                                                                          |
| B6.20<br>and<br>B6.30 | Closure Head Studs (in place)<br>Closure Head Studs (when removed) | M-1195<br>and<br>M-1196 |    | RV-S1    | X                                | X                 |      |                    |   |   | /   |                             | 1 - Surface examination required only if studs are removed from vessel (B6.30) and the examination is performed while removed. This should be done concurrently with B6.40 and B6.50.<br><br>2 - The examination method performed shall be circled (X) in the examination method column. |
|                       |                                                                    |                         |    | RV-S2    | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S3    | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S4    | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S5    | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S6    | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S7    | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S8    | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S9    | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S10   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S11   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S12   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S13   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S14   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S15   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S16   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S55   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S18   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |
|                       |                                                                    |                         |    | RV-S19   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

**Category:** B-G-1      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.                 | Component Description                                              | Drawing           | IE | Identity | Examination Methods <sup>2</sup> |                   |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                                                                                                                   |
|--------------------------|--------------------------------------------------------------------|-------------------|----|----------|----------------------------------|-------------------|------|--------------------|---|---|-----|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |                                                                    |                   |    |          | Vol.                             | Sur. <sup>1</sup> | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                                                                                                                                                            |
| B6.20 and B6.30 (Cont'd) | Closure Head Studs (in place)<br>Closure Head Studs (when removed) | M-1195 and M-1196 |    | RV-S20   | X                                | X <sup>1</sup>    |      |                    |   |   |     | /                           | 1 - Surface examination required only if studs are removed from vessel (B6.30) and the examination is performed while removed. This should be done concurrently with B6.40 and B6.50.<br><br>2 - The examination method performed shall be circled ((X)) in the examination method column. |
|                          |                                                                    |                   |    | RV-S21   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S22   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S23   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S24   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S25   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S26   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S27   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S28   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S29   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S30   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S31   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S32   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S33   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S34   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S35   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S36   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S37   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S38   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S39   | X                                | X                 |      |                    |   |   |     | /                           |                                                                                                                                                                                                                                                                                            |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

**Category:** B-G-1      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.                 | Component Description                                              | Drawing           | IE | Identity | Examination Methods <sup>2</sup> |                   |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                                                                                                                   |
|--------------------------|--------------------------------------------------------------------|-------------------|----|----------|----------------------------------|-------------------|------|--------------------|---|---|-----|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |                                                                    |                   |    |          | Vol.                             | Sur. <sup>1</sup> | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                                                                                                                                                            |
| B6.20 and B6.30 (Cont'd) | Closure Head Studs (in place)<br>Closure Head Studs (when removed) | M-1195 and M-1196 |    | RV-S40   | X                                | X                 |      |                    |   |   | /   |                             | 1 - Surface examination required only if studs are removed from vessel (B6.30) and the examination is performed while removed. This should be done concurrently with B6.40 and B6.50.<br><br>2 - The examination method performed shall be circled ((X)) in the examination method column. |
|                          |                                                                    |                   |    | RV-S41   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S42   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S43   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S44   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S45   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S46   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S47   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                            |
|                          |                                                                    |                   |    | RV-S48   | X                                | X                 |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                            |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

**Category:** B-G-1 **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing                 | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                              |
|----------|-----------------------|-------------------------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                       |                         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                       |
| B6.40    | Threads in Flange     | M-1195<br>and<br>M-1196 |    | RV-S1    | X                   |      |      |                    |   |   | /   |                             | Examination required only if connections are disassembled and is performed while disassembled. This should be done concurrently with B6.30 and B6.50. |
|          |                       |                         |    | RV-S2    | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S3    | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S4    | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S5    | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S6    | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S7    | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S8    | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S9    | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S10   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S11   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S12   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S13   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S14   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S15   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S16   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S55   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S18   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S19   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

**Category:** B-G-1 **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.          | Component Description | Drawing                 | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                              |
|-------------------|-----------------------|-------------------------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |                       |                         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                       |
| B6.40<br>(Cont'd) | Threads in Flange     | M-1195<br>and<br>M-1196 |    | RV-S20   | X                   |      |      |                    |   |   | /   |                             | Examination required only if connections are disassembled and is performed while disassembled. This should be done concurrently with B6.30 and B6.50. |
|                   |                       |                         |    | RV-S21   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S22   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S23   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S24   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S25   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S26   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S27   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S28   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S29   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S30   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S31   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S32   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S33   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S34   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S35   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S36   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S37   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S38   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S39   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                       |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

**Category:** B-G-1      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.          | Component Description | Drawing                 | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                             |
|-------------------|-----------------------|-------------------------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |                       |                         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                      |
| B6.40<br>(Cont'd) | Threads in Flange     | M-1195<br>and<br>M-1196 |    | RV-S40   | X                   |      |      |                    |   |   | /   |                             | Examination required only if connection are disassembled and is performed while disassembled. This should be done concurrently with B6.30 and B6.50. |
|                   |                       |                         |    | RV-S41   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                      |
|                   |                       |                         |    | RV-S42   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                      |
|                   |                       |                         |    | RV-S43   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                      |
|                   |                       |                         |    | RV-S44   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                      |
|                   |                       |                         |    | RV-S45   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                      |
|                   |                       |                         |    | RV-S46   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                      |
|                   |                       |                         |    | RV-S47   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                      |
|                   |                       |                         |    | RV-S48   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                      |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Reactor Vessel - Reactor Coolant System

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing                 | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                              |
|----------|-----------------------|-------------------------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                       |                         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                       |
| B6.50    | Closure Washers       | M-1195<br>and<br>M-1196 |    | RV-S1    |                     |      | VT-1 |                    |   |   | /   |                             | Examination required only if connections are disassembled and is performed while disassembled. This should be done concurrently with B6.30 and B6.40. |
|          |                       |                         |    | RV-S2    |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S3    |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S4    |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S5    |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S6    |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S7    |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S8    |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S9    |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S10   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S11   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S12   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S13   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S14   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S15   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S16   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S55   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S18   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|          |                       |                         |    | RV-S19   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

**Category:** B-G-1 **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.          | Component Description | Drawing                 | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                              |
|-------------------|-----------------------|-------------------------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |                       |                         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                       |
| B6.50<br>(Cont'd) | Closure Washers       | M-1195<br>and<br>M-1196 |    | RV-S20   |                     |      | VT-1 |                    |   |   | /   |                             | Examination required only if connections are disassembled and is performed while disassembled. This should be done concurrently with B6.30 and B6.40. |
|                   |                       |                         |    | RV-S21   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S22   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S23   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S24   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S25   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S26   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S27   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S28   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S29   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S30   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S31   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S32   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S33   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S34   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S35   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S36   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S37   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S38   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S39   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

**Category:** B-G-1      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.          | Component Description | Drawing                 | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                              |
|-------------------|-----------------------|-------------------------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |                       |                         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                       |
| B6.50<br>(Cont'd) | Closure Washers       | M-1195<br>and<br>M-1196 |    | RV-S40   |                     |      | VT-1 |                    |   |   | /   |                             | Examination required only if connections are disassembled and is performed while disassembled. This should be done concurrently with B6.30 and B6.40. |
|                   |                       |                         |    | RV-S41   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S42   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S43   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S44   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S45   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S46   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S47   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |
|                   |                       |                         |    | RV-S48   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                       |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

**Category:** B-G-2      **Description:** Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments         |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|------------------|
|          |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                  |
| B7.10    | Bolts, Studs, Nuts    | M-1197  |    | RV-CB1   |                     |      | VT-1 | /                  |   |   |     |                             | Conoseal bolting |
|          |                       |         |    | RV-CB2   |                     |      | VT-1 | /                  |   |   |     |                             |                  |
|          |                       |         |    | RV-CB3   |                     |      | VT-1 | /                  |   |   |     |                             |                  |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Reactor Vessel CRD Housings - Reactor Coolant System

Category: B-G-2 Description: Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B7.80    | Bolts, Studs, Nuts    | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

**Category:** B-H      **Description:** Integral Attachments for Vessels

| Item No. | Component Description         | Drawing | IE | Identity               | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                           |
|----------|-------------------------------|---------|----|------------------------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                               |         |    |                        | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                                                                    |
| B8.10    | Integrally Welded Attachments | M-1194  |    | Loop A Inlet Pad       | X                   | or   | X    |                    |   |   |     |                             | These support pads are underneath the inlet and outlet nozzle; are cast, not welded and therefore are not subject to the examination of Cat. B-H.                                                  |
|          |                               |         |    | Loop A Outlet Pad      | X                   | or   | X    |                    |   |   |     |                             |                                                                                                                                                                                                    |
|          |                               |         |    | Loop B Inlet Pad       | X                   | or   | X    |                    |   |   |     |                             |                                                                                                                                                                                                    |
|          |                               |         |    | Loop B Outlet Pad      | X                   | or   | X    |                    |   |   |     |                             |                                                                                                                                                                                                    |
|          |                               |         |    | Support Bracket (90°)  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                    |
|          |                               |         |    | Support Bracket (270°) | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                    |
|          |                               |         |    |                        |                     |      |      |                    |   |   |     |                             | These attachment welds and the vessel wall base metal beneath the two bracket supports will be examined from inside the vessel when the core barrel is removed at the end of the 10-year interval. |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Reactor Vessel - Reactor Coolant System

Category: B-N-1/B-N-2/B-N-3 Description: Interior/Integrally Welded Core Support Structures and Interior Attachments/Removable Core Support Structures

| Item No.                   | Component Description                       | Drawing | IE | Identity | Examination Methods |            |       | Examination Period |       |       |       | Exemption or Relief Request | Comments                                                                                                                                                                                                 |
|----------------------------|---------------------------------------------|---------|----|----------|---------------------|------------|-------|--------------------|-------|-------|-------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            |                                             |         |    |          | Vol.                | Sur.       | Vis.  | 1                  | 2     | 3     | EOI   |                             |                                                                                                                                                                                                          |
| B13.10                     | Vessel Interior                             | M-1199  |    |          |                     |            | VT-3  | /                  | /     | /     |       |                             | Examinations include all accessible areas and also includes the space above and below the reactor core that is made accessible for examination by removal of components during normal refueling outages. |
| B13.20<br>B13.21<br>B13.22 | BWR Only                                    | -----   |    | -----    | Not                 | Applicable | ----- | -----              | ----- | ----- | ----- |                             |                                                                                                                                                                                                          |
| B13.30                     | Interior Attachments within Beltline Region | M-1199  |    |          |                     |            | VT-1  |                    |       |       | /     |                             | Examine all accessible welds.                                                                                                                                                                            |
| B13.31                     | Interior Attachments beyond Beltline Region | M-1199  |    |          |                     |            | VT-3  |                    |       |       | /     |                             | Examine all accessible welds.                                                                                                                                                                            |
| B13.32                     | Core Support Structure                      | M-1199  |    |          |                     |            | VT-3  |                    |       |       | /     |                             | Examine all accessible surfaces. The structure shall be removed from the vessel for examination.                                                                                                         |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

**Category:** B-0 **Description:** Pressure Retaining Welds in CRD Housings

| Item No. | Component Description | Drawing          | IE | Identity | Examination Methods |                   | Examination Period |   |   |   | Exemption or Relief Request | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------|-----------------------|------------------|----|----------|---------------------|-------------------|--------------------|---|---|---|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                       |                  |    |          | Vol. <sup>1</sup>   | Sur. <sup>1</sup> | Vis.               | 1 | 2 | 3 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| B14.10   | Welds in CRD Housing  | M-1198<br>M-1197 |    | RV-CD18  | X                   | X                 |                    |   |   |   | /                           | The Code requires that only 10% of peripheral CRD housings be examined. Volumetric or surface examination is permitted by the Code.<br><br>All pheripheral housings are listed. RV-CD33, RV-CD34, and RV-CD35 were examined during the first interval.<br><br>1 - Either volumetric or surface examination may be performed. Recommend performance of volumetric exam since that was performed during first 10-year interval.<br><br>The examination method performed shall be circled (i.e. (X)) in the appropriate examination method column. |
|          |                       |                  |    | RV-CD19  | X                   | X                 |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD20          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD21          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD22          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD23          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD24          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD25          |    | X        | X                   |                   |                    |   |   | / |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD26          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD27          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD28          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD29          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD30          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD31          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD32          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD33          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD34          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|          |                       | RV-CD35          |    | X        | X                   |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| RV-CD36  | X                     | X                |    |          |                     |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| RV-CD37  | X                     | X                |    |          |                     |                   |                    |   |   |   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Reactor Vessel - Reactor Coolant System

Category: B-P Description: All Pressure Retaining Components

[illegible]



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Steam Generators - Reactor Coolant System

Category: B-B Description: Vessel Pressure Retaining Welds (Non-RPV)

| Item No.                                                                                                                                                                              | Component Description              | Drawing | IE | Identity        | Examination Methods |            |      | Examination Period |    |    |     | Exemption or Relief Request | Comments                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------|----|-----------------|---------------------|------------|------|--------------------|----|----|-----|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                       |                                    |         |    |                 | Vol.                | Sur.       | Vis. | 1                  | 2  | 3  | EOI |                             |                                                                                                                                       |
| B2.30/<br>B2.31/<br>B2.32                                                                                                                                                             | Circumf. and Meridional Head Welds | M-1201  |    | - - - - -       | Not                 | Applicable |      | -                  | -  | -  | -   | -                           | Cast head                                                                                                                             |
| B2.40                                                                                                                                                                                 | Tube Sheet to Head Weld            | M-1201  |    | SG-W6<br>SG-W14 | X<br>X              |            |      | /1                 | /2 | /3 |     |                             | Limited to one vessel in group performing similar functions.<br><br>Portions of both steam generators examined during first interval. |
| <p>1 - Examine from 0° to 120° (clockwise from 0°) using hotside manway centerline as zero reference.</p> <p>2 - Examine from 120° to 240°.</p> <p>3 - Examine from 240° to 360°.</p> |                                    |         |    |                 |                     |            |      |                    |    |    |     |                             |                                                                                                                                       |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Steam Generators - Reactor Coolant System

**Category:** B-D **Description:** Full Penetration Welds of Nozzles in Vessels (Program B)

| Item No.                                    | Component Description        | Drawing | IE | Identity   | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments  |                              |
|---------------------------------------------|------------------------------|---------|----|------------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|-----------|------------------------------|
|                                             |                              |         |    |            | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |           |                              |
| B3.130                                      | Nozzle-to-Vessel Welds       | M-1201  |    | - - - - -  | Not                 | Applicable |      | -                  | - | - | -   | -                           | - - - - - | Nozzles are integrally cast. |
| B3.140                                      | Nozzle Inside Radius Section | M-1201  |    | *From SG-A | X                   |            | /    |                    |   |   |     |                             |           |                              |
|                                             |                              |         |    | *To RCP-A  | X                   |            |      | /                  |   |   |     |                             |           |                              |
|                                             |                              |         |    | *From SG-B | X                   |            |      | /                  |   |   |     |                             |           |                              |
|                                             |                              |         |    | *To RCP-B  | X                   |            |      | /                  |   |   |     |                             |           |                              |
| * No numbering system provided for nozzles. |                              |         |    |            |                     |            |      |                    |   |   |     |                             |           |                              |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Steam Generators - Reactor Coolant System

Category: B-F Description: Dissimilar Welds

| Item No. | Component Description              | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                            |
|----------|------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------|
|          |                                    |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |                                                     |
| B5.70    | Nozzle to Safe End<br>≥ 4"         | M-1144  |    | RC-W6DM  | X                   | X          |      | /                  |   |   |     |                             | One side volumetric exam acceptable per Section XI. |
|          |                                    |         |    | RC-W7DM  | X                   | X          |      | /                  |   |   |     |                             |                                                     |
|          |                                    | M-1151  |    | RC-W36DM | X                   | X          |      |                    | / |   |     |                             |                                                     |
|          |                                    |         |    | RC-W37DM | X                   | X          |      |                    | / |   |     |                             |                                                     |
| B5.80    | Nozzle to Safe End<br>< 4"         | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |                                                     |
| B5.90    | Nozzle to Safe End<br>Socket Welds | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |                                                     |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Steam Generators - Reactor Coolant System

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description       | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                             |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B6.90    | Bolts and Studs             | M-1201  |    | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B6.100   | Flange Surface              | M-1201  |    | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B6.110   | Nuts, Bushings, and Washers | M-1201  |    | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Steam Generators - Reactor Coolant System

Category: B-G-2 Description: Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                          |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
|          |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                   |
| B7.30    | Bolts, Studs, Nuts    | M-1201  |    | SG-B1    |                     |      | VT-1 | /                  |   |   |     |                             | Bolting may be examined:<br>- in place under tension.<br>- when the connection is disassembled.<br>- when the bolting is removed. |
|          |                       |         |    | SG-B2    |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B3    |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B4    |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B5    |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B6    |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B7    |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B8    |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B9    |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B10   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B11   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B12   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B13   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B14   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B15   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B16   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B17   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B18   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|          |                       |         |    | SG-B19   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Steam Generators - Reactor Coolant System

Category: B-G-2 Description: Pressure Retaining Bolting 2" Diameter and Less

| Item No.          | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                          |
|-------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
|                   |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                   |
| B7.30<br>(Cont'd) | Bolts, Studs, Nuts    | M-1201  |    | SG-B20   |                     |      | VT-1 |                    | / |   |     |                             | Bolting may be examined:<br>- in place under tension.<br>- when the connection is disassembled.<br>- when the bolting is removed. |
|                   |                       |         |    | SG-B21   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B22   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B23   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B24   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B25   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B26   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B27   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B28   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B29   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B30   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B31   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B32   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B33   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B34   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B35   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B36   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B37   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B38   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B39   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Steam Generators - Reactor Coolant System

Category: B-G-2 Description: Pressure Retaining Bolting 2" Diameter and Less

| Item No.          | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                          |
|-------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
|                   |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                   |
| B7.30<br>(Cont'd) | Bolts, Studs, Nuts    | M-1201  |    | SG-B40   |                     |      | VT-1 | /                  |   |   |     |                             | Bolting may be examined:<br>- in place under tension.<br>- when the connection is disassembled.<br>- when the bolting is removed. |
|                   |                       |         |    | SG-B41   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B42   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B43   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B44   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B45   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B46   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B47   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B48   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B49   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B50   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B51   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B52   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B53   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B54   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B55   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B56   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B57   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Steam Generators - Reactor Coolant System

Category: B-G-2 Description: Pressure Retaining Bolting 2" Diameter and Less

| Item No.          | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                          |
|-------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
|                   |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                   |
| B7.30<br>(Cont'd) | Bolts, Studs, Nuts    | M-1201  |    | SG-B58   |                     |      | VT-1 | /                  |   |   |     |                             | Bolting may be examined:<br>- in place under tension.<br>- when the connection is disassembled.<br>- when the bolting is removed. |
|                   |                       |         |    | SG-B59   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B60   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B61   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B62   |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B63   |                     |      | VT-1 |                    |   | / |     |                             |                                                                                                                                   |
|                   |                       |         |    | SG-B64   |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Steam Generators - Reactor Coolant System

Category: B-H Description: Integrally Welded Attachments

| Item No. | Component Description         | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-------------------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                               |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B8.30    | Integrally Welded Attachments | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Steam Generators - Reactor Coolant System

**Category:** B-Q **Description:** Steam Generator Tubing

| Item No. | Component Description             | Drawing | IE | Identity | Examination Methods                                                                      |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |  |  |
|----------|-----------------------------------|---------|----|----------|------------------------------------------------------------------------------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|--|--|
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| B16.10   | SG Tubing in Straight Tube Design |         | }  |          | Not provided in this portion of the ISI plan. Refer to Kewaunee Technical Specification. |      |      |                    |   |   |     |                             |          |  |  |
| B16.20   | SG Tubing in U-Tube Design        |         |    |          |                                                                                          |      |      |                    |   |   |     |                             |          |  |  |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Steam Generators - Reactor Coolant System

Category: B-P Description: All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Pressurizer - Reactor Coolant System

Category: B-B Description: Vessel Pressure Retaining Welds (Non-RPV)

| Item No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Component Description                | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |    |    |     | Exemption or Relief Request | Comments                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|----|----|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                      |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2  | 3  | EOI |                             |                                                                                                                   |
| B2.10/<br>B2.11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Shell-to-Head Weld<br>Circumf. Welds | M-1200  |    | P-W3     | X                   |            |      | /1                 | /2 | /3 |     |                             | Examination covers only up to<br>1 foot from weld P-W3.<br><br>Examination covers only up to<br>1 foot from P-W5. |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                      |         |    | P-W5     | X                   |            |      | /1                 | /2 | /3 |     |                             |                                                                                                                   |
| B2.10/<br>B2.12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Shell-to-Head<br>Longitudinal Welds  | M-1200  |    | P-W2     | X                   |            |      | /4                 | /5 | /6 |     |                             |                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                      |         |    | P-W1     | X                   |            |      | /7                 | /8 | /9 |     |                             |                                                                                                                   |
| B2.20/<br>B2.21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Circumf. Head Welds                  | M-1200  |    | - - - -  | Not                 | Applicable | -    | -                  | -  | -  | -   | -                           |                                                                                                                   |
| B2.20/<br>B2.22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Meridional Head<br>Welds             | M-1200  |    | - - - -  | Not                 | Applicable | -    | -                  | -  | -  | -   | -                           |                                                                                                                   |
| 1 - Examine weld from 0° to 120° (clockwise from 0°) using manway centerline as zero reference.<br>2 - Examine weld from 120° to 240°.<br>3 - Examine weld from 240° to 360°.<br>4 - Examine weld from 0" to 4" using P-W3 as zero reference.<br>5 - Examine weld from 4" to 8" using P-W3 as zero reference.<br>6 - Examine weld from 8" to 12" using P-W3 as zero reference.<br>7 - Examine weld from 0" to 4" using P-W5 as zero reference.<br>8 - Examine weld from 4" to 8" using P-W5 as zero reference.<br>9 - Examine weld from 8" to 12" using P-W5 as zero reference. |                                      |         |    |          |                     |            |      |                    |    |    |     |                             |                                                                                                                   |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Pressurizer - Reactor Coolant System

Category: B-D Description: Full Penetration Welds of Nozzles in Vessel (Program B)

| Item No. | Component Description                    | Drawing | IE | Identity                                            | Examination Methods   |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                      |
|----------|------------------------------------------|---------|----|-----------------------------------------------------|-----------------------|------|------|--------------------|---|---|-----|-----------------------------|---------------------------------------------------------------|
|          |                                          |         |    |                                                     | Vol.                  | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                               |
| B3.110   | Pressurizer Nozzle to Vessel Welds       | M-1200  |    | - - - - -                                           | Not                   | Appl | cabl | -                  | - |   | - - | - - - - -                   | Nozzles are integrally cast.                                  |
| B3.120   | Pressurizer Nozzle Inside Radius Section | M-1200  |    | *<br>Safety<br>Safety<br>Relief<br>Spray<br>Surge** | X<br>X<br>X<br>X<br>X |      |      |                    |   | / | /   |                             | These examinations can be done concurrently with those of B-F |

\* Nozzles not identified by number.  
 \*\* Not found on WPSC isometric or component drawings.

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Pressurizer - Reactor Coolant System

**Category:** B-E      **Description:** Partial Penetration Welds in Vessels

| Item No. | Component Description                | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                          |
|----------|--------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|---------------------------------------------------|
|          |                                      |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                   |
| B4.20    | Pressurizer Heater Penetration Welds |         |    |          |                     |      | VT-2 | /                  | / | / |     |                             | Examine 9% of welds each period during leak test. |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Pressurizer - Reactor Coolant System

Category: B-F Description: Dissimilar Metal Welds

| Item No. | Component Description              | Drawing | IE  | Identity             | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                      |
|----------|------------------------------------|---------|-----|----------------------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|---------------------------------------------------------------|
|          |                                    |         |     |                      | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |                                                               |
| B5.40    | Nozzle to Safe End<br>≥ 4"         | M-1159  |     | RC-W67DM<br>(Surge)  | X                   | X          |      |                    |   | / |     |                             | These examinations can be done concurrently with those of B-D |
|          |                                    |         |     | PR-W1DM<br>(Relief)  | X                   | X          |      | /                  |   |   |     |                             |                                                               |
|          |                                    | M-1160  |     | PR-W26DM<br>(Safety) | X                   | X          |      |                    | / |   |     |                             |                                                               |
|          |                                    |         |     | PR-W16DM<br>(Safety) | X                   | X          |      |                    | / |   |     |                             |                                                               |
|          |                                    | M-1161  |     | PS-W61DM<br>(Spray)  | X                   | X          |      | /                  |   |   |     |                             |                                                               |
| B5.50    | Nozzle to Safe End<br>< 4"         | - - - - | - - | - - - - -            | Not                 | Applicable | -    | -                  | - | - | -   | E1-1                        |                                                               |
| B5.60    | Nozzle to Safe End<br>Socket Welds | - - - - | - - | - - - - -            | Not                 | Applicable | -    | -                  | - | - | -   | E1-1                        |                                                               |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Pressurizer - Reactor Coolant System

**Category:** B-G-1 **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description   | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-------------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                         |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B6.60    | Bolts and Studs         | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B6.70    | Flange Surface          | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B6.80    | Nuts, Bushings, Washers | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Pressurizer - Reactor Coolant System

Category: B-G-2 Description: Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                          |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
|          |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                   |
| B7.20    | Bolts, Studs, Nuts    | M-1200  |    | P-B1     |                     |      | VT-1 | /                  |   |   |     |                             | Bolting may be examined:<br>- in place under tension.<br>- when the connection is disassembled.<br>- when the bolting is removed. |
|          |                       |         |    | P-B2     |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B3     |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B4     |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B5     |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B6     |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B7     |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B8     |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B9     |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B10    |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B11    |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B12    |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B13    |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B14    |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B15    |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |
|          |                       |         |    | P-B16    |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                   |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Pressurizer - Reactor Coolant System

Category: B-H Description: Integral Attachments for Vessels

| Item No.                                                                                                                                                                                          | Component Description         | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |    |    |     | Exemption or Relief Request | Comments |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------|----|----------|---------------------|------|------|--------------------|----|----|-----|-----------------------------|----------|
|                                                                                                                                                                                                   |                               |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2  | 3  | EOI |                             |          |
| B8.20                                                                                                                                                                                             | Integrally Welded Attachments | M-1200  |    | P-W6     |                     | X    |      | /1                 | /2 | /3 |     |                             |          |
| <p>1 - Examine weld from 0° to 120° (clockwise from 0°) using longitudinal weld P-W1 as zero reference.</p> <p>2 - Examine weld from 120° to 240°.</p> <p>3 - Examine weld from 240° to 360°.</p> |                               |         |    |          |                     |      |      |                    |    |    |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Pressurizer - Reactor Coolant System

Category: B-P Description: All Pressure Retaining Components

| Item No. | Component Description                       | Drawing | IE | Identity | Examination Methods |      |       | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------------------|---------|----|----------|---------------------|------|-------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                             |         |    |          | Vol.                | Sur. | Vis.  | 1                  | 2 | 3 | EOI |                             |          |
|          | Refer to pressure test section for items B1 |         |    |          | .20                 | and  | 15.21 |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - RC Pumps - Reactor Coolant System

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description              | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                                                                                                                             |
|----------|------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                                    |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                                                                                                                                                                      |
| B6.180   | Bolts and Studs (Main Flange Only) | M-1205  |    | Pump 1A: |                     |      |      |                    |   |   |     |                             | Main flange bolting is 4.5" diameter. All bolts for both pumps were examined during 1st 10-year interval. Pump selection is arbitrary for 2nd 10-year interval.<br><br>Bolting may be examined:<br>- in place under tension.<br>- when the connection is disassembled.<br>- when bolting is removed. |
|          |                                    |         |    | RCP-B1   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B2   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B3   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B4   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B5   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B6   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B7   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B8   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B9   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B10  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B11  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B12  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B13  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B14  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B15  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B16  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B17  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B18  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|          |                                    |         |    | RCP-B19  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - RC Pumps - Reactor Coolant System

**Category:** B-G-1      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.           | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                                                                                                                             |
|--------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| B6.180<br>(Cont'd) | Bolts and Studs       | M-1205  |    | RCP-B20  | X                   |      |      |                    |   |   | /   |                             | Main flange bolting is 4.5" diameter. All bolts for both pumps were examined during 1st 10-year interval. Pump selection is arbitrary for 2nd 10-year interval.<br><br>Bolting may be examined:<br>- in place under tension.<br>- when the connection is disassembled.<br>- when bolting is removed. |
|                    |                       |         |    | RCP-B21  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B22  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B23  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B24  | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | Pump 1B: |                     |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B25  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B26  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B27  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B28  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B29  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B30  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B31  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B32  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B33  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B34  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B35  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B36  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B37  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B38  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - RC Pumps - Reactor Coolant System

**Category:** B-G-1      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.           | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                                                                                                                             |
|--------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| B6.180<br>(Cont'd) | Bolts and Studs       | M-1205  |    | RCP-B39  | X                   |      |      |                    |   |   |     |                             | Main flange bolting is 4.5" diameter. All bolts for both pumps were examined during 1st 10-year interval. Pump selection is arbitrary for 2nd 10-year interval.<br><br>Bolting may be examined:<br>- in place under tension.<br>- when the connection is disassembled.<br>- when bolting is removed. |
|                    |                       |         |    | RCP-B40  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B41  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B42  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B43  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B44  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B45  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B46  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B47  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |
|                    |                       |         |    | RCP-B48  | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                                                                                                      |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - RC Pumps - Reactor Coolant System

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                    |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
|          |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                             |
| B6.190   | Flange Surface        | M-1205  |    | Pump A:  |                     |      |      |                    |   |   |     |                             | Examine 1" annular surface of flange when connection is disassembled. Examine flange surfaces corresponding to bolts examined (see B6.180). |
|          |                       |         |    | RCP-B1   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B2   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B3   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B4   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B5   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B6   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B7   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B8   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B9   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B10  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B11  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B12  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B13  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B14  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B15  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B16  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B17  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B18  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|          |                       |         |    | RCP-B19  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - RC Pumps - Reactor Coolant System

**Category:** B-G-1      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.           | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                    |
|--------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
|                    |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                             |
| B6.190<br>(Cont'd) | Flange Surface        | M-1205  |    | RCP-B20  |                     |      | VT-1 |                    |   |   | /   |                             | Examine 1" annular surface of flange when connection is disassembled. Examine flange surfaces corresponding to bolts examined (see B6.180). |
|                    |                       |         |    | RCP-B21  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B22  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B23  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B24  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                             |
|                    |                       |         |    | Pump B:  |                     |      |      |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B25  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B26  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B27  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B28  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B29  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B30  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B31  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B32  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B33  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B34  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B35  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B36  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B37  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B38  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - RC Pumps - Reactor Coolant System

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.           | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                    |
|--------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
|                    |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                             |
| B6.190<br>(Cont'd) | Flange Surface        | M-1205  |    | RCP-B39  |                     |      | VT-1 |                    |   |   |     |                             | Examine 1" annular surface of flange when connection is disassembled. Examine flange surfaces corresponding to bolts examined (see B6.180). |
|                    |                       |         |    | RCP-B40  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B41  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B42  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B43  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B44  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B45  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B46  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B47  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |
|                    |                       |         |    | RCP-B48  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                             |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - RC Pumps - Reactor Coolant System

**Category:** B-G-1      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description                                            | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                              |
|----------|------------------------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| B6.200   | Nuts, Bushings & Washers<br>(Nuts & Bushings are not applicable) | M-1205  |    | Pump A:  |                     |      |      |                    |   |   |     |                             | Although washers are not identified on drawings, assume they exist. Assume bushings do not exist.<br><br>Examine washers corresponding to bolts examined (see 6.180). |
|          |                                                                  |         |    | RCP-B1   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B2   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B3   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B4   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B5   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B6   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B7   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B8   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B9   |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B10  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B11  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B12  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B13  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B14  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B15  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B16  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B17  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B18  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|          |                                                                  |         |    | RCP-B19  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - RC Pumps - Reactor Coolant System

**Category:** B-G-1      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.           | Component Description    | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                              |
|--------------------|--------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    |                          |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                                       |
| B6.200<br>(Cont'd) | Nuts, Bushings & Washers | M-1205  |    | RCP-B20  |                     |      | VT-1 |                    |   |   | /   |                             | Although washers are not identified on drawings, assume they exist. Assume bushings do not exist.<br><br>Examine washers corresponding to bolts examined (see 6.180). |
|                    |                          |         |    | RCP-B21  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B22  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B23  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B24  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                       |
|                    |                          |         |    | Pump B:  |                     |      |      |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B25  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B26  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B27  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B28  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B29  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B30  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B31  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B32  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B33  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B34  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B35  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B36  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B37  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B38  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - RC Pumps - Reactor Coolant System

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No.           | Component Description    | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                              |
|--------------------|--------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| B6.200<br>(Cont'd) | Nuts, Bushings & Washers | M-1205  |    | RCP-B39  |                     |      | VT-1 |                    |   |   |     |                             | Although washers are not identified on drawings, assume they exist. Assume bushings do not exist.<br><br>Examine washers corresponding to bolts examined (see 6.180). |
|                    |                          |         |    | RCP-B40  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B41  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B42  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B43  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B44  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B45  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B46  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B47  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |
|                    |                          |         |    | RCP-B48  |                     |      | VT-1 |                    |   |   |     |                             |                                                                                                                                                                       |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Pumps - Reactor Coolant System

Category: B-G-2 Description: Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                                                                                                                        |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| B7.60    | Bolts, Studs, Nuts    | M-1205  |    | Pump A:  |                     |      |      |                    |   |   |     |                             | Bolts are 2" diameter; formerly Cat. B-G-1 (74S75).<br><br>Bolting may be examined:<br>- in place under tension.<br>- when connection is disassembled.<br>- when bolting is removed.<br><br>Sequence of exams may be reversed from one pump to the other depending upon maintenance activities. |
|          |                       |         |    | RCP-B49  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                 |
|          |                       |         |    | RCP-B50  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                 |
|          |                       |         |    | RCP-B51  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                 |
|          |                       |         |    | RCP-B52  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                 |
|          |                       |         |    | RCP-B53  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                 |
|          |                       |         |    | RCP-B54  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                 |
|          |                       |         |    | RCP-B55  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                 |
|          |                       |         |    | RCP-B56  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                 |
|          |                       |         |    | RCP-B57  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                 |
|          |                       |         |    | RCP-B58  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                 |
|          |                       |         |    | RCP-B59  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                 |
|          |                       |         |    | RCP-B60  |                     |      | VT-1 |                    |   |   | /   |                             |                                                                                                                                                                                                                                                                                                 |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Pumps - Reactor Coolant System

**Category:** B-G-2      **Description:** Pressure Retaining Bolting 2" Diameter and Less

| Item No.          | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                                                                                                                                       |
|-------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| B7.60<br>(Cont'd) | Bolts, Studs, Nuts    | M-1205  |    | Pump B:  |                     |      |      |                    |   |   |     |                             | Bolts are 2" diameter;<br>formerly Cat. B-G-1 (74S75).<br><br>Bolting may be examined:<br>- in place under tension.<br>- when connection is<br>disassembled.<br>- when bolting is removed.<br><br>Sequence of exams may be<br>reversed from one pump to the<br>other depending upon<br>maintenance activities. |
|                   |                       |         |    | RCP-B61  |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                                                                                                                                                                                                |
|                   |                       |         |    | RCP-B62  |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                                                                                                                                                                                                |
|                   |                       |         |    | RCP-B63  |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                                                                                                                                                                                                |
|                   |                       |         |    | RCP-B64  |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                                                                                                                                                                                                |
|                   |                       |         |    | RCP-B65  |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                                                                                                                                                                                                |
|                   |                       |         |    | RCP-B66  |                     |      | VT-1 | /                  |   |   |     |                             |                                                                                                                                                                                                                                                                                                                |
|                   |                       |         |    | RCP-B67  |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                                                                                                                                                                                                |
|                   |                       |         |    | RCP-B68  |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                                                                                                                                                                                                |
|                   |                       |         |    | RCP-B69  |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                                                                                                                                                                                                |
|                   |                       |         |    | RCP-B70  |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                                                                                                                                                                                                |
|                   |                       |         |    | RCP-B71  |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                                                                                                                                                                                                |
|                   |                       |         |    | RCP-B72  |                     |      | VT-1 |                    | / |   |     |                             |                                                                                                                                                                                                                                                                                                                |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Pumps - Reactor Coolant System

Category: B-K-1 Description: Integral Attachments for Piping, Pumps, Valves

| Item No. | Component Description               | Drawing | IE | Identity | Examination Methods |      |            | Examination Period |   |   |     | Exemption or Relief Request | Comments                                           |
|----------|-------------------------------------|---------|----|----------|---------------------|------|------------|--------------------|---|---|-----|-----------------------------|----------------------------------------------------|
|          |                                     |         |    |          | Vol.                | Sur. | Vis.       | 1                  | 2 | 3 | EOI |                             |                                                    |
| B10.20   | Pumps Integrally Welded Attachments | M-1204  |    | Pump A:  |                     |      |            |                    |   |   |     |                             |                                                    |
|          |                                     |         |    | RCP-CS1  |                     | X    |            | /                  |   |   |     |                             |                                                    |
|          |                                     |         |    | RCP-CS2  |                     | X    |            | /                  |   |   |     |                             |                                                    |
|          |                                     |         |    | RCP-CS3  |                     | X    |            | /                  |   |   |     |                             |                                                    |
|          |                                     |         |    | Pump B:  |                     |      |            |                    |   |   |     |                             |                                                    |
|          |                                     |         |    | RCP-CS4  | - - -               | Not  | Applicable | -                  | - | - | -   |                             | Support 'feet' are integrally cast on Pump B only. |
|          |                                     |         |    | RCP-CS5  | - - -               | Not  | Applicable | -                  | - | - | -   |                             |                                                    |
|          |                                     |         |    | RCP-CS6  | - - -               | Not  | Applicable | -                  | - | - | -   |                             |                                                    |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Pumps - Reactor Coolant System

**Category:** B-L-1 **Description:** Pressure Retaining Welds in Pump Casings

| Item No. | Component Description       | Drawing | IE | Identity | Examination Methods |                |                   | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                |
|----------|-----------------------------|---------|----|----------|---------------------|----------------|-------------------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
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| B12.10   | Pump Casing Welds<br>Pump A | M-1203  |    | RCP-W1   | X <sup>1</sup>      | X <sup>1</sup> | VT-1 <sup>1</sup> |                    |   |   |     | RR-1-2                      | <sup>1</sup> These examination methods are to be used in lieu of the volumetric examination required by Section XI (see Relief Request) |
|          | Pump Casing Welds<br>Pump B | - - - - | -  | - - - -  | Not                 | Applicable     | -                 | -                  | - | - | -   | - - - -                     |                                                                                                                                         |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - RC Pump Casings - Reactor Coolant System

Category: B-L-2 Description: Pump Casings

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |       | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                             |
|----------|-----------------------|---------|----|----------|---------------------|------|-------|--------------------|---|---|-----|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
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| B12.20   | RC Pump Casings       | M-1202  |    | Pump A   |                     |      | VT-3* |                    |   |   | /   | RR-1-2                      | *VT-3 examination of internal casing will only be performed if pump is completely disassembled for maintenance (see Relief Request). |
|          |                       |         |    | Pump B   |                     |      | VT-3* |                    |   |   | /   | RR-1-2                      |                                                                                                                                      |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - RC Pumps - Reactor Coolant System

**Category:** B-P **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - Reactor Coolant System

Category: B-F Description: Pressure Retaining Dissimilar Metal Welds

| Item No. | Component Description                              | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|----------------------------------------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B5.130   | Dissimilar Metal Butt Welds<br>Pipe Size $\geq$ 4" | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B5.140   | Dissimilar Metal Butt Welds<br>Pipe Size $<$ 4"    | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B5.150   | Dissimilar Metal Socket Welds                      | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - Reactor Coolant System

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description    | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B6.150   | Bolts and Studs          | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B6.160   | Flange Surface           | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B6.170   | Nuts, Bushings & Washers | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Reactor Coolant System

**Category:** B-G-2 **Description:** Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B7.50    | Bolts, Studs, Nuts    | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Reactor Coolant System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - Reactor Coolant System

Category: B-J (1974S1975) Description: Pressure Retaining Welds in Piping

| Item No.         | Component Description                     | Drawing | IE | Identity           | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-------------------------------------------|---------|----|--------------------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.5<br>(Cont'd) | Circumferential & Longitudinal Pipe Welds | M-1151  |    | RC-W31             | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RC-W69             | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RC-W59             | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RC-W35             | X                   |      |      |                    | / |   |     |                             |          |
|                  |                                           |         |    | RC-W38             | X                   |      |      |                    |   | / |     |                             |          |
|                  |                                           |         |    | RC-W39/<br>40L/41L | X                   |      |      |                    |   | / |     | RR-1-3                      |          |
|                  |                                           |         |    | RC-W42/<br>40L/41L | X                   |      |      |                    |   |   |     | RR-1-3                      |          |
|                  |                                           |         |    | RC-W45/<br>46L/47L | X                   |      |      |                    |   |   |     | RR-1-3                      |          |
|                  |                                           |         |    | RC-W48/<br>46L/47L | X                   |      |      |                    |   | / |     | RR-1-3                      |          |
|                  |                                           |         |    | RC-W49             | X                   |      |      |                    |   | / |     |                             |          |
|                  |                                           |         |    | RC-W55             | X                   |      |      |                    |   | / |     |                             |          |
|                  |                                           |         |    | RC-W56             | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RC-W57             | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RC-W60             | X                   |      |      | /                  |   |   |     |                             |          |
|                  |                                           |         |    | RC-W61             | X                   |      |      | /                  |   |   |     | RR-1-1                      |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Pressurizer Surge and Relief System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments              |
|------------------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------|
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| B4.5<br>(Cont'd) | Circumferential & Longitudinal Pipe Welds | M-1159  |    | PR-W2    | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | PR-W3    | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | PR-W4    | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | PR-W5    | X                   |      |      |                    | / |   |     |                             |                       |
|                  |                                           |         |    | PR-W6    | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | PR-W7    | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | PR-W8    | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | PR-W9    | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry |
|                  |                                           |         |    | PR-W10   | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | PR-W11   | X                   |      |      |                    | / |   |     |                             | Inaccessible/supports |
|                  |                                           |         |    | PR-W12   | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | PR-W13   | +                   | +    |      |                    |   |   |     | Inaccessible/geometry       |                       |
|                  |                                           |         |    | PR-W14   | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | PR-W15   | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | RC-W62   | X                   |      |      | /                  |   |   |     |                             |                       |
|                  |                                           |         |    | RC-W63   | X                   |      |      | /                  |   |   |     |                             |                       |
|                  |                                           |         |    | RC-W64   | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | RC-W65   | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | RC-W66   | X                   |      |      | /                  |   |   |     |                             |                       |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Reactor Coolant System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description                          | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.6     | Branch Pipe Connection Welds Exceeding 6" Dia. | M-1144  |    | RC-W3BC  | X                   |      |      | /                  |   |   |     |                             |          |
|          |                                                |         |    | RC-W23BC | X                   |      |      |                    |   |   |     |                             |          |
|          |                                                | M-1151  |    | RC-W33BC | X                   |      |      |                    |   |   |     |                             |          |
|          |                                                |         |    | RC-W34BC | X                   |      |      | /                  |   |   |     |                             |          |
|          |                                                |         |    | RC-W50BC | X                   |      |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Reactor Coolant System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description                       | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |  |  |
|----------|---------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|--|--|
|          |                                             |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |  |  |
| B4.7     | Branch Pipe Connection Welds 6" and Smaller | M-1144  |    | RC-W4BC  |                     | X    |      |                    |   |   |     |                             |          |  |  |
|          |                                             |         |    | RC-W13BC |                     | X    |      | /                  |   |   |     |                             |          |  |  |
|          |                                             |         |    | RC-W14BC |                     | X    |      |                    |   |   |     |                             |          |  |  |
|          |                                             |         |    | RC-W21BC |                     | X    |      |                    |   |   |     |                             |          |  |  |
|          |                                             |         |    | RC-W22BC |                     | X    |      | /                  |   |   |     |                             |          |  |  |
|          |                                             |         |    | RC-W68BC |                     | X    |      |                    |   |   |     |                             |          |  |  |
|          |                                             | M-1151  |    | RC-W32BC |                     | X    |      |                    |   |   |     |                             |          |  |  |
|          |                                             |         |    | RC-W43BC |                     | X    |      |                    |   |   |     |                             |          |  |  |
|          |                                             |         |    | RC-W44BC |                     | X    |      |                    |   |   |     |                             |          |  |  |
|          |                                             |         |    | RC-W51BC |                     | X    |      |                    |   |   |     |                             |          |  |  |
|          |                                             |         |    | RC-W52BC |                     | X    |      |                    |   |   |     |                             |          |  |  |
|          |                                             |         |    | RC-W53BC |                     | X    |      |                    |   | / |     |                             |          |  |  |
|          |                                             |         |    | RC-W54BC |                     | X    |      |                    |   | / |     |                             |          |  |  |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Reactor Coolant

**Category:** B-J (1974S1975) **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B4.8     | Socket Welds          | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Reactor Coolant System

**Category:** B-K-1      **Description:** Integral Attachments for Piping, Pumps, Valves

| Item No. | Component Description      | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|----------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                            |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B10.10   | Piping Integral Attachment | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Reactor Coolant System

**Category:** B-P **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - Residual Heat Removal

Category: B-F Description: Pressure Retaining Dissimilar Metal Welds

| Item No. | Component Description                              | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|----------------------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                    |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B5.130   | Dissimilar Metal Butt Welds<br>Pipe Size $\geq$ 4" | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B5.140   | Dissimilar Metal Butt Welds<br>Pipe Size < 4"      | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B5.150   | Dissimilar Metal Socket Welds                      | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - Residual Heat Removal

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description    | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                          |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B6.150   | Bolts and Studs          | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B6.160   | Flange Surface           | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B6.170   | Nuts, Bushings & Washers | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Residual Heat Removal

Category: B-G-2 Description: Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B7.50    | Bolts, Studs, Nuts    | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - Residual Heat Removal

Category: B-J (1974S1975) Description: Pressure Retaining Welds in Piping

| Item No. | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                           |
|----------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------------------------------------------------|
|          |                                           |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                    |
| B4.5     | Circumferential & Longitudinal Pipe Welds | M-1145  |    | RHR-W1   | X                   |      |      |                    |   |   |     |                             | Inaccessible/supports<br><br>Inaccessible/geometry |
|          |                                           |         |    | RHR-W2   | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W3   | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W4   | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W5   | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W6   | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W7   | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W8   | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W9   | X                   |      |      |                    | / |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W10  | +                   | +    |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W11  | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W12  | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W13  | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W14  | X                   |      |      |                    | / |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W15  | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W16  | X                   |      |      |                    | / |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W17  | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W18  | X                   |      |      |                    |   |   |     |                             |                                                    |
|          |                                           |         |    | RHR-W19  | X                   |      |      |                    | / |   |     |                             |                                                    |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Residual Heat Removal

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|                  |                                           |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B4.5<br>(Cont'd) | Circumferential & Longitudinal Pipe Welds | M-1145  |    | RHR-W20  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W21  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W22  | X                   |      |      | /                  |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W23  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W24  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           | M-1153  |    | RHR-W25  | X                   |      |      | /                  |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W26  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W27  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W28  | X                   |      |      |                    |   | / |     |                             |          |
|                  |                                           |         |    | RHR-W29  | X                   |      |      |                    |   | / |     |                             |          |
|                  |                                           |         |    | RHR-W30  | X                   |      |      |                    |   |   |     | Inaccessible/supports       |          |
|                  |                                           |         |    | RHR-W31  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W32  | +                   | +    |      |                    |   |   |     | Inaccessible/geometry       |          |
|                  |                                           |         |    | RHR-W33  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W35  | X                   |      |      |                    |   | / |     |                             |          |
|                  |                                           |         |    | RHR-W36  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W37  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W38  | X                   |      |      | /                  |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W39  | X                   |      |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Residual Heat Removal

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.5<br>(Cont'd) | Circumferential & Longitudinal Pipe Welds | M-1153  |    | RHR-W40  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W41  | X                   |      |      | /                  |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W42  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W43  | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | RHR-W44  | X                   |      |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Residual Heat Removal

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description                              | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|----------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                    |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B4.6     | Branch Pipe Connection Welds Exceeding 6" Diameter | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B4.7     | Branch Pipe Connection Welds 6" and Smaller        | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B4.8     | Socket Welds                                       | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Residual Heat Removal

**Category:** B-K-1 **Description:** Integral Attachments for Piping

| Item No.                                                                                                             | Component Description                | Drawing | IE | Identity <sup>1</sup> | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments      |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------|----|-----------------------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|---------------|
|                                                                                                                      |                                      |         |    |                       | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |               |
| B10.10                                                                                                               | Integrally Welded Piping Attachments | M-1145  |    | R-RHR-H1              |                     | X    |      |                    | / |   |     |                             | Lugs 1" thick |
|                                                                                                                      |                                      |         |    | R-RHR-H2              |                     | X    |      |                    | / |   |     | Lugs 1" thick               |               |
|                                                                                                                      |                                      |         |    | R-RHR-H3              |                     | X    |      |                    | / |   |     | Lugs 2" thick               |               |
|                                                                                                                      |                                      |         |    | R-RHR-H4              |                     | X    |      |                    | / |   |     | Lugs 1" thick               |               |
|                                                                                                                      |                                      | M-1153  |    | RHR-H23               |                     | X    |      | /                  |   |   |     | Elbow lug 3/4" thick        |               |
| 1 - The identification numbers correspond to the component supports where the integral piping attachments are found. |                                      |         |    |                       |                     |      |      |                    |   |   |     |                             |               |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Residual Heat Removal

**Category:** B-P **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-F      **Description:** Pressure Retaining Dissimilar Metal Welds

| Item No. | Component Description                                | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|------------------------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                      |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B5.130   | Dissimilar Metal Butt Welds<br>Pipe Size <u>≥</u> 4" | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B5.140   | Dissimilar Metal Butt Welds<br>Pipe Size < 4"        | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B5.150   | Dissimilar Metal Socket Welds                        | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-G-1 **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description    | Drawing | IE  | Identity  | Examination Methods |       |       | Examination Period |   |   |       | Exemption or Relief Request | Comments |
|----------|--------------------------|---------|-----|-----------|---------------------|-------|-------|--------------------|---|---|-------|-----------------------------|----------|
|          |                          |         |     |           | Vol.                | Sur.  | Vis.  | 1                  | 2 | 3 | EOI   |                             |          |
| B6.150   | Bolts and Studs          | - - - - | - - | - - - - - | Not                 | Appl' | cable | -                  |   |   | - - - | - - - - -                   |          |
| B6.160   | Flange Surface           | - - - - | - - | - - - - - | Not                 | Appl' | cable | -                  |   |   | - - - | - - - - -                   |          |
| B6.170   | Nuts, Bushings & Washers | - - - - | - - | - - - - - | Not                 | Appl' | cable | -                  |   |   | - - - | - - - - -                   |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-G-2 **Description:** Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B7.50    | Bolts, Studs, Nuts    | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                       |
|----------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|------------------------------------------------|
|          |                                           |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                |
| B4.5     | Circumferential & Longitudinal Pipe Welds | M-1144  |    | SI-W12   | X                   |      |      |                    | / |   |     | RR-1-1                      | Inaccessible/supports<br>Inaccessible/geometry |
|          |                                           |         |    | SI-W11B  | X                   |      |      |                    |   |   |     |                             |                                                |
|          |                                           | M-1145  |    | SI-W113  | X                   |      |      |                    |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W114  | X                   |      |      |                    |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W115  | X                   |      | /    |                    |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W116  | X                   |      |      |                    |   |   |     |                             |                                                |
|          |                                           | M-1145  |    | SI-W117  | X                   |      |      |                    |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W118  | X                   |      | /    |                    |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W119  | X                   |      |      |                    |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W120  | +                   | +    |      |                    |   |   |     |                             |                                                |
|          |                                           | M-1146  |    | SI-W121  | X                   |      |      | /                  |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W122  | X                   |      | /    |                    |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W123  | X                   |      |      |                    |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W13   | X                   |      |      |                    |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W14   | X                   |      |      |                    |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W15   | X                   |      | /    |                    |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W16   | X                   |      |      |                    |   |   |     |                             |                                                |
|          |                                           |         |    | SI-W17   | X                   |      |      |                    |   |   |     |                             |                                                |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.5<br>(Cont'd) | Circumferential & Longitudinal Pipe Welds | M-1146  |    | SI-W18   | X                   |      |      |                    |   | / |     |                             |          |
|                  |                                           |         |    | SI-W19   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W20   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W21   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W22   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W23   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W24   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W25   | X                   |      |      |                    |   | / |     |                             |          |
|                  |                                           |         |    | SI-W26   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W27   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W28   | X                   |      |      |                    |   | / |     |                             |          |
|                  |                                           |         |    | SI-W43   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W44   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W45   | X                   |      |      | /                  |   |   |     |                             |          |
|                  |                                           |         |    | SI-W46   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W47   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W48   | X                   |      |      | /                  |   |   |     |                             |          |
|                  |                                           |         |    | SI-W49   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | SI-W50   | X                   |      |      |                    |   |   |     |                             |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments              |
|------------------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------|
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| B4.5<br>(Cont'd) | Circumferential & Longitudinal Pipe Welds | M-1152  |    | SI-W70   | X                   |      |      |                    |   |   |     |                             | Inaccessible/geometry |
|                  |                                           |         |    | SI-W71   | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | SI-W72   | X                   |      |      | /                  |   |   |     |                             |                       |
|                  |                                           |         |    | SI-W73   | X                   |      |      | /                  |   |   |     |                             |                       |
|                  |                                           |         |    | SI-W74   | +                   | +    |      |                    |   |   |     |                             |                       |
|                  |                                           | SI-W75  |    | .X       |                     |      |      |                    |   |   |     |                             |                       |
|                  |                                           | SI-W76  |    | X        |                     |      | /    |                    |   |   |     |                             |                       |
|                  |                                           | M-1154  |    | SI-W89   | X                   |      |      | /                  |   |   |     |                             |                       |
|                  |                                           |         |    | SI-W90   | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | SI-W105  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | SI-W106  | X                   |      |      | /                  |   |   |     |                             |                       |
|                  |                                           |         |    | SI-W107  | X                   |      |      | /                  |   |   |     |                             |                       |
|                  |                                           |         |    | SI-W108  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | SI-W109  | X                   |      |      | /                  |   |   |     |                             |                       |
|                  |                                           |         |    | SI-W110  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                                           |         |    | SI-W111  | X                   |      |      |                    |   |   |     |                             |                       |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description                          | Drawing | IE  | Identity | Examination Methods |            |      | Examination Period |     |     |     | Exemption or Relief Request | Comments |
|----------|------------------------------------------------|---------|-----|----------|---------------------|------------|------|--------------------|-----|-----|-----|-----------------------------|----------|
|          |                                                |         |     |          | Vol.                | Sur.       | Vis. | 1                  | 2   | 3   | EOI |                             |          |
| B4.6     | Branch Pipe Connection Welds Exceeding 6" Dia. | ---     | --- | -----    | Not                 | Applicable |      | ---                | --- | --- | --- | ---                         |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description                       | Drawing | IE | Identity  | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------------------|---------|----|-----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.7     | Branch Pipe Connection Welds 6" and Smaller | M-1146  |    | SI-W42BC  |                     | X    |      |                    |   |   |     |                             |          |
|          |                                             | M-1154  |    | SI-W104BC |                     | X    |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8     | Socket Welds          | M-1144  |    | SI-W10S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W9S   |                     | X    |      | /                  |   |   |     |                             |          |
|          |                       |         |    | SI-W8S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W7S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W5S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W4S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W3S   |                     | X    |      | /                  |   |   |     |                             |          |
|          |                       |         |    | SI-W2S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W1S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       | M-1146  |    | SI-W29S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W31S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W30S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W32S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W33S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W34S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W35S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W36S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | SI-W37S  |                     | X    |      | /                  |   |   |     |                             |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                |
|------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1146  |    | SI-W38S  |                     | X    |      |                    |   |   |     |                             | 1st interval indication |
|                  |                       |         |    | SI-W39S  |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W40S  |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W41S  |                     | X    |      | /                  |   |   |     |                             |                         |
|                  |                       | M-1151  |    | SI-W86S  |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W85S  |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W84S  |                     | X    |      | /                  |   |   |     |                             |                         |
|                  |                       |         |    | SI-W83S  |                     | X    |      | /                  |   |   |     |                             |                         |
|                  |                       |         |    | SI-W82S  |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W81S  |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W80S  |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W79S  |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W78S  |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W77S  |                     | X    |      |                    | / |   |     |                             |                         |
|                  |                       | M-1154  |    | SI-W103S |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W102S |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W101S |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W100S |                     | X    |      |                    |   |   |     |                             |                         |
|                  |                       |         |    | SI-W99S  |                     | X    |      | /                  |   |   |     |                             |                         |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1154  |    | SI-W98S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | SI-W97S  |                     | X    |      |                    | / |   |     |                             |          |
|                  |                       |         |    | SI-W96S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | SI-W95S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | SI-W94S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | SI-W93S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | SI-W92S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | SI-W91S  |                     | X    |      |                    |   |   |     |                             |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-K-1      **Description:** Integral Attachments for Piping

| Item No.                                                                                                             | Component Description                | Drawing | IE      | Identity <sup>1</sup> | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments        |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------|---------|-----------------------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------|
|                                                                                                                      |                                      |         |         |                       | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                 |
| B10.10                                                                                                               | Integrally Welded Piping Attachments | M-1144  |         | RSI-H14               |                     | X    |      |                    |   | / |     | E1-2                        | Lugs 3/4" thick |
|                                                                                                                      |                                      | M-1145  | RSI-H56 |                       | X                   |      |      |                    |   |   |     |                             | Lugs 2" thick   |
|                                                                                                                      |                                      |         | RSI-H57 |                       | X                   |      |      | /                  |   |   |     |                             |                 |
|                                                                                                                      |                                      |         | RSI-H41 |                       | X                   |      |      |                    |   |   |     |                             | E1-2            |
|                                                                                                                      |                                      |         | RSI-H44 |                       | X                   |      |      |                    |   |   |     |                             | E1-2            |
|                                                                                                                      |                                      |         | RSI-H64 |                       | X                   |      |      |                    |   |   |     | E1-2                        |                 |
|                                                                                                                      |                                      | M-1151  |         | RSI-H7                |                     | X    |      |                    | / |   |     |                             | Lugs 3/4" thick |
|                                                                                                                      |                                      | M-1154  | RSI-H33 |                       | X                   |      |      |                    |   |   |     | E1-2                        |                 |
|                                                                                                                      |                                      |         | RSI-H34 |                       | X                   |      |      |                    | / |   |     |                             | Lugs 1" thick   |
|                                                                                                                      |                                      |         | RSI-H77 |                       | X                   |      |      | /                  |   |   |     |                             | Lugs 3/4" thick |
| 1 - The identification numbers correspond to the component supports where the integral piping attachments are found. |                                      |         |         |                       |                     |      |      |                    |   |   |     |                             |                 |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Safety Injection System

**Category:** B-P **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Excess Letdown Heat Exchangers (Tube Side) - CVC System

**Category:** B-B **Description:** Pressure Retaining Welds in Vessels Other Than Reactor Vessels

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Excess Letdown Heat Exchangers (Tube Side) - CVC System

## Full Penetration Nozzle Welds in Vessels

Category: B-D

**Description:** Inspection Program B

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Excess Letdown Heat Exchangers (Tube Side) - CVC System

**Category:** B-F **Description:** Pressure Retaining Dissimilar Metal Welds

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - CVC System

Category: B-F Description: Pressure Retaining Dissimilar Metal Welds

| Item No. | Component Description                                  | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B5.130   | Dissimilar Metal Butt Welds<br>Pipe Size <u>&gt;4"</u> | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B5.140   | Dissimilar Metal Butt Welds<br>Pipe Size <u>&lt;4"</u> | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B5.150   | Dissimilar Metal Socket Welds                          | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Excess Letdown Heat Exchangers (Tube Side) - CVC System

Category: B-G-1 Description: Pressure Retaining Bolting Greater than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B6.120   | Bolts & Studs         | - - - - | -  | - - - -  | Not                 | Applicable | -    | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - CVC System

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description    | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B6.150   | Bolts & Studs            | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B6.160   | Flange Surface           | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B6.170   | Nuts, Bushings & Washers | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Excess Letdown Heat Exchanger (Tube Side) - CVC System

**Category:** B-G-2 **Description:** Pressure Retaining Bolting 2" and Less in Diameter

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System (Seal Injection)

**Category:** B-G-2      **Description:** Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                  |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|---------------------------|
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| B7.50    | Bolts, Studs, Nuts    | M-1149  |    | CVC-F1   |                     |      | VT-1 | /                  |   |   |     |                             | Flange - 8 studs, 16 nuts |
|          |                       |         |    | CVC-F2   |                     |      | VT-1 | /                  |   |   |     | Flange - 4 studs, 8 nuts    |                           |
|          |                       | M-1158  |    | CVC-F3   |                     |      | VT-1 | /                  |   |   |     | Flange - 8 studs, 16 nuts   |                           |
|          |                       |         |    | CVC-F4   |                     |      | VT-1 | /                  |   |   |     | Flange - 4 studs, 8 nuts    |                           |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description                            | Drawing | IE | Identity | Examination Methods |      |       | Examination Period |   |   |       | Exemption or Relief Request | Comments |
|----------|--------------------------------------------------|---------|----|----------|---------------------|------|-------|--------------------|---|---|-------|-----------------------------|----------|
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| B4.5     | Circumferential & Longitudinal Pipe Welds        | - - - - | -  | - - - -  | Not                 | Appl | cable | -                  |   | - | - - - | - - - - -                   |          |
| B4.6     | Branch Pipe Connection Welds Exceeding 6" Dia.   | - - - - | -  | - - - -  | Not                 | Appl | 'able | -                  |   | - | - - - | - - - - -                   |          |
| B4.7     | Branch Pipe Connection Welds 6" Dia. and Smaller | - - - - | -  | - - - -  | Not                 | Appl | 'able | -                  |   | - | - - - | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - CVC System (Charging)

Category: B-J (1974S1975) Description: Pressure Retaining Welds in Piping

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8     | Socket Welds          | M-1156  |    | CVC-W59S |                     | X    |      |                    | / |   |     |                             |          |
|          |                       |         |    | CVC-W60S |                     | X    |      |                    | / |   |     |                             |          |
|          |                       |         |    | CVC-W61S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W62S |                     | X    |      |                    | / |   |     |                             |          |
|          |                       |         |    | CVC-W63S |                     | X    |      |                    | / |   |     |                             |          |
|          |                       |         |    | CVC-W64S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W65S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W66S |                     | X    |      | /                  |   |   |     |                             |          |
|          |                       |         |    | CVC-W67S |                     | X    |      | /                  |   |   |     |                             |          |
|          |                       |         |    | CVC-W68S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W69S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W70S |                     | X    |      | /                  |   |   |     |                             |          |
|          |                       |         |    | CVC-W71S |                     | X    |      | /                  |   |   |     |                             |          |
|          |                       |         |    | CVC-W72S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W73S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W74S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W75S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W76S |                     | X    |      | /                  |   |   |     |                             |          |
|          |                       |         |    | CVC-W77S |                     | X    |      |                    | / |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System (Charging)

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1156  |    | CVC-W78S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W79S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W80S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W81S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W82S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W83S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W84S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W85S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W86S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W87S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W88S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W89S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W90S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W91S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W92S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W93S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W94S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W95S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W96S |                     | X    |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System (Seal Injection)

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1149  |    | CVC-W25S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W26S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W27S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W28S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W29S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W30S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W31S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W32S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W33S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W34S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W35S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W36S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W37S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W38S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W39S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W40S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W41S |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | CVC-W42S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W43S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W44S |                     | X    |      |                    |   |   |     |                             |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System (Seal Injection)

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1149  |    | CVC-W45S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W46S |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | CVC-W47S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W48S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W49S |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | CVC-W50S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W51S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W52S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W53S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W54S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W55S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W56S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W57S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W58S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       | M-1150  |    | CVC-W3S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W2S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W1S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W4S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W5S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W6S  |                     | X    |      | /                  |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System (Seal Injection)

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1150  |    | CVC-W7S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W8S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W9S  |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | CVC-W10S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W11S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W12S |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | CVC-W13S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W14S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W15S |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | CVC-W16S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W17S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W18S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W19S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W20S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W21S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W22S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W23S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W24S |                     | X    |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System (Seal Injection)

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity  | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-----------------------|---------|----|-----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1158  |    | CVC-W97S  |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | CVC-W98S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W100S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W101S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W102S |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | CVC-W103S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W104S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W105S |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | CVC-W106S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W107S |                     | X    |      |                    | / |   |     |                             |          |
|                  |                       |         |    | CVC-W108S |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | CVC-W109S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W110S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W111S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W112S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W113S |                     | X    |      |                    | / |   |     |                             |          |
|                  |                       |         |    | CVC-W114S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W115S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W116S |                     | X    |      |                    | / |   |     |                             |          |
|                  |                       |         |    | CVC-W117S |                     | X    |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System (Seal Injection)

**Category:** B-J (1974S1975) **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity  | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-----------------------|---------|----|-----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1158  |    | CVC-W119S |                     | X    |      |                    | / |   |     |                             |          |
|                  |                       |         |    | CVC-W120S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W121S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W122S |                     | X    |      |                    | / |   |     |                             |          |
|                  |                       |         |    | CVC-W123S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W124S |                     | X    |      |                    | / |   |     |                             |          |
|                  |                       |         |    | CVC-W125S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W126S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W127S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W128S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W129S |                     | X    |      |                    | / |   |     |                             |          |
|                  |                       |         |    | CVC-W130S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W131S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W132S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W133S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W134S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W135S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W136S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W137S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W138S |                     | X    |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System (Seal Injection)

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity  | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-----------------------|---------|----|-----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1158  |    | CVC-W139S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W140S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W141S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W142S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W143S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W144S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W145S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W146S |                     | X    |      |                    |   | / |     |                             |          |
|                  |                       |         |    | CVC-W147S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W148S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W149S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W150S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W151S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W152S |                     | X    |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System (Pressurizer Auxiliary Spray)

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description | Drawing | IE | Identity  | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|-----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8     | Socket Welds          | M-1163  |    | CVC-W153S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W154S |                     | X    |      | /                  |   |   |     |                             |          |
|          |                       |         |    | CVC-W155S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W156S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W157S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W158S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W159S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W160S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W161S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W162S |                     | X    |      | /                  |   |   |     |                             |          |
|          |                       |         |    | CVC-W163S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W164S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W165S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W166S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W167S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W168S |                     | X    |      |                    | / |   |     |                             |          |
|          |                       |         |    | CVC-W169S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W170S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W171S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | CVC-W172S |                     | X    |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System (Pressurizer Auxiliary Spray)

**Category:** B-J (1974S1975)

**Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity  | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-----------------------|---------|----|-----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1163  |    | CVC-W173S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W174S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W175S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W176S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W177S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W178S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | CVC-W179S |                     | X    |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System

**Category:** B-K-1 **Description:** Integrally Welded Attachments

| Item No. | Component Description                   | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |         | Exemption or Relief Request | Comments |
|----------|-----------------------------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|---------|-----------------------------|----------|
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| B10.10   | Integrally Welded Attachments to Piping | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - CVC System

**Category:** B-P **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RC Letdown System

**Category:** B-F      **Description:** Pressure Retaining Dissimilar Metal Welds

| Item No. | Component Description                              | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|----------------------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B5.130   | Dissimilar Metal Butt Welds<br>Pipe Size $\geq$ 4" | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B5.140   | Dissimilar Metal Butt Welds<br>Pipe Size < 4"      | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B5.150   | Dissimilar Metal Socket Welds                      | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RC Letdown System

**Category:** B-G-1      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description    | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                          |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B6.150   | Bolts and Studs          | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B6.160   | Flange Surface           | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B6.170   | Nuts, Bushings & Washers | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - RC Letdown System

Category: B-G-2 Description: Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B7.50    | Bolts, Studs, Nuts    | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RC Letdown System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description                            | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                  |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B4.5     | Circumferential & Longitudinal Welds in Piping   | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B4.6     | Branch Pipe Connection Welds Exceeding 6" Dia.   | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B4.7     | Branch Pipe Connection Welds 6" Dia. and Smaller | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - RC Letdown System

Category: B-J (1974S1975) Description: Pressure Retaining Welds in Piping

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B4.8     | Socket Welds          | M-1157  |    | LD-W1S   |                     | X    |      | /                  |   |   |     |                             |          |
|          |                       |         |    | LD-W2S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | LD-W3S   |                     | X    |      |                    | / |   |     |                             |          |
|          |                       |         |    | LD-W4S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | LD-W5S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | LD-W6S   |                     | X    |      |                    |   | / |     |                             |          |
|          |                       |         |    | LD-W7S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | LD-W8S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | LD-W9S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | LD-W10S  |                     | X    |      |                    |   | / |     |                             |          |
|          |                       |         |    | LD-W11S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | LD-W12S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | LD-W13S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | LD-W14S  |                     | X    |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - RC Letdown System

Category: B-K-1 Description: Integral Attachments to Piping, Pumps, Valves

| Item No. | Component Description                   | Drawing   | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------------------------|-----------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                         |           |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B10.10   | Integrally Welded Attachments to Piping | - - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RC Letdown System

**Category:** B-P **Description:** All Pressure Retaining Components

[illegible]



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RC Drain System

**Category:** B-F **Description:** Pressure Retaining Dissimilar Metal Welds

| Item No. | Component Description                              | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|----------------------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                    |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B5.130   | Dissimilar Metal Butt Welds<br>Pipe Size $\geq$ 4" | ---     | -  | ---      | Not                 | Applicable |      | -                  | - | - | -   | ---                         |          |
| B5.140   | Dissimilar Metal Butt Welds<br>Pipe Size < 4"      | ---     | -  | ---      | Not                 | Applicable |      | -                  | - | - | -   | ---                         |          |
| B5.150   | Dissimilar Metal Socket Welds                      | ---     | -  | ---      | Not                 | Applicable |      | -                  | - | - | -   | ---                         |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - RC Drain S stem

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description    | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                          |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B6.150   | Bolts and Studs          | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B6.160   | Flange Surface           | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B6.170   | Nuts, Bushings & Washers | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - RC Drain S stem

Category: B-G-2 Description: Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B7.50    | Bolts, Studs, Nuts    | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RC Drain System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description                          | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|------------------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B4.5     | Circumferential & Longitudinal Pipe Welds      | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B4.6     | Branch Pipe Connection Welds Exceeding 6" Dia. | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B4.7     | Branch Pipe Connection Welds 6" and Smaller    | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RC Drain System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B4.8     | Socket Welds          | M-1147  |    | WD-W1S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W2S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W3S   |                     | X    |      |                    | / |   |     |                             |          |
|          |                       |         |    | WD-W4S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W5S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W6S   |                     | X    |      |                    |   | / |     |                             |          |
|          |                       |         |    | WD-W7S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W8S   |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W9S   |                     | X    |      |                    |   | / |     |                             |          |
|          |                       |         |    | WD-W10S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W11S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W12S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W13S  |                     | X    |      |                    |   | / |     |                             |          |
|          |                       |         |    | WD-W14S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W15S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W16S  |                     | X    |      |                    |   | / |     |                             |          |
|          |                       |         |    | WD-W17S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W18S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W19S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | WD-W20S  |                     | X    |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RC Drain System

**Category:** B-K-1      **Description:** Integral Attachments to Piping, Pumps, Valves

| Item No. | Component Description                   | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                         |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B10.10   | Integrally Welded Attachments to Piping | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RC Drain System

**Category:** B-P **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - RTD System

Category: B-F Description: Pressure Retaining Dissimilar Metal Welds

| Item No. | Component Description                              | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|----------------------------------------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                    |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B5.130   | Dissimilar Metal Butt Welds<br>Pipe Size $\geq$ 4" | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B5.140   | Dissimilar Metal Butt Welds<br>Pipe Size < 4"      | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B5.150   | Dissimilar Metal Socket Welds                      | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RTD System

**Category:** B-G-1 **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description    | Drawing | IE | Identity | Examination Methods |       |      | Examination Period |   |   |       | Exemption or Relief Request | Comments |
|----------|--------------------------|---------|----|----------|---------------------|-------|------|--------------------|---|---|-------|-----------------------------|----------|
|          |                          |         |    |          | Vol.                | Sur.  | Vis. | 1                  | 2 | 3 | EOI   |                             |          |
| B6.150   | Bolts and Studs          | - - - - | -  | - - - -  | Not                 | Appli | able | -                  |   | - | - - - | - - - - -                   |          |
| B6.160   | Flange Surface           | - - - - | -  | - - - -  | Not                 | Appli | able | -                  |   | - | - - - | - - - - -                   |          |
| B6.170   | Nuts, Bushings & Washers | - - - - | -  | - - - -  | Not                 | Appli | able | -                  |   | - | - - - | - - - - -                   |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RTD System

**Category:** B-G-2 **Description:** Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                  |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|---------------------------|
|          |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                           |
| B7.50    | Bolts, Studs, Nuts    | M-1147  |    | RTD-F1   |                     |      | VT-1 |                    |   |   | /   |                             | Flange - 8 studs, 16 nuts |
|          |                       | M-1155  |    | RTD-F2   |                     |      | VT-1 | /                  |   |   |     |                             | Flange - 8 studs, 16 nuts |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RTD System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |                       |     | Exemption or Relief Request | Comments                 |  |
|----------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|-----------------------|-----|-----------------------------|--------------------------|--|
|          |                                           |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3                     | EOI |                             |                          |  |
| B4.5     | Circumferential & Longitudinal Pipe Welds | M-1147  |    | RTD-W5B  | X                   |      |      |                    |   |                       |     | RR-1-1                      | 1st interval indications |  |
|          |                                           |         |    | RTD-W6B  | X                   |      |      |                    |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W25B | X                   |      |      |                    |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W26  | X                   |      |      |                    |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W27  | X                   |      |      |                    |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W28  | X                   |      |      | /                  |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W29  | X                   |      |      | /                  |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W30  | X                   |      |      | /                  |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W31  | X                   |      |      |                    |   |                       |     |                             |                          |  |
|          |                                           | M-1148  |    | RTD-W55B | X                   |      |      |                    |   |                       |     |                             |                          |  |
|          |                                           | M-1155  |    | RTD-W60B | X                   |      |      |                    |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W61B | X                   |      |      |                    |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W78B | X                   |      |      | /                  |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W79  | X                   |      |      | /                  |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W80  | X                   |      |      |                    |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W81  | X                   |      |      | /                  |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W82  | X                   |      |      |                    |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W83  | X                   |      |      | /                  |   |                       |     |                             |                          |  |
|          |                                           |         |    | RTD-W84  | +                   | +    |      |                    |   |                       |     |                             |                          |  |
|          |                                           |         |    |          |                     |      |      |                    |   | Inaccessible/geometry |     |                             |                          |  |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RTD System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                |
|------------------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------|
|                  |                                           |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                         |
| B4.5<br>(Cont'd) | Circumferential & Longitudinal Pipe Welds | M-1155  |    | RTD-W107 | X                   |      |      |                    |   |   |     |                             | 1st interval indication |
|                  |                                           |         |    | RTD-W106 | X                   |      |      | /                  |   |   |     |                             |                         |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RTD System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description                                  | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                        |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B4.6     | Branch Pipe<br>Connection Welds<br>Exceeding 6" Dia.   | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B4.7     | Branch Pipe<br>Connection Welds<br>6" Dia. and Smaller | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - RTD System

Category: B-J (1974S1975) Description: Pressure Retaining Welds in Piping

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B4.8     | Socket Welds          | M-1147  |    | RTD-W2S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W3S  |                     | X    |      |                    |   | / |     |                             |          |
|          |                       |         |    | RTD-W1S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W4S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W7S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W8S  |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W9S  |                     | X    |      |                    |   | / |     |                             |          |
|          |                       |         |    | RTD-W10S |                     | X    |      |                    |   | / |     |                             |          |
|          |                       |         |    | RTD-W11S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W12S |                     | X    |      |                    |   | / |     |                             |          |
|          |                       |         |    | RTD-W13S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W14S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W15S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W16S |                     | X    |      | /                  |   |   |     |                             |          |
|          |                       |         |    | RTD-W17S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W18S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W19S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W20S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W21S |                     | X    |      |                    |   |   |     |                             |          |
|          |                       |         |    | RTD-W22S |                     | X    |      | /                  |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RTD System

**Category:** B-J (1974S1975) **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |  |
|------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|--|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1147  |    | RTD-W23S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W24S |                     | X    |      | /                  |   |   |     |                             |          |  |
|                  |                       | M-1148  |    | RTD-W32S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W33S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W34S |                     | X    |      | /                  |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W35S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W36S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W37S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W38S |                     | X    |      | /                  |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W40S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W41S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W42S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W43S |                     | X    |      |                    | / |   |     |                             |          |  |
|                  |                       |         |    | RTD-W44S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W45S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W46S |                     | X    |      |                    | / |   |     |                             |          |  |
|                  |                       |         |    | RTD-W47S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W48S |                     | X    |      |                    |   |   |     |                             |          |  |
|                  |                       |         |    | RTD-W49S |                     | X    |      |                    |   |   |     |                             |          |  |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RTD System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1148  |    | RTD-W50S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W51S |                     | X    |      |                    | / |   |     |                             |          |
|                  |                       |         |    | RTD-W52S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W53S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W54S |                     | X    |      |                    | / |   |     |                             |          |
|                  |                       | M-1155  |    | RTD-W58S |                     | X    |      |                    |   |   | /   |                             |          |
|                  |                       |         |    | RTD-W59S |                     | X    |      |                    |   |   | /   |                             |          |
|                  |                       |         |    | RTD-W62S |                     | X    |      |                    |   |   | /   |                             |          |
|                  |                       |         |    | RTD-W63S |                     | X    |      |                    |   |   | /   |                             |          |
|                  |                       |         |    | RTD-W64S |                     | X    |      |                    |   |   | /   |                             |          |
|                  |                       |         |    | RTD-W65S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W66S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W67S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W68S |                     | X    |      |                    |   |   | /   |                             |          |
|                  |                       |         |    | RTD-W69S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W70S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W71S |                     | X    |      |                    |   |   | /   |                             |          |
|                  |                       |         |    | RTD-W72S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W73S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W74S |                     | X    |      |                    |   | / |     |                             |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RTD System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity  | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-----------------------|---------|----|-----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1155  |    | RTD-W75S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W76S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W77S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W105S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W104S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W103S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W102S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W101S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W100S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W99S  |                     | X    |      |                    | / |   |     |                             |          |
|                  |                       |         |    | RTD-W98S  |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | RTD-W97S  |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | RTD-W96S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W95S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W94S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W93S  |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | RTD-W92S  |                     | X    |      | /                  |   |   |     |                             |          |
|                  |                       |         |    | RTD-W91S  |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W90S  |                     | X    |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RTD System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.8<br>(Cont'd) | Socket Welds          | M-1155  |    | RTD-W89S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W88S |                     | X    |      |                    | / |   |     |                             |          |
|                  |                       |         |    | RTD-W87S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W86S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W85S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W56S |                     | X    |      |                    |   |   |     |                             |          |
|                  |                       |         |    | RTD-W57S |                     | X    |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RTD System

**Category:** B-K-1      **Description:** Integral Attachments to Piping, Pumps, Valves

| Item No. | Component Description                   | Drawing | IE  | Identity | Examination Methods |            |      | Examination Period |     |     |     | Exemption or Relief Request | Comments |
|----------|-----------------------------------------|---------|-----|----------|---------------------|------------|------|--------------------|-----|-----|-----|-----------------------------|----------|
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| B10.10   | Integrally Welded Attachments to Piping | -----   | --- | -----    | Not                 | Applicable |      | ---                | --- | --- | --- | -----                       |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - RTD System

**Category:** B-P **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Pressurizer Spray & Pressurizer Safety System

**Category:** B-F      **Description:** Pressure Retaining Dissimilar Metal Welds

| Item No. | Component Description                              | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |         | Exemption or Relief Request | Comments |
|----------|----------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|---------|-----------------------------|----------|
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| B5.130   | Dissimilar Metal Butt Welds<br>Pipe Size $\geq 4"$ | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |
| B5.140   | Dissimilar Metal Butt Welds<br>Pipe Size $< 4"$    | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |
| B5.150   | Dissimilar Metal Socket Welds                      | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Pressurizer Spray & Pressurizer Safety System

**Category:** B-G-1 **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description    | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments  |  |
|----------|--------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|-----------|--|
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| B6.150   | Bolts and Studs          | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | -                           | - - - - - |  |
| B6.160   | Flange Surface           | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | -                           | - - - - - |  |
| B6.170   | Nuts, Bushings & Washers | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | -                           | - - - - - |  |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Pressurizer Spray & Pressurizer Safety System

**Category:** B-G-2      **Description:** Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                   |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------------------------|
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| B7.50    | Bolts, Studs, Nuts    | M-1160  |    | PR-F1    |                     |      | VT-1 |                    | / |   |     |                             | Flange - 12 studs, 24 nuts |
|          |                       |         |    | PR-F1    |                     |      | VT-1 |                    |   | / |     |                             | Flange - 12 studs, 24 nuts |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Pressurizer Spray & Pressurizer Safety System

**Category:** B-J (1974S1975)

**Description:** Pressue Retaining Welds in Piping

| Item No. | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments              |
|----------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------|
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| B4.5     | Circumferential & Longitudinal Pipe Welds | M-1161  |    | PS-W30   | X                   |      | V    |                    |   |   |     |                             | Inaccessible/geometry |
|          |                                           |         |    | PS-W31   | X                   |      | V    |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W32   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W33   | +                   | +    |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W34   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W35   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W36   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W37   | X                   |      |      |                    |   | / |     |                             |                       |
|          |                                           |         |    | PS-W38   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W39   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W40   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W41   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W42   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W43   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W44   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W45   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W46   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W47   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W48   | X                   |      |      |                    |   |   |     |                             |                       |
|          |                                           |         |    | PS-W49   | X                   |      |      |                    |   |   |     |                             |                       |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Pressurizer Spray & Pressurizer Safety System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.5<br>(Cont'd) | Circumferential & Longitudinal Pipe Welds | M-1161  |    | PS-W50   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W51   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W52   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W53   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W54   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W55   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W56   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W57   | X                   |      |      |                    | / |   |     |                             |          |
|                  |                                           |         |    | PS-W58   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W59   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W60   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           | M-1162  |    | PS-W1    | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W2    | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W3    | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W4    | +                   | +    |      |                    |   |   |     | Inaccessible/geometry       |          |
|                  |                                           |         |    | PS-W5    | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W6    | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W7    | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W8    | +                   | +    |      |                    |   |   |     | Inaccessible/supports       |          |
|                  |                                           |         |    | PS-W9    | X                   |      |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Pressurizer Spray & Pressurizer Safety System

**Category:** B-J (1974S1975)

**Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| B4.5<br>(Cont'd) | Circumferential & Longitudinal Pipe Welds | M-1162  |    | PS-W10   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W11   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W12   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W13   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W14   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W15   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W16   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W17   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W18   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W19   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W20   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W21   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W22   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W23   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W24   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W25   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W26   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W27   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W28   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                           |         |    | PS-W29   | X                   |      |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Pressurizer Spray & Pressurizer Safety System

**Category:** B-J (1974S1975)

**Description:** Pressure Retaining Welds in Piping

| Item No.         | Component Description                     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                                                   |
|------------------|-------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| B4.5<br>(Cont'd) | Circumferential & Longitudinal Pipe Welds | M-1160  |    | PR-W17   | X                   |      |      |                    |   |   |     |                             | Inaccessible/geometry<br>1st interval indication<br><br>Inaccessible/geometry<br>Inaccessible/geometry<br><br>Inaccessible/geometry<br><br>Inaccessible/geometry<br><br>Inaccessible/geometry<br><br>Inaccessible/geometry |
|                  |                                           |         |    | PR-W18   | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W19   | +                   | +    |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W20   | X                   |      |      | /                  |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W21   | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W22   | +                   | +    |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W23   | +                   | +    |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W24   | X                   |      |      |                    |   | / |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W25   | X                   |      |      |                    | / |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W27   | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W28   | X                   |      |      |                    |   |   | /   |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W29   | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W30   | +                   | +    |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W31   | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W32   | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W33   | +                   | +    |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W34   | +                   | +    |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W35   | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |
|                  |                                           |         |    | PR-W36   | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                                                                            |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Piping - Pressurizer Spray & Pressurizer Safety System

Category: B-J (1974S1975)

Description: Pressure Retaining Welds in Piping

| Item No. | Component Description                          | Drawing | IE | Identity | Examination Methods |       |      | Examination Period |   |   |       | Exemption or Relief Request | Comments |
|----------|------------------------------------------------|---------|----|----------|---------------------|-------|------|--------------------|---|---|-------|-----------------------------|----------|
|          |                                                |         |    |          | Vol.                | Sur.  | Vis. | 1                  | 2 | 3 | EOI   |                             |          |
| B4.6     | Branch Pipe Connection Welds Exceeding 6" Dia. | - - - - | -  | - - - -  | Not                 | Appli | able | -                  |   | - | - - - | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Pressurizer Spray & Pressurizer Safety System

**Category:** B-J (1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description                       | Drawing | IE  | Identity | Examination Methods |            |      | Examination Period |     |     |     | Exemption or Relief Request | Comments |
|----------|---------------------------------------------|---------|-----|----------|---------------------|------------|------|--------------------|-----|-----|-----|-----------------------------|----------|
|          |                                             |         |     |          | Vol.                | Sur.       | Vis. | 1                  | 2   | 3   | EOI |                             |          |
| B4.7     | Branch Pipe Connection Welds 6" and Smaller | M-1162  |     | PS-W27BC |                     | X          |      |                    |     | /   |     |                             |          |
| B4.8     | Socket Welds                                | -----   | --- | -----    | Not                 | Applicable |      | ---                | --- | --- | --- | ---                         |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Pressurizer Spray & Pressurizer Safety System

**Category:** B-K-1 **Description:** Integral Attachments to Piping

| Item No.                                                                                                                    | Component Description                | Drawing | IE | Identity <sup>1</sup>                           | Examination Methods |                       |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------|----|-------------------------------------------------|---------------------|-----------------------|------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------------------------------------|
|                                                                                                                             |                                      |         |    |                                                 | Vol.                | Sur.                  | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                   |
| B10.10                                                                                                                      | Integrally Welded Piping Attachments | M-1162  |    | RC-H23<br>RC-H24<br>RC-H27<br>RC-H29A<br>RC-H35 |                     | X<br>X<br>X<br>X<br>X |      | /                  |   |   |     | El-2                        | Lugs 3/4" thick<br>Lugs 3-3/16" thick<br>Lugs 1-1/4" thick<br><br>Lugs 3/4" thick |
| <p>1 - The identification numbers correspond to the component supports where the integral piping attachments are found.</p> |                                      |         |    |                                                 |                     |                       |      |                    |   |   |     |                             |                                                                                   |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Piping - Pressurizer Spray & Pressurizer Safety System

**Category:** B-P **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Valves

Category: B-G-1 Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description    | Drawing   | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------|-----------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                          |           |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B6.210   | Bolts and Studs          | - - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B6.220   | Flange Surface           | - - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| B6.230   | Nuts, Bushings & Washers | - - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Valves

Category: B-G-2 Description: Pressure Retaining Bolting 2" Diameter and Less

| Item No. | Component Description | Drawing | IE | Identity       | Examination Methods |      |      | Examination Period 1 |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                                                                                    |
|----------|-----------------------|---------|----|----------------|---------------------|------|------|----------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                       |         |    |                | Vol.                | Sur. | Vis. | 1                    | 2 | 3 | EOI |                             |                                                                                                                                                                                                                                                             |
| B7.70    | Bolts, Studs, Nuts    | M-1144  |    | SI-13A(12S&N)  |                     |      | VT-1 | /                    |   |   |     |                             | Bolting may be examined:<br>- in place under tension.<br>- when the connection is disassembled.<br>- when the bolting is removed.<br><br>Legend:<br>S&N = studs and nuts<br><br>Other Class 1 valves not listed do not contain bolted pressure connections. |
|          |                       | M-1145  |    | SI-22A(16S&N)  |                     |      | VT-1 |                      | / |   |     |                             |                                                                                                                                                                                                                                                             |
|          |                       |         |    | SI-21A(16S&N)  |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
|          |                       |         |    | RHR-1A(16S&N)  |                     |      | VT-1 | /                    |   |   |     |                             |                                                                                                                                                                                                                                                             |
|          |                       |         |    | RHR-2A(16S&N)  |                     |      | VT-1 |                      | / |   |     |                             |                                                                                                                                                                                                                                                             |
|          |                       | M-1146  |    | SI-303B(12S&N) |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
|          |                       |         |    | SI-304B(12S&N) |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
|          |                       | M-1147  |    | RC-103A(12S&N) |                     |      | VT-1 |                      | / |   |     |                             |                                                                                                                                                                                                                                                             |
|          |                       | M-1151  |    | SI-13B(12S&N)  |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
|          |                       | M-1152  |    | RHR-11(16S&N)  |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
|          |                       |         |    | SI-21B(16S&N)  |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
|          |                       |         |    | SI-22B(16S&N)  |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
|          |                       | M-1153  |    | RHR-2B(16S&N)  |                     |      | VT-1 | /                    |   |   |     |                             |                                                                                                                                                                                                                                                             |
|          |                       |         |    | RHR-1B(16S&N)  |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
|          |                       | M-1154  |    | SI-303A(12S&N) |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
|          |                       |         |    | SI-304A(12S&N) |                     |      | VT-1 | /                    |   |   |     |                             |                                                                                                                                                                                                                                                             |
|          |                       | M-1155  |    | RC-103B(12S&N) |                     |      | VT-1 |                      | / |   |     |                             |                                                                                                                                                                                                                                                             |

1 - Time of examination should coincide with B12.50.

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Valves

**Category:** B-G-2 **Description:** Pressure Retaining Bolting 2"Diameter and Less

| Item No.                                             | Component Description | Drawing | IE | Identity     | Examination Methods |      |      | Examination Period 1 |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                                                                                    |
|------------------------------------------------------|-----------------------|---------|----|--------------|---------------------|------|------|----------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                      |                       |         |    |              | Vol.                | Sur. | Vis. | 1                    | 2 | 3 | EOI |                             |                                                                                                                                                                                                                                                             |
| B7.70<br>(Cont'd)                                    | Bolts, Studs, Nuts    | M-1156  |    | CVC-11(8S&N) |                     |      | VT-1 | /                    |   |   |     |                             | Bolting may be examined:<br>- in place under tension.<br>- when the connection is disassembled.<br>- when the bolting is removed.<br><br>Legend:<br>S&N = studs and nuts<br><br>Other Class 1 valves not listed do not contain bolted pressure connections. |
|                                                      |                       | M-1157  |    | LD-2(8S&N)   |                     |      | VT-1 |                      | / |   |     |                             |                                                                                                                                                                                                                                                             |
|                                                      |                       |         |    | LD-3(8S&N)   |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
|                                                      |                       | M-1159  |    | PR-1A(12S&N) |                     |      | VT-1 | /                    |   |   |     |                             |                                                                                                                                                                                                                                                             |
|                                                      |                       |         |    | PR-2A(8S&N)  |                     |      | VT-1 |                      | / |   |     |                             |                                                                                                                                                                                                                                                             |
|                                                      |                       |         |    | PR-1B(12S&N) |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
|                                                      |                       |         |    | PR-2B(8S&N)  |                     |      | VT-1 | /                    |   |   |     |                             |                                                                                                                                                                                                                                                             |
|                                                      |                       | M-1160  |    | PR-3A(8S&N)  |                     |      | VT-1 |                      | / |   |     |                             |                                                                                                                                                                                                                                                             |
|                                                      |                       |         |    | PR-3B(8S&N)  |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
|                                                      |                       | M-1161  |    | PS-1B(8S&N)  |                     |      | VT-1 | /                    |   |   |     |                             |                                                                                                                                                                                                                                                             |
|                                                      |                       | M-1162  |    | PS-1A(8S&N)  |                     |      | VT-1 |                      | / |   |     |                             |                                                                                                                                                                                                                                                             |
|                                                      |                       | M-1163  |    | CVC-15(8S&N) |                     |      | VT-1 |                      |   | / |     |                             |                                                                                                                                                                                                                                                             |
| 1 - Time of examination should coincide with B12.50. |                       |         |    |              |                     |      |      |                      |   |   |     |                             |                                                                                                                                                                                                                                                             |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Valves

Category: B-K-1 Description: Integral Attachments for Piping, Pumps, Valves

| Item No. | Component Description                | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                      |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B10.30   | Valves Integrally Welded Attachments | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Valves

Category: B-M-1 Description: Pressure Retaining Welds in Valve Bodies

| Item No. | Component Description             | Drawing | IE  | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------------------|---------|-----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                   |         |     |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| B12.30   | Valve Body Welds<br>Pipe Size <4" | - - - - | - - | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| B12.40   | Valve Body Welds<br>Pipe Size ≥4" | - - - - | - - | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 1 - Valves

Category: B-M-2 Description: Valve Bodies

| Item No. | Component Description          | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                            |
|----------|--------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------------------------------------------------------------------------------------|
|          |                                |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                     |
| B12.50   | Valve Bodies<br>Pipe Size > 4" | M-1144  |    | SI-13A   |                     |      | VT-3 |                    |   |   |     |                             | These examinations can be performed concurrently with the VT-1 examination of bolting (item B7.70). |
|          |                                | M-1145  |    | SI-22A   |                     |      | VT-3 |                    |   |   |     |                             |                                                                                                     |
|          |                                |         |    | SI-21A   |                     |      | VT-3 |                    |   |   |     |                             |                                                                                                     |
|          |                                |         |    | RHR-1A   |                     |      | VT-3 |                    |   |   |     |                             |                                                                                                     |
|          |                                |         |    | RHR-2A   |                     |      | VT-3 |                    |   |   |     |                             |                                                                                                     |
|          |                                | M-1146  |    | SI-303B  |                     |      | VT-3 |                    |   |   |     |                             |                                                                                                     |
|          |                                |         |    | SI-304B  |                     |      | VT-3 |                    |   |   | /   |                             |                                                                                                     |
|          |                                | M-1151  |    | SI-13B   |                     |      | VT-3 |                    |   |   | /   |                             |                                                                                                     |
|          |                                | M-1152  |    | RHR-11   |                     |      | VT-3 |                    |   |   | /   |                             |                                                                                                     |
|          |                                |         |    | SI-21B   |                     |      | VT-3 |                    |   |   | /   |                             |                                                                                                     |
|          |                                |         |    | SI-22B   |                     |      | VT-3 |                    |   |   |     |                             |                                                                                                     |
|          |                                | M-1153  |    | RHR-2B   |                     |      | VT-3 |                    |   |   |     |                             |                                                                                                     |
|          |                                |         |    | RHR-1B   |                     |      | VT-3 |                    |   |   | /   |                             |                                                                                                     |
|          |                                | M-1154  |    | SI-303A  |                     |      | VT-3 |                    |   |   | /   |                             |                                                                                                     |
|          |                                |         |    | SI-304A  |                     |      |      |                    |   |   |     |                             |                                                                                                     |
|          |                                | M-1160  |    | PR-3A    |                     |      | VT-3 |                    |   |   |     |                             |                                                                                                     |
|          |                                |         |    | PR-3B    |                     |      | VT-3 |                    |   |   | /   |                             |                                                                                                     |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 - Valves

**Category:** B-P **Description:** All Pressure Retaining Components

[illegible]

CLASS 2  
PRESSURE RETAINING WELDS IN PIPING

10CFR50 allows the option of using the 1974S1975 Section XI for Class 2 pipe weld selection, examination, and exemptions as stated in the following excerpt from 10CFR50.55a(b)(2)(iv)(B):

"The extent of examination for Code Class 2 pipe welds may be determined by the requirements of paragraph IWC-1220, Table IWC-2520 Category C-F and C-G and paragraph IWC-2411 in the 1974 Edition and Addenda through the Summer 1975 Addenda of Section XI of the ASME Code..."

This option has been used in the development of this second 10-year ISI plan.

Although the 1974S1975 Code sections are being used per the above, the data sheets for Class 2 pressure retaining welds in piping are all listed under Category C-F. However, in parentheses, the category (C-F or C-G) will be indicated which would correspond to the respective 1974S1975 category. This has been done to help locate piping welds when using the 1980 Code and to avoid confusion between Category C-G of the 1974S1975 Code (piping circulating other than reactor coolant) and Category C-G of the 1980W1981 Code (pressure retaining welds in pumps and valves).

Item numbers for pressure retaining welds in piping are those of the 1974S1975 Code.

Each of the data sheets has a space to insert comments. The following is a description of the meaning of some of the comments found on these sheets:

- Inaccessible/whip restraints - Note that these welds have not been selected for examination. However, the comments are noted to aid in the selection of future welds, if necessary, such that these will not be selected for examination.

- First interval indication - These welds have been rescheduled because they exhibited indications during the first interval. They will be monitored to determine if the indications worsen or other actions should be taken.
- Inaccessible/geometry - There are cases where a weld and heat affected zone is only partially accessible to the volumetric examination required by the Code. Where this occurs, a surface examination will be used to supplement the limited volumetric examination. This will also be indicated by a '+' in the volumetric and surface examination method columns instead of the usual 'X' in the volumetric examination column for pipe welds.
- '\*' and '\*\*' - Certain pipe welds are marked inaccessible in the comments column of the examination sheets of this second 10-year interval plan. The inaccessibility of these welds was determined from the first 10-year plan, the Kewaunee Technical Specifications, or both. For welds where the inaccessibility was determined from the first 10-year plan only, a single asterisk (\*) was placed in the comments column. For welds where the inaccessibility was determined from the Technical Specification, a double asterisk (\*\*) was used.



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Feedwater

Category: C-A Description: Pressure Retaining Welds in Pressure Vessels

| Item No. | Component Description       | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                             |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C1.10    | Shell Circumferential Welds | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C1.20    | Head Circumferential Welds  | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C1.30    | Tubesheet to Shell Welds    | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Feedwater

**Category:** C-B      **Description:** Pressure Retaining Nozzle Welds in Vessels

| Item No. | Component Description                                                | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|----------------------------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                                      |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C2.10    | Nozzles in Vessels<br>≤1/2" Nominal Thickness                        | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C2.11    | Nozzle to Shell (or Head) Weld                                       | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C2.20    | Nozzles Without Reinforcing Plate in Vessels >1/2" Nominal Thickness | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C2.21    | Nozzle to Shell (or Head) Weld                                       | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C2.22    | Nozzle Inside Radius Section                                         | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C2.30    | Nozzles With Reinforcing Plate in Vessels >1/2" Nominal Thickness    | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C2.31    | Reinforcing Plate Welds to Nozzle & Vessel                           | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C2.32    | Nozzle to Shell (or Head) Welds Inside of Vessel Accessible          | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Feedwater

**Category:** C-C      **Description:** Integral Attachments for Vessels, Piping, Pumps, Valves

| Item No. | Component Description                          | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|------------------------------------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C3.10    | Pressure Vessels Integrally Welded Attachments | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C3.20    | Piping Integrally Welded Attachments           | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C3.30    | Pumps Integrally Welded Attachments            | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C3.40    | Valves Integrally Welded Attachments           | - - - - | -  | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Feedwater

Category: C-D Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description               | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |         | Exemption or Relief Request | Comments |
|----------|-------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|---------|-----------------------------|----------|
|          |                                     |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI     |                             |          |
| C4.10    | Pressure Vessels<br>Bolts and Studs | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |
| C4.20    | Piping<br>Bolts and Studs           | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |
| C4.30    | Pumps<br>Bolts and Studs            | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |
| C4.40    | Valves<br>Bolts and Studs           | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Feedwater

**Category:** C-F (G-G, 1974S1975)

**Description:** Pressure Retaining Welds in Piping  
(Does Not Circulate Reactor Coolant)

| Item No. | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                 |
|----------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| C2.1     | Circumferential Butt Welds | M-1166  |    | FW-W1    | X                   |      |      | /                  |   |   |     |                             | Inaccessible/whip restraints<br><br>Inaccessible/whip restraints<br><br>Inaccessible/whip restraints<br><br><br><br><br><br><br><br><br><br>Inaccessible/whip restraints |
|          |                            |         |    | FW-W2    | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-W3    | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-W4    | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-W5    | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-W6    | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-W7P   |                     |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-W8    |                     |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-W9P   |                     |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-W10   | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-W11   | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-W12   | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-W13   |                     |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-W14   | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                          |
|          |                            |         |    | FW-F15   | X                   |      |      | /                  |   |   |     |                             |                                                                                                                                                                          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Feedwater

**Category:** C-F (C-G, 1974S1975) **Description:** Pressure Retaining Welds in Piping  
(Does Not Circulate Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                     |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|------------------------------|
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| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1166  |    | FW-W17   | X                   |      |      |                    |   |   |     |                             | Inaccessible/geometry        |
|                  |                            |         |    | FW-W16   | X                   |      |      |                    |   |   |     |                             |                              |
|                  |                            |         |    | FW-W18   | X                   |      |      |                    |   |   |     |                             |                              |
|                  |                            |         |    | FW-W19   | +                   | +    |      |                    |   |   |     |                             |                              |
|                  |                            |         |    | FW-W20   | X                   |      |      |                    |   |   |     |                             |                              |
|                  |                            |         |    | FW-W21   | X                   |      |      |                    |   |   |     |                             |                              |
|                  |                            |         |    | FW-W22   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints |
|                  |                            |         |    | FW-W23   | X                   |      |      |                    |   |   |     |                             |                              |
|                  |                            |         |    | FW-W24   | X                   |      |      |                    |   |   |     |                             |                              |
|                  |                            |         |    | FW-W25   | X                   |      |      |                    |   |   |     |                             |                              |
|                  |                            |         |    | FW-W26   | X                   |      |      |                    |   |   |     |                             |                              |
|                  |                            |         |    | FW-W28   | X                   |      |      |                    |   | / |     |                             | 1st interval indication      |
|                  |                            |         |    | FW-W29   | X                   |      |      |                    |   | / |     |                             | 1st interval indication      |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Feedwater

**Category:** C-F (C-G, 1974S1975)

**Description:** Pressure Retaining Welds in Piping  
(Does Not Circulate Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                      |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------|
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| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1168  |    | FW-W30   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints  |
|                  |                            |         |    | FW-W31   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints  |
|                  |                            |         |    | FW-W32   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints  |
|                  |                            |         |    | FW-W33   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints  |
|                  |                            |         |    | FW-W34   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints  |
|                  |                            |         |    | FW-W35   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints  |
|                  |                            |         |    | FW-W36   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints* |
|                  |                            |         |    | FW-W37P  |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints* |
|                  |                            |         |    | FW-W38   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints* |
|                  |                            |         |    | FW-W39P  |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints* |
|                  |                            |         |    | FW-W40   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | FW-W41   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints  |
|                  |                            |         |    | FW-W42   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints  |
|                  |                            |         |    | FW-W43   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints* |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Feedwater

Pressure Retaining Welds in Piping

**Category:** C-F (C-G, 1974S1975)

**Description:** (Does Not Circulate Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                      |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------|
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| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1168  |    | FW-W44   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints. |
|                  |                            |         |    | FW-W45   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints  |
|                  |                            |         |    | FW-W46   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints  |
|                  |                            |         |    | FW-W47   |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints  |
|                  |                            |         |    | FW-W48   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | FW-W49   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | FW-W50   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | FW-W51   | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry         |
|                  |                            |         |    | FW-W52   | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry**       |
|                  |                            |         |    | FW-W53   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | FW-W54   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | FW-W56   | X                   |      |      |                    | / |   |     |                             | 1st interval indication       |
|                  |                            |         |    | FW-W57   | X                   |      |      |                    | / |   |     |                             | 1st interval indication       |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Feedwater

**Category:** C-F (C-G, 1974S1975) **Description:** Pressure Retaining Welds in Piping  
(Does Not Circulate Reactor Coolant)

| Item No. | Component Description           | Drawing | IE    | Identity | Examination Methods |      |      | Examination Period |       |       |       | Exemption or Relief Request | Comments |
|----------|---------------------------------|---------|-------|----------|---------------------|------|------|--------------------|-------|-------|-------|-----------------------------|----------|
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| C2.2     | Longitudinal Joints in Fittings | -----   | ----- | -----    | Not Applicable      |      |      | -----              | ----- | ----- | ----- | -----                       |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Feedwater

Pressure Retaining Welds in Piping

**Category:** C-F (C-G, 1974S1975)

**Description:** (Does Not Circulate Reactor Coolant)

| Item No. | Component Description           | Drawing | IE | Identity             | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------|---------|----|----------------------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C2.3     | Branch Pipe to Pipe Weld Joints | M-1166  |    | FW-W27BC<br>FW-W55BC | X<br>X              |      |      | /                  |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Feedwater

Category: C-G Description: Pressure Retaining Welds in Pumps and Valves

| Item No. | Component Description | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |         | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|---------|-----------------------------|----------|
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| C6.10    | Pump Casing Welds     | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |
| C6.20    | Valve Body Welds      | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Feedwater

**Category:** C-H **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - RHR Heat Exchangers (Tube Side) - Auxiliary Coolant System

**Category:** C-A **Description:** Pressure Retaining Welds in Pressure Vessels

| Item No.                                           | Component Description       | Drawing | IE  | Identity | Examination Methods |      |      | Examination Period |       |       |           | Exemption or Relief Request | Comments          |
|----------------------------------------------------|-----------------------------|---------|-----|----------|---------------------|------|------|--------------------|-------|-------|-----------|-----------------------------|-------------------|
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| C1.10                                              | Shell Circumferential Welds | M-1207  |     | AHRS1-W1 | X                   |      |      | /1                 | /2    |       |           |                             | Heat Exchanger 1A |
|                                                    |                             |         |     | AHRS2-W5 | X                   |      |      |                    | /     |       |           |                             | Heat Exchanger 1B |
| C1.20                                              | Head Circumferential Welds  | M-1207  |     | AHRS2-W6 | X                   |      |      | /1                 | /2    |       |           |                             | Heat Exchanger 1B |
|                                                    |                             |         |     | AHRS1-W2 | X                   |      |      |                    | /     |       |           |                             | Heat Exchanger 1A |
| C1.30                                              | Tubesheet to Shell          | - - - - | - - | - - - -  | Not Applicable      |      |      | - - -              | - - - | - - - | - - - - - |                             |                   |
| 1 - Examine 90° on both sides of tube side outlet. |                             |         |     |          |                     |      |      |                    |       |       |           |                             |                   |
| 2 - Examine 90° on both sides of tube side inlet.  |                             |         |     |          |                     |      |      |                    |       |       |           |                             |                   |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Excess Letdown Heat Exchanger (Shell Side) - Aux Coolant System

**Category:** C-A **Description:** Pressure Retaining Welds in Pressure Vessels

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - RHR Heat Exchangers (Tube Side) - Aux Coolant System

**Category:** C-B

**Description:** Pressure Retaining Nozzle Welds in Vessels

| Item No. | Component Description                                                         | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments          |
|----------|-------------------------------------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|-------------------|
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| C2.10    | Nozzles in Vessels<br>≤ 1/2" Thick                                            |         |     |           |                     |            |      |                    |   |   |     |                             |                   |
| C2.11    | Nozzles to Head Weld                                                          | M-1207  |     | AHRS1-W4  |                     | X          |      |                    |   |   |     | RR-2-2                      | Heat exchanger 1A |
|          |                                                                               |         |     | AHRS1-W3  |                     | X          |      |                    |   |   |     | RR-2-2                      | Heat exchanger 1A |
|          |                                                                               |         |     | AHRS2-W8  |                     | X          |      |                    |   |   |     | RR-2-2                      | Heat exchanger 1B |
|          |                                                                               |         |     | AHRS2-W7  |                     | X          |      |                    |   |   |     | RR-2-2                      | Heat exchanger 1B |
| C2.20    | Nozzles Without<br>Reinforcing Plate in<br>Vessels >1/2"<br>Nominal Thickness | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                   |
| C2.21    | Nozzle to Shell (or<br>Head) Weld                                             | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                   |
| C2.22    | Nozzle Inside Radius<br>Section                                               | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                   |
| C2.30    | Nozzles With<br>Reinforcing Plate in<br>Vessels >1/2"<br>Nominal Thickness    | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                   |
| C2.31    | Reinforcing Plate<br>Welds to Nozzle &<br>Vessel                              | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                   |
| C2.32    | Nozzle to Sheel (or<br>Head) Welds Inside<br>of Vessel<br>Accessible          | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                   |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Excess Letdown Heat Exchanger (Shell Side) - Aux Coolant System

**Category:** C-B **Description:** Pressure Retaining Nozzle Welds in Vessels

[illegible]



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - RHR Heat Exchangers (Tube Side) - Aux Coolant System

**Category:** C-C **Description:** Integral Attachments for Pressure Vessels

| Item No.                                                 | Component Description         | Drawing | IE | Identity  | Examination Methods |      |      | Examination Period |    |   |     | Exemption or Relief Request | Comments          |
|----------------------------------------------------------|-------------------------------|---------|----|-----------|---------------------|------|------|--------------------|----|---|-----|-----------------------------|-------------------|
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| C3.10                                                    | Integrally Welded Attachments | M-1207  |    | AHRS1-SW1 |                     | X    |      | /1                 | /2 |   |     |                             | Heat exchanger 1A |
|                                                          |                               |         |    | AHRS1-SW2 |                     | X    |      |                    |    |   |     | Heat exchanger 1A           |                   |
|                                                          |                               |         |    | AHRS2-SW3 |                     | X    |      |                    |    |   |     | Heat exchanger 1B           |                   |
|                                                          |                               |         |    | AHRS2-SW4 |                     | X    |      |                    | /  |   |     | Heat exchanger 1B           |                   |
| 1 - Examine the half of the support of tube inlet side.  |                               |         |    |           |                     |      |      |                    |    |   |     |                             |                   |
| 2 - Examine the half of the support of tube outlet side. |                               |         |    |           |                     |      |      |                    |    |   |     |                             |                   |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Excess Letdown Heat Exchanger (Shell Side) - Aux Coolant System

**Category:** C-C **Description:** Integral Attachments for Pressure Vessels

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Aux Coolant System

**Category:** C-C **Description:** Integral Attachments for Piping

| Item No. | Component Description                | Drawing | IE | Identity <sup>1</sup> | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| C3.20    | Integrally Welded Piping Attachments | M-1170  |    | RHR-H38               |                     | X    |      |                    |   |   |     | E2-7                        | Lugs 1" thick<br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br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# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - RHR Pumps - Aux Coolant System

Category: C-C Description: Integral Attachments for Pumps

| Item No. | Component Description                   | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                         |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C3.30    | Integrally Welded Attachments for Pumps | M-1125  |    | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Valves - Aux Coolant System

**Category:** C-C **Description:** Integral Attachments for Valves

| Item No. | Component Description                   | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                         |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C3.40    | Integrally Welded Attachments to Valves | -----   | -  | -----    | Not Applicable      |      |      | -                  | - | - | -   | -----                       |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - RHR Heat Exchangers (Tube Side) - Aux Coolant System

**Category:** C-D **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity  | Examination Methods |      |            | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|-----------|---------------------|------|------------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |           | Vol.                | Sur. | Vis.       | 1                  | 2 | 3 | EOI |                             |          |
| C4.10    | Bolts & Studs         | M-1207  |    | - - - - - | -                   | Not  | Applicable | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Excess Letdown Heat Exchanger (Shell Side) - Aux Coolant System

**Category:** C-D      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description          | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C4.10    | Pressure Vessels Bolts & Studs | M-1221  |    | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Piping, Valves - Aux Coolant System

Category: C-D Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description   | Drawing | IE  | Identity | Examination Methods |      |      | Examination Period |     |     |     | Exemption or Relief Request | Comments |
|----------|-------------------------|---------|-----|----------|---------------------|------|------|--------------------|-----|-----|-----|-----------------------------|----------|
|          |                         |         |     |          | Vol.                | Sur. | Vis. | 1                  | 2   | 3   | EOI |                             |          |
| C4.20    | Bolts & Studs in Piping | ---     | --- | -----    | Not Applicable      |      |      | ---                | --- | --- | --- | ---                         |          |
| C4.40    | Bolts & Studs in Valves | ---     | --- | -----    | Not Applicable      |      |      | ---                | --- | --- | --- | ---                         |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - RHR Pumps - Aux Coolant System

**Category:** C-D **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity  | Examination Methods |      |            | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|-----------|---------------------|------|------------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |           | Vol.                | Sur. | Vis.       | 1                  | 2 | 3 | EOI |                             |          |
| C4.30    | Bolts & Studs         | M-1215  |    | - - - - - | -                   | Not  | Applicable | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Auxiliary Coolant System

Pressure Retaining Welds in Piping

**Category:** C-F (C-F, 1974S1975)      **Description:** (Circulates Reactor Coolant)

| Item No. | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                            |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C2.1     | Circumferential Butt Welds | M-1169  |    | RHR-W45  | X                   |      |      |                    |   |   |     |                             |          |
|          |                            |         |    | RHR-W46  | X                   |      |      | /                  |   |   |     |                             |          |
|          |                            |         |    | RHR-W47  | X                   |      |      |                    |   |   |     |                             |          |
|          |                            |         |    | RHR-W48  | X                   |      |      | /                  |   |   |     |                             |          |
|          |                            |         |    | RHR-W49  | X                   |      |      |                    |   | / |     |                             |          |
|          |                            |         |    | RHR-W50  | X                   |      |      |                    |   | / |     |                             |          |
|          |                            |         |    | RHR-W51  | X                   |      |      |                    |   |   |     |                             |          |
|          |                            |         |    | RHR-W53  | +                   | +    |      |                    |   |   |     |                             |          |
|          |                            |         |    | RHR-W54  | +                   | +    |      |                    |   |   |     |                             |          |
|          |                            |         |    | RHR-W55  | X                   |      |      |                    |   |   |     |                             |          |
|          |                            |         |    | RHR-W56  | X                   |      |      | /                  |   |   |     |                             |          |
|          |                            |         |    | RHR-W57  | X                   |      |      | /                  |   |   |     |                             |          |
|          |                            |         |    | RHR-W58  | X                   |      |      | /                  |   |   |     |                             |          |
|          |                            |         |    | RHR-W59  | X                   |      |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Piping - Auxiliary Coolant System

Category: C-F (C-F, 1974S1975) Description: Pressure Retaining Welds in Piping (Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments              |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------|
|                  |                            |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                       |
| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1169  |    | RHR-W60  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W61  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W62  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W63  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W64  | X                   |      |      |                    | / |   |     |                             |                       |
|                  |                            |         |    | RHR-W65  | X                   |      |      |                    | / |   |     |                             |                       |
|                  |                            |         |    | RHR-W66  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W67  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W68  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W69  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W71  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W72  | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W73  | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry |
|                  |                            |         |    | RHR-W74  | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Auxiliary Coolant System  
**Category:** C-F (C-F, 1974S1975) **Description:** Pressure Retaining Welds in Piping (Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------|
|                  |                            |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                         |
| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1169  |    | RHR-W103 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W104 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W105 | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry*  |
|                  |                            |         |    | RHR-W106 | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry*  |
|                  |                            | M-1170  |    | RHR-W75  | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W76  | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W77  | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W78  | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W79  | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W80  | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry*  |
|                  |                            |         |    | RHR-W81  | X                   |      |      |                    |   | / |     |                             |                         |
|                  |                            |         |    | RHR-W82  | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W83  | X                   |      |      |                    | / |   |     |                             | 1st interval indication |
|                  |                            |         |    | RHR-W84  | X                   |      |      |                    |   |   |     |                             |                         |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Auxiliary Coolant System

Pressure Retaining Welds in Piping

**Category:** C-F (C-F, 1974S1975)

**Description:** (Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments               |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|------------------------|
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| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1170  |    | RHR-W85  | X                   |      |      |                    |   |   |     |                             | Inaccessible/geometry* |
|                  |                            |         |    | RHR-W87  | X                   |      |      |                    |   | / |     |                             |                        |
|                  |                            |         |    | RHR-W88  | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W89  | +                   | +    |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W90  | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W91  | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W92  | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W93  | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W94  | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W96  | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W97  | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W98  | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W99  | X                   |      |      | /                  |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W100 | X                   |      |      | /                  |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W101 | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry  |
|                  |                            |         |    | RHR-W102 | X                   |      |      |                    |   |   |     |                             |                        |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Auxiliary Coolant System

**Category:** C-F (C-F, 1974S1975) **Description:** Pressure Retaining Welds in Piping  
(Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------|
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| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1171  |    | RHR-W107 | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry*  |
|                  |                            |         |    | RHR-W108 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W109 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W110 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W111 | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry*  |
|                  |                            |         |    | RHR-W112 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W113 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W114 | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry*  |
|                  |                            |         |    | RHR-W115 | X                   |      |      | /                  |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W116 | X                   |      |      |                    | / |   |     |                             | 1st interval indication |
|                  |                            |         |    | RHR-W117 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W118 | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry*  |
|                  |                            |         |    | RHR-W119 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W120 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W121 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W123 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W124 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W126 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W127 | X                   |      |      |                    |   |   |     |                             |                         |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Auxiliary Coolant System

Pressure Retaining Welds in Piping

**Category:** C-F (C-F, 1974S1975)

**Description:** (Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments              |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------------------|
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| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1172  |    | RHR-W147 | X                   |      |      |                    |   |   |     | E2-4                        | Inaccessible/geometry |
|                  |                            |         |    | RHR-W148 | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W149 | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W150 | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W151 | X                   |      |      |                    | / |   |     |                             |                       |
|                  |                            |         |    | RHR-W152 | X                   |      |      |                    | / |   |     |                             |                       |
|                  |                            |         |    | RHR-W191 | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W192 | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W193 | +                   | +    |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W194 | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W195 | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W196 | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W197 | X                   |      |      |                    |   | / |     |                             |                       |
|                  |                            |         |    | RHR-W198 | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W199 | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W200 | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W201 | X                   |      |      |                    |   |   |     |                             |                       |
|                  |                            |         |    | RHR-W202 | X                   |      |      |                    |   | / |     |                             |                       |
|                  |                            |         |    | RHR-W203 | X                   |      |      |                    |   | / |     |                             |                       |
|                  |                            |         |    | RHR-W204 | X                   |      |      |                    |   |   |     |                             |                       |





# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Auxiliary Coolant System

**Category:** C-F (C-F, 1974S1975) **Description:** Pressure Retaining Welds in Piping (Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------|
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| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1173  |    | RHR-W153 | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry** |
|                  |                            |         |    | RHR-W154 | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry*  |
|                  |                            |         |    | RHR-W155 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W156 | X                   |      |      |                    | / |   |     |                             |                         |
|                  |                            |         |    | RHR-W157 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W158 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W159 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W160 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W161 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W162 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W163 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W164 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W165 | +                   | +    |      |                    |   |   |     |                             | Inaccessible/geometry*  |
|                  |                            |         |    | RHR-W166 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W167 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W168 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W169 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W170 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W171 | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | RHR-W172 | X                   |      |      |                    |   |   |     |                             |                         |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Auxiliary Coolant System

**Category:** C-F (C-F, 1974S1975) **Description:** Pressure Retaining Welds in Piping  
(Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE       | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|----------------------------|---------|----------|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1173  |          | RHR-W173 | X                   |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W174 | X        |                     |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W175 | X        |                     |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W176 | X        |                     |      |      |                    | / |   |     |                             |          |
|                  |                            |         | RHR-W177 | X        |                     |      |      |                    | / |   |     |                             |          |
|                  |                            |         | RHR-W178 | X        |                     |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W179 | X        |                     |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W180 | X        |                     |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W181 | X        |                     |      |      |                    | / |   |     |                             |          |
|                  |                            |         | RHR-W182 | X        |                     |      |      |                    | / |   |     |                             |          |
|                  |                            |         | RHR-W183 | X        |                     |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W184 | X        |                     |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W185 | +        | +                   |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W186 | X        |                     |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W187 | X        |                     |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W188 | +        | +                   |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W189 | X        |                     |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W190 | X        |                     |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W210 | X        |                     |      |      |                    |   |   |     |                             |          |
|                  |                            |         | RHR-W211 | +        | +                   |      |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Auxiliary Coolant System

**Category:** C-F (C-F, 1974S1975) **Description:** Pressure Retaining Welds in Piping  
(Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments               |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|------------------------|
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| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1173  |    | RHR-W212 | X                   |      |      |                    |   |   |     |                             | Inaccessible/geometry* |
|                  |                            |         |    | RHR-W213 | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W214 | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W215 | X                   |      |      | /                  |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W216 | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W217 | +                   | +    |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W218 | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W219 | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W220 | +                   | +    |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W221 | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W222 | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W223 | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W224 | +                   | +    |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W225 | +                   | +    |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W226 | +                   | +    |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W227 | +                   | +    |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W228 | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W229 | X                   |      |      |                    |   |   |     |                             |                        |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Aux Coolant System

Pressure Retaining Welds in Piping

**Category:** C-F (C-F, 1974S1975)

**Description:** (Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments               |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|------------------------|
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| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1173  |    | RHR-W246 | X                   |      |      |                    |   |   |     |                             | Inaccessible/geometry* |
|                  |                            |         |    | RHR-W247 | +                   | +    |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W248 | X                   |      |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W249 | +                   | +    |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W250 | +                   | +    |      |                    |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W251 | X                   |      |      | /                  |   |   |     |                             |                        |
|                  |                            |         |    | RHR-W252 | X                   |      |      | /                  |   |   |     |                             |                        |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Auxiliary Coolant System

## Pressure Retaining Welds in Piping

Category: C-F (C-G, 1974S1975)

**Description:** (Circulates Reactor Coolant)

| Item No. | Component Description           | Drawing | IE  | Identity   | Examination Methods |      |      | Examination Period |     |     |     | Exemption or Relief Request | Comments               |
|----------|---------------------------------|---------|-----|------------|---------------------|------|------|--------------------|-----|-----|-----|-----------------------------|------------------------|
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| C2.2     | Longitudinal Joints in Fittings | ---     | --- | ---        | Not Applicable      |      |      | ---                | --- | --- | --- | ---                         |                        |
| C2.3     | Branch Pipe to Pipe Weld Joints | M-1169  |     | RHR-W52BC  | X                   |      |      |                    |     |     |     |                             | Inaccessible/geometry* |
|          |                                 |         |     | RHR-W70BC  | X                   |      |      |                    |     |     |     | Inaccessible/geometry*      |                        |
|          |                                 | M-1170  |     | RHR-W86BC  | X                   |      |      |                    |     |     |     | Inaccessible/geometry*      |                        |
|          |                                 |         |     | RHR-W95BC  | X                   |      |      |                    |     |     |     | Inaccessible/geometry*      |                        |
|          |                                 | M-1171  |     | RHR-W125BC | X                   |      |      |                    |     |     |     | Inaccessible/geometry*      |                        |
|          |                                 |         |     | RHR-W122BC | X                   |      |      |                    |     |     |     | Inaccessible/geometry*      |                        |
|          |                                 | M-1172  |     | RHR-W238BC | X                   |      |      |                    |     |     |     | Inaccessible/geometry*      |                        |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - RHR Pumps - Aux Coolant System

Category: C-G Description: Pressure Retaining Welds in Pumps

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C6.10    | Pump Casing Welds     | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Valves - Aux Coolant System

Category: C-G Description: Pressure Retaining Welds in Valves

| Item No. | Component Description | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C6.20    | Valve Body Welds      | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |



## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Auxiliary Coolant System

**Category:** C-H **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Containment Spray System

**Category:** C-A      **Description:** Pressure Retaining Welds in Pressure Vessels

| Item No. | Component Description       | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                             |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| Cl.10    | Shell Circumferential Welds | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| Cl.20    | Head Circumferential Welds  | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| Cl.30    | Tubesheet to Shell Welds    | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Containment Spray System

**Category:** C-B      **Description:** Pressure Retaining Nozzle Welds in Vessels

| Item No. | Component Description                                                    | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------------------------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                                          |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C2.10    | Nozzles in Vessels $\leq 1/2$ " Nominal Thickness                        | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| C2.11    | Nozzle to Shell (or Head) Weld                                           | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| C2.20    | Nozzles Without Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| C2.21    | Nozzle to Shell (or Head) Weld                                           | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| C2.22    | Nozzle Inside Radius Section                                             | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| C2.30    | Nozzles With Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness    | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| C2.31    | Reinforcing Plate Welds to Nozzle & Vessel                               | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| C2.32    | Nozzle to Shell (or Head) Welds Inside of Vessel Accessible              | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Containment Spray System

**Category:** C-C **Description:** Integral Attachments for Vessels, Piping, Pumps, and Valves

| Item No.                                                                                                      | Component Description                     | Drawing | IE | Identity <sup>1</sup> | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments      |
|---------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------|----|-----------------------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|---------------|
|                                                                                                               |                                           |         |    |                       | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |               |
| C3.10                                                                                                         | Integral Attachments for Pressure Vessels | ---     | -  | ---                   | Not Applicable      |      |      | ---                |   |   |     | ---                         |               |
| C3.20                                                                                                         | Integrally Welded Piping Attachments      | M-1174  |    | CS-H3                 |                     | X    |      |                    | / |   |     |                             | Lugs 1" thick |
|                                                                                                               |                                           | M-1175  |    | CS-H9                 |                     | X    |      |                    | / |   |     |                             | Lugs 1" thick |
| C3.40                                                                                                         | Integral Attachments for Valves           | ---     | -  | ---                   | Not Applicable      |      |      | ---                |   |   |     | ---                         |               |
| 1 - Identification numbers correspond to the component support where the integral piping attachment is found. |                                           |         |    |                       |                     |      |      |                    |   |   |     |                             |               |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Containment Spray Pumps - Containment Spray System

**Category:** C-C **Description:** Integral Attachments for Pumps

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Containment Spray System

**Category:** C-D      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description             | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                   |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C4.10    | Bolts & Studs in Pressure Vessels | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| C4.20    | Bolts & Studs in Piping           | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| C4.40    | Bolts & Studs in Valves           | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Containment Spray Pumps - Containment Spray System

**Category:** C-D **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Piping - Containment Spray System  
 Category: C-F (C-F, 1974S1975) Description: Pressure Retaining Welds in Piping (Circulates Reactor Coolant)

| Item No. | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |  |      |
|----------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|--|------|
|          |                            |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |  |      |
| C2.1     | Circumferential Butt Welds | M-1174  |    | RHR-W262 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W263 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W264 | X                   |      |      |                    |   |   |     |                             |          |  | E2-3 |
|          |                            |         |    | RHR-W265 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W266 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W267 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W268 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W269 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W270 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W271 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W272 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W273 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W274 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W275 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            | M-1175  |    | RHR-W298 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W299 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W300 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W301 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W302 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |
|          |                            |         |    | RHR-W303 | X                   |      |      |                    |   |   |     |                             | E2-3     |  |      |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Containment Spray System

**Category:** C-F (C-F, 1974S1975) **Description:** Pressure Retaining Welds in Piping  
(Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|                  |                            |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1175  |    | RHR-W304 | X                   |      |      |                    |   |   |     | E2-3                        |          |
|                  |                            |         |    | RHR-W305 | X                   |      |      |                    |   |   |     | E2-3                        |          |
|                  |                            |         |    | RHR-W306 | X                   |      |      |                    |   |   |     | E2-3                        |          |
|                  |                            |         |    | RHR-W307 | X                   |      |      |                    |   |   |     | E2-3                        |          |
|                  |                            |         |    | RHR-W308 | X                   |      |      |                    |   |   |     | E2-3                        |          |
|                  |                            |         |    | RHR-W309 | X                   |      |      |                    |   |   |     | E2-3                        |          |
|                  |                            |         |    | RHR-W310 | X                   |      |      |                    |   |   |     | E2-3                        |          |
|                  |                            |         |    | RHR-W311 | X                   |      |      |                    |   |   |     | E2-3                        |          |
|                  |                            |         |    | RHR-W312 | X                   |      |      |                    |   |   |     | E2-3                        |          |
|                  |                            |         |    | RHR-W313 | X                   |      |      |                    |   |   |     | E2-3                        |          |
|                  |                            |         |    | RHR-W314 | X                   |      |      |                    |   |   |     | E2-3                        |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Containment Spray System

**Category:** C-F (C-F, 1974S1975) **Description:** Pressure Retaining Welds in Piping  
(Circulates Reactor Coolant)

| Item No. | Component Description           | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |     |     |     | Exemption or Relief Request | Comments |
|----------|---------------------------------|---------|----|----------|---------------------|------|------|--------------------|-----|-----|-----|-----------------------------|----------|
|          |                                 |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2   | 3   | EOI |                             |          |
| C2.2     | Longitudinal Joints in Fittings | ---     | -  | ---      | Not Applicable      |      |      | ---                | --- | --- | --- | ---                         |          |
| C2.3     | Branch Pipe to Pipe Weld Joints | ---     | -  | ---      | Not Applicable      |      |      | ---                | --- | --- | --- | ---                         |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Valves - Containment Spray System

**Category:** C-G      **Description:** Pressure Retaining Welds in Valves

| Item No. | Component Description | Drawing | IE  | Identity | Examination Methods |      |      | Examination Period |     |     |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|-----|----------|---------------------|------|------|--------------------|-----|-----|-----|-----------------------------|----------|
|          |                       |         |     |          | Vol.                | Sur. | Vis. | 1                  | 2   | 3   | EOI |                             |          |
| C6.20    | Valve Body Welds      | -----   | --- | -----    | Not Applicable      |      |      | ---                | --- | --- | --- | -----                       |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Containment Spray Pumps - Containment Spray System

**Category:** C-G **Description:** Pressure Retaining Welds in Pumps

[illegible]

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Containment Spray

**Category:** C-H **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Accumulators - Safety Injection System

**Category:** C-A **Description:** Pressure Retaining Welds in Pressure Vessels

| Item No. | Component Description       | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                             |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C1.10    | Shell Circumferential Welds |         |    |           | X                   |            |      |                    |   |   |     | E2-6                        |          |
| C1.20    | Head Circumferential Welds  |         |    |           | X                   |            |      |                    |   |   |     | E2-6                        |          |
| C1.30    | Tubesheet to Shell Welds    | - - - - | -  | - - - - - | Not                 | Applicable | -    | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Accumulators - Safety Injection System

**Category:** C-B **Description:** Pressure Retaining Nozzle Welds in Vessels

| Item No. | Component Description                                                    | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                               |
|----------|--------------------------------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                                                                          |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                                        |
| C2.10    | Nozzles in Vessels $\leq 1/2$ " Nominal Thickness                        |         |    |          |                     |      |      |                    |   |   |     |                             | This component is exempt from any applicable examination requirements of this category. Therefore, vessel thickness and reinforcing plate information is not relevant. |
| C2.11    | Nozzle to Shell (or Head) Weld                                           |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                                        |
| C2.20    | Nozzles Without Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                                        |
| C2.21    | Nozzle to Shell (or Head) Weld                                           |         |    |          | X                   | X    |      |                    |   |   |     |                             |                                                                                                                                                                        |
| C2.22    | Nozzle Inside Radius Section                                             |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                        |
| C2.30    | Nozzles with Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness    |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                                        |
| C2.31    | Reinforcing Plate Welds to Nozzle & Vessel                               |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                                        |
| C2.32    | Nozzle to Shell (or Head) Welds Inside of Vessel Accessible              |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                                        |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Accumulators - Safety Injection System

Category: C-C Description: Integral Attachments for Vessels

| Item No. | Component Description                             | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                   |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C3.10    | Integrally Welded Attachments to Pressure Vessels |         |    | 1A       |                     | X    |      |                    |   |   |     | E2-6                        |          |
|          |                                                   |         |    | 1B       |                     | X    |      |                    |   |   |     | E2-6                        |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Safety Injection System

**Category:** C-C **Description:** Integral Attachments for Piping and Valves

| Item No.                                                                                                          | Component Description                    | Drawing | IE  | Identity <sup>1</sup> | Examination Methods |      |      | Examination Period |       |           |           | Exemption or Relief Request | Comments      |                         |
|-------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------|-----|-----------------------|---------------------|------|------|--------------------|-------|-----------|-----------|-----------------------------|---------------|-------------------------|
|                                                                                                                   |                                          |         |     |                       | Vol.                | Sur. | Vis. | 1                  | 2     | 3         | EOI       |                             |               |                         |
| C3.20                                                                                                             | Integrally Welded Piping Attachments     | M-1173  |     | RSI-H1                |                     | X    |      |                    |       | /         |           |                             | Lugs 1" thick |                         |
|                                                                                                                   |                                          | M-1174  |     | SI-H15                |                     | X    |      |                    |       |           |           | E2-7                        |               |                         |
|                                                                                                                   |                                          |         |     | RHR-H10F              |                     | X    |      |                    |       |           |           | E2-7                        |               |                         |
|                                                                                                                   |                                          | M-1175  |     | RHR-10B               |                     | X    |      |                    |       |           |           | E2-7                        |               |                         |
|                                                                                                                   |                                          |         |     | RHR-10C               |                     | X    |      |                    |       |           |           | E2-7                        |               |                         |
|                                                                                                                   |                                          |         |     | RHR-10G               |                     | X    |      |                    |       |           |           | E2-7                        |               |                         |
|                                                                                                                   |                                          |         |     | SI-H10                |                     | X    |      |                    |       |           |           | E2-7                        |               |                         |
|                                                                                                                   |                                          |         |     | SI-H11                |                     | X    |      |                    |       |           |           | E2-7                        |               |                         |
|                                                                                                                   |                                          | M-1176  |     | RSI-H60               |                     | X    |      |                    | /     |           |           |                             |               | Lugs estimated 1" thick |
|                                                                                                                   |                                          |         |     | RSI-H51               |                     | X    |      |                    |       |           |           | E2-7                        |               |                         |
|                                                                                                                   |                                          |         |     | RSI-H50               |                     | X    |      |                    |       |           |           | E2-7                        |               |                         |
|                                                                                                                   |                                          |         |     | RSI-H49               |                     | X    |      |                    |       |           |           | E2-7                        |               |                         |
|                                                                                                                   |                                          |         |     | RSI-H47               |                     | X    |      |                    |       |           |           | E2-7                        |               |                         |
|                                                                                                                   |                                          |         |     |                       |                     |      |      |                    |       |           |           |                             |               |                         |
| C3.40                                                                                                             | Integrally Welded Attachments for Valves | - - - - | - - | - - - - -             | Not Applicable      |      |      | - - -              | - - - | - - - - - | - - - - - |                             |               |                         |
| 1 - The identification numbers correspond to the component support where the integral piping attachment is found. |                                          |         |     |                       |                     |      |      |                    |       |           |           |                             |               |                         |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Safety Injection Pumps - Safety Injection System

Category: C-C Description: Integral Attachments to Pumps

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Safety Injection System

Category: C-D Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description          | Drawing | IE  | Identity  | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------------|---------|-----|-----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                |         |     |           | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C4.10    | Pressure Vessels Bolts & Studs | - - - - | - - | - - - - - | Not Applicable      |      |      | -                  | - | - | -   | - - - - -                   |          |
| C4.20    | Piping Bolts & Studs           | - - - - | - - | - - - - - | Not Applicable      |      |      | -                  | - | - | -   | - - - - -                   |          |
| C4.40    | Valves Bolts & Studs           | - - - - | - - | - - - - - | Not Applicable      |      |      | -                  | - | - | -   | - - - - -                   |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Safety Injection Pumps - Safety Injection System

**Category:** C-D **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Safety Injection System

**Category:** C-F (C-F, 1974S1975)

Pressure Retaining Welds in Piping

**Description:** (Circulates Reactor Coolant)

| Item No. | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |                        |  |      |
|----------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|------------------------|--|------|
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| C2.1     | Circumferential Butt Welds | M-1173  |    | SI-W124  | +                   | ±    |      |                    |   |   |     |                             | E2-4     | Inaccessible/geometry* |  |      |
|          |                            |         |    | SI-W125  | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | SI-W126  | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | SI-W127  | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W253 | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W254 | X                   |      | /    |                    |   |   |     |                             |          |                        |  |      |
|          |                            | M-1174  |    | RHR-W285 | X                   |      |      |                    |   |   |     |                             |          |                        |  | E2-4 |
|          |                            |         |    | RHR-W284 | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W255 | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W256 | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W257 | X                   |      | /    |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W258 | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W259 | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W260 | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W261 | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W276 | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W277 | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W278 | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |
|          |                            |         |    | RHR-W279 | X                   |      |      |                    |   |   |     |                             |          |                        |  |      |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Piping - Safety Injection System  
 Category: C-F (C-F, 1974S1975) Description: Pressure Retaining Welds in Piping (Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |      |     | Exemption or Relief Request | Comments               |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|------|-----|-----------------------------|------------------------|
|                  |                            |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3    | EOI |                             |                        |
| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1174  |    | RHR-W280 | X                   |      |      |                    |   |      |     |                             | Inaccessible/geometry* |
|                  |                            |         |    | RHR-W281 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W282 | X                   |      |      | /                  |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W283 | +                   | +    |      |                    |   |      |     |                             |                        |
|                  |                            | M-1175  |    | RHR-W286 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W287 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W288 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W289 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W290 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W291 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W292 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W293 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W294 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W295 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W296 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W297 | X                   |      |      | /                  |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W315 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W316 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W317 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    | RHR-W318 | X                   |      |      |                    |   |      |     |                             |                        |
|                  |                            |         |    |          |                     |      |      |                    |   | E2-4 |     |                             |                        |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Safety Injection System

**Category:** C-F (C-F, 1974S1975) **Description:** Pressure Retaining Welds in Piping (Circulates Reactor Coolant)

Category: C-F (C-F, 1974S1975)

**Description:** (Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |                        |  |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|------------------------|--|
|                  |                            |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |                        |  |
| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1175  |    | RHR-W319 | X                   |      |      |                    |   |   |     |                             | E2-4     | Inaccessible/geometry* |  |
|                  |                            |         |    | RHR-W320 | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | RHR-W321 | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | RHR-W322 | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | RHR-W323 | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | RHR-W323 | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | RHR-W324 | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | RHR-W325 | X                   |      | /    |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | RHR-W326 | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | RHR-W327 | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | RHR-W328 | +                   | +    |      |                    |   |   |     |                             |          |                        |  |
|                  |                            | M-1176  |    | SI-W128  | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | SI-W129  | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | SI-W130  | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | SI-W131  | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | SI-W132  | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | SI-W133  | X                   |      |      |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | SI-W134  | X                   |      | /    |                    |   |   |     |                             |          |                        |  |
|                  |                            |         |    | SI-W135  | X                   |      |      |                    |   |   |     |                             |          |                        |  |





# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Piping - Safety Injection System  
 Category: C-F (C-F, 1974S1975) Description: Pressure Retaining Welds in Piping (Circulates Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------|
|                  |                            |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                         |
| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1176  |    | SI-W156  | X                   |      |      |                    |   | / |     |                             | Inaccessible/geometry** |
|                  |                            |         |    | SI-W157  | X                   |      |      |                    |   |   |     | E2-4                        |                         |
|                  |                            |         |    | SI-W158  | X                   |      |      |                    |   |   |     | E2-4                        |                         |
|                  |                            |         |    | SI-W159  | X                   |      |      |                    |   |   |     | E2-4                        |                         |
|                  |                            |         |    | SI-W160  | +                   | +    |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | SI-W161  | X                   |      |      | /                  |   |   |     |                             |                         |
|                  |                            |         |    | SI-W162  | X                   |      |      |                    |   |   |     | E2-4                        |                         |
|                  |                            |         |    | SI-W163  | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | SI-W164  | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | SI-W165  | X                   |      |      |                    |   |   |     | E2-4                        |                         |
|                  |                            |         |    | SI-W166  | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | SI-W167  | X                   |      |      |                    | / |   |     | RR-2-3                      |                         |
|                  |                            |         |    | SI-W168  | X                   |      |      |                    |   |   |     |                             |                         |
|                  |                            |         |    | SI-W169  | X                   |      |      | /                  |   |   |     |                             |                         |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Safety Injection System

Pressure Retaining Welds in Piping  
(Circulates Reactor Coolant)

**Category:** C-F (C-G, 1974S1975)

**Description:** \_\_\_\_\_

| Item No. | Component Description           | Drawing | IE  | Identity | Examination Methods |      |      | Examination Period |     |     |     | Exemption or Relief Request | Comments |
|----------|---------------------------------|---------|-----|----------|---------------------|------|------|--------------------|-----|-----|-----|-----------------------------|----------|
|          |                                 |         |     |          | Vol.                | Sur. | Vis. | 1                  | 2   | 3   | EOI |                             |          |
| C2.2     | Longitudinal Joints in Fittings | ---     | --- | -----    | Not Applicable      |      |      | ---                | --- | --- | --- | ---                         |          |
| C2.3     | Branch Pipe to Pipe Weld Joints | ---     | --- | -----    | Not Applicable      |      |      | ---                | --- | --- | --- | ---                         |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Safety Injection Pumps - Safety Injection System

**Category:** C-G (1980W81)      **Description:** Pressure Retaining Welds in Pumps

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Valves - Safety Injection System

**Category:** C-G **Description:** Pressure Retaining Welds in Valves

| Item No. | Component Description | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments  |
|----------|-----------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|-----------|
|          |                       |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |           |
| C6.20    | Valve Body Welds      | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | -                           | - - - - - |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Safety Injection System

**Category:** C-H **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Steam Generators - Main Steam System

**Category:** C-A      **Description:** Pressure Retaining Welds in Pressure Vessels

| Item No. | Component Description                           | Drawing | IE    | Identity | Examination Methods |            |      | Examination Period |       |       |       | Exemption or Relief Request | Comments                              |
|----------|-------------------------------------------------|---------|-------|----------|---------------------|------------|------|--------------------|-------|-------|-------|-----------------------------|---------------------------------------|
|          |                                                 |         |       |          | Vol.                | Sur.       | Vis. | 1                  | 2     | 3     | EOI   |                             |                                       |
| C1.10    | Steam Generators Shell Circumferential Welds    | M-1206  |       | SG-W2    | X                   |            |      |                    |       |       |       |                             | SG 1A                                 |
|          |                                                 |         |       | SG-W3    |                     |            |      |                    |       | /     |       |                             | SG 1A                                 |
|          |                                                 |         |       | SG-W4    | X                   |            |      |                    |       | /     |       |                             | SG 1A                                 |
|          |                                                 |         |       | SG-W5    | X                   |            |      |                    | /     |       |       |                             | SG 1A                                 |
|          |                                                 |         |       | SG-W10   | X                   |            |      | /                  |       |       |       |                             | SG 1B                                 |
|          |                                                 |         |       | SG-W11   | X                   |            |      |                    |       |       |       |                             | SG 1B                                 |
|          |                                                 |         |       | SG-W12   | X                   |            |      |                    |       |       |       |                             | Inaccessible/whip restraints<br>SG 1B |
|          |                                                 |         |       | SG-W13   | X                   |            |      |                    |       |       |       |                             | SG 1B                                 |
| C1.20    | Head to Shell Circumferential Weld (Upper Head) | M-1206  |       | SG-W1    | X                   |            |      | /                  |       |       |       |                             | SG 1A                                 |
|          |                                                 |         |       | SG-W9    | X                   |            |      |                    |       |       |       |                             | SG 1B                                 |
| C1.30    | Tube Sheet to Shell                             | -----   | ----- | -----    | Not                 | Applicable |      | -----              | ----- | ----- | ----- |                             |                                       |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Steam Generators - Main Steam System

**Category:** C-B **Description:** Pressure Retaining Nozzle Welds in Vessels

| Item No.                                                                                                                      | Component Description                                                 | Drawing | IE | Identity           | Examination Methods |            |      | Examination Period |    |   |     | Exemption or Relief Request | Comments |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------|----|--------------------|---------------------|------------|------|--------------------|----|---|-----|-----------------------------|----------|
|                                                                                                                               |                                                                       |         |    |                    | Vol.                | Sur.       | Vis. | 1                  | 2  | 3 | EOI |                             |          |
| C2.10                                                                                                                         | Nozzles in Vessels < 1/2" Nominal Thickness                           | - - - - | -  | - - - - -          | Not                 | Applicable |      | -                  | -  | - | -   | - - - - -                   |          |
| C2.11                                                                                                                         | Nozzle to Shell (or Head) Weld                                        | - - - - | -  | - - - - -          | Not                 | Applicable |      | -                  | -  | - | -   | - - - - -                   |          |
| C2.20                                                                                                                         | Nozzles Without Reinforcing Plate in Vessels > 1/2" Nominal Thickness | M-1206  |    | SG-W8              | X                   | X          |      | /1                 | /2 |   |     |                             | SG 1A    |
|                                                                                                                               |                                                                       |         |    | SG-W16             | X                   | X          |      |                    |    |   |     |                             | SG 1B    |
|                                                                                                                               |                                                                       |         |    | SG-W7              | X                   | X          |      |                    | /  |   |     |                             | SG 1A    |
|                                                                                                                               |                                                                       |         |    | SG-W15             | X                   | X          |      |                    |    |   |     |                             | SG 1B    |
| C2.21                                                                                                                         | Nozzle to Shell (or Head) Weld                                        | - - - - | -  | - - - - -          | Not                 | Applicable |      | -                  | -  | - | -   | - - - - -                   |          |
| C2.22                                                                                                                         | Nozzle Inside Radius Section                                          |         |    | Adjacent to welds: |                     |            |      |                    |    |   |     |                             |          |
|                                                                                                                               |                                                                       |         |    | SG-W8              | X                   |            |      | /1                 | /2 |   |     |                             | SG 1A    |
|                                                                                                                               |                                                                       |         |    | SG-W16             | X                   |            |      |                    |    |   |     |                             | SG 1B    |
|                                                                                                                               |                                                                       |         |    | SG-W7              | X                   |            |      |                    | /  |   |     |                             | SG 1A    |
|                                                                                                                               |                                                                       |         |    | SG-W15             | X                   |            |      |                    |    |   |     |                             | SG 1B    |
| C2.30                                                                                                                         | Nozzles with Reinforcing Plate in Vessels > 1/2" Nominal Thickness    | - - - - | -  | - - - - -          | Not                 | Applicable |      | -                  | -  | - | -   | - - - - -                   |          |
| 1 - Examine 180° in clockwise direction from 0 reference.<br>2 - Examine 180° in counterclockwise direction from 0 reference. |                                                                       |         |    |                    |                     |            |      |                    |    |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Steam Generators - Main Steam System

Category: C-B Description: Pressure Retaining Nozzle Welds in Vessels

| Item No. | Component Description                                       | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-------------------------------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                             |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C2.31    | Reinforcing Plate Welds to Nozzle & Vessel                  | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| C2.32    | Nozzle to Shell (or Head) Welds Inside of Vessel Accessible | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Steam Generators - Main Steam System

Category: C-C Description: Integrally Welded Attachments to Pressure Vessels

| Item No. | Component Description         | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-------------------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                               |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C3.10    | Integrally Welded Attachments | M-1206  |    | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Main Steam S stem y

Category: C-C Description: Integral Attachments for Piping, Pumps, Valves

| Item No. | Component Description                | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |           | Exemption or Relief Request | Comments |  |
|----------|--------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----------|-----------------------------|----------|--|
|          |                                      |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI       |                             |          |  |
| C3.20    | Piping Integrally Welded Attachments | M-1165  |     | MS-H10    |                     | X          |      |                    |   |   |           |                             | E2-7     |  |
|          |                                      |         |     | MS-H11    |                     | X          |      |                    |   |   |           |                             | E2-7     |  |
|          |                                      | M-1167  |     | MS-H1     |                     | X          |      |                    |   |   |           |                             | E2-7     |  |
|          |                                      |         |     | MS-H2     |                     | X          |      |                    |   |   |           |                             | E2-7     |  |
| C3.30    | Pumps Integrally Welded Attachments  | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | - | - | - - - - - | - - - - -                   |          |  |
| C3.40    | Valves Integrally Welded Attachments | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | - | - | - - - - - | - - - - -                   |          |  |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Steam Generators - Main Steam System

**Category:** C-D      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C4.10    | Bolts & Studs         | M-1206  |    | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Main Steam System

**Category:** C-D      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description     | Drawing | IE  | Identity | Examination Methods |      |      | Examination Period |     |     |     | Exemption or Relief Request | Comments |
|----------|---------------------------|---------|-----|----------|---------------------|------|------|--------------------|-----|-----|-----|-----------------------------|----------|
|          |                           |         |     |          | Vol.                | Sur. | Vis. | 1                  | 2   | 3   | EOI |                             |          |
| C4.20    | Piping<br>Bolts and Studs | ---     | --- | -----    | Not Applicable      |      |      | ---                | --- | --- | --- | ---                         |          |
| C4.30    | Pumps<br>Bolts and Studs  | ---     | --- | -----    | Not Applicable      |      |      | ---                | --- | --- | --- | ---                         |          |
| C4.40    | Valves<br>Bolts and Studs | ---     | --- | -----    | Not Applicable      |      |      | ---                | --- | --- | --- | ---                         |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Main Steam System

**Category:** C-F (C-G, 1974S1975)

**Description:** Pressure Retaining Welds in Piping  
(Does Not Circulate Reactor Coolant)

| Item No. | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|          |                            |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOL |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C2.1     | Circumferential Butt Welds | M-1164  |    | MS-W1    | X                   |      |      |                    |   |   |     |                             | Inaccessible/whip restraints*<br>Inaccessible/whip restraints* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W2    | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W3    | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W4    | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W5    | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W6    | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W7    | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W8    | X                   |      | /    |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W9    | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W10   |                     |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W47P  |                     |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W48P  |                     |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            | M-1165  |    | MS-W11   | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W12   | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W13   | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W14   | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W15   | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    | MS-W16   | X                   |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|          |                            |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Main Steam System

**Category:** C-F (C-G, 1974S1975)

**Description:** Pressure Retaining Welds in Piping  
(Does Not Circulate Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |                               | Exemption or Relief Request | Comments |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-------------------------------|-----------------------------|----------|
|                  |                            |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI                           |                             |          |
| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1165  |    | MS-W20   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            |         |    | MS-W21   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            |         |    | MS-W22   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            |         |    | MS-W24   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            |         |    | MS-W26   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            |         |    | MS-W28   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            |         |    | MS-W30   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            |         |    | MS-W32   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            | M-1167  |    | MS-W49   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            |         |    | MS-W50   | X                   |      |      | /                  |   |   |                               |                             |          |
|                  |                            |         |    | MS-W51   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            |         |    | MS-W52   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            |         |    | MS-W53   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            |         |    | MS-W54   | X                   |      |      |                    |   |   |                               |                             |          |
|                  |                            |         |    | MS-W55   |                     |      |      |                    |   |   | Inaccessible/whip restraints  |                             |          |
|                  |                            |         |    | MS-W56   |                     |      |      |                    |   |   | Inaccessible/whip restraints  |                             |          |
|                  |                            |         |    | MS-W57   |                     |      |      |                    |   |   | Inaccessible/whip restraints  |                             |          |
|                  |                            |         |    | MS-W58   |                     |      |      |                    |   |   | Inaccessible/whip restraints  |                             |          |
|                  |                            |         |    | MS-W59   |                     |      |      |                    |   |   | Inaccessible/whip restraints* |                             |          |
|                  |                            |         |    | MS-W60   |                     |      |      |                    |   |   | Inaccessible/whip restraints* |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Piping - Main Steam System

Category: C-F (C-G, 1974S1975) Description: Pressure Retaining Welds in Piping  
(Does Not Circulate Reactor Coolant)

| Item No.         | Component Description      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                      |
|------------------|----------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------|
|                  |                            |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                               |
| C2.1<br>(Cont'd) | Circumferential Butt Welds | M-1167  |    | MS-W61   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W62   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W63   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W64   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W65   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W66   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W67   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W69   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W71   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W73   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W75   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W77   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W79   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W80   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W81   | X                   |      |      |                    |   |   |     |                             |                               |
|                  |                            |         |    | MS-W94P  |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints* |
|                  |                            |         |    | MS-W95P  |                     |      |      |                    |   |   |     |                             | Inaccessible/whip restraints* |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Main Steam System

**Category:** C-F (C-G, 1974S1975)

Pressure Retaining Welds in Piping

**Description:** (Does Not Circulate Reactor Coolant)

| Item No. | Component Description           | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                 |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C.2.2    | Longitudinal Joints in Fittings | M-1164  |    | MS-43L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-44L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-45L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-46L   | X                   |      | /    |                    |   |   |     |                             |          |
|          |                                 | M-1165  |    | MS-33L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-34L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-35L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-36L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-37L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-38L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-39L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-40L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-41L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-42L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 | M-1167  |    | MS-82L   | X                   |      | /    |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-83L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-84L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-85L   | X                   |      |      |                    |   |   |     |                             |          |
|          |                                 |         |    | MS-86L   | X                   |      |      |                    |   |   |     |                             |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Main Steam System

**Category:** C-F (C-G, 1974S1975) **Description:** Pressure Retaining Welds in Piping  
(Does Not Circulate Reactor Coolant)

| Item No.         | Component Description              | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|------------------|------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|                  |                                    |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C2.2<br>(Cont'd) | Longitudinal Joints<br>in Fittings | M-1167  |    | MS-87L   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                    |         |    | MS-88L   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                    |         |    | MS-89L   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                    |         |    | MS-90L   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                    |         |    | MS-91L   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                    |         |    | MS-92L   | X                   |      |      |                    |   |   |     |                             |          |
|                  |                                    |         |    | MS-93L   | X                   |      |      |                    |   |   |     |                             |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - Main Steam System

Category: C-F (C-G, 1974S1975)

**Description:** Pressure Retaining Welds in Piping (Does Not Circulate Reactor Coolant)

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Main Steam System

Category: C-G Description: Pressure Retaining Welds in Pumps and Valves

| Item No. | Component Description | Drawing | IE  | Identity | Examination Methods |      |      | Examination Period |     |     |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|-----|----------|---------------------|------|------|--------------------|-----|-----|-----|-----------------------------|----------|
|          |                       |         |     |          | Vol.                | Sur. | Vis. | 1                  | 2   | 3   | EOI |                             |          |
| C6.10    | Pump Casing Welds     | ---     | --- | ---      | Not Applicable      |      |      | ---                | --- | --- | --- | ---                         |          |
| C6.20    | Valve Body Welds      | ---     | --- | ---      | Not Applicable      |      |      | ---                | --- | --- | --- | ---                         |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Main Steam System

**Category:** C-H **Description:** All Pressure Retaining Components

[illegible]

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Regenerative Heat Exchangers - CVC System

**Category:** C-A **Description:** Pressure Retaining Welds in Pressure Vessels

| Item No.                                                                                                                                                                                        | Component Description                   | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|                                                                                                                                                                                                 |                                         |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C1.10                                                                                                                                                                                           | Shell Circumferential Welds             | -----   | -  | -----    | Not                 | Applicable |      |                    |   |   |     |                             |          |
| C1.20                                                                                                                                                                                           | Head Circumferential Welds <sup>1</sup> | M-1208  |    | ARG-W1   | X                   |            |      |                    |   |   |     | RR-2-1                      |          |
|                                                                                                                                                                                                 |                                         |         |    | ARG-W4   | X                   |            |      |                    |   |   |     | RR-2-1                      |          |
|                                                                                                                                                                                                 |                                         |         |    | ARG-W5   | X                   |            |      |                    |   |   |     | RR-2-1                      |          |
|                                                                                                                                                                                                 |                                         |         |    | ARG-W8   | X                   |            |      |                    |   |   |     | RR-2-1                      |          |
|                                                                                                                                                                                                 |                                         |         |    | ARG-W9   | X                   |            |      |                    |   |   |     | RR-2-1                      |          |
|                                                                                                                                                                                                 |                                         |         |    | ARG-W12  | X                   |            |      |                    |   |   |     | RR-2-1                      |          |
| C1.30                                                                                                                                                                                           | Tubesheet to Shell Welds <sup>1</sup>   |         |    | ARG-W2   | X                   |            |      |                    |   |   |     | RR-2-1                      |          |
|                                                                                                                                                                                                 |                                         |         |    | ARG-W3   | X                   |            |      |                    |   |   |     | RR-2-1                      |          |
|                                                                                                                                                                                                 |                                         |         |    | ARG-W6   | X                   |            |      |                    |   |   |     | RR-2-1                      |          |
|                                                                                                                                                                                                 |                                         |         |    | ARG-W7   | X                   |            |      |                    |   |   |     | RR-2-1                      |          |
|                                                                                                                                                                                                 |                                         |         |    | ARG-W10  | X                   |            |      |                    |   |   |     | RR-2-1                      |          |
|                                                                                                                                                                                                 |                                         |         |    | ARG-W11  | X                   |            |      |                    |   |   |     | RR-2-1                      |          |
| <p>1 - These welds will be examined visually for evidence of leakage during pressure tests although the code requires these welds to be examined volumetrically. See Items C7.10 and C7.20.</p> |                                         |         |    |          |                     |            |      |                    |   |   |     |                             |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Letdown Heat Exchanger (Tube Side) - CVC System

**Category:** C-A **Description:** Pressure Retaining Welds in Pressure Vessels

| Item No.                                                                                                                                                                                                                                                                                                                                            | Component Description            | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |    |    |           | Exemption or Relief Request | Comments |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------|----|-----------|---------------------|------------|------|--------------------|----|----|-----------|-----------------------------|----------|
|                                                                                                                                                                                                                                                                                                                                                     |                                  |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2  | 3  | EOI       |                             |          |
| C1.10                                                                                                                                                                                                                                                                                                                                               | Shell Circum. Welds <sup>1</sup> | M-1209  |    | AHNR-W1   | X                   |            |      | /2                 | /3 | /4 |           |                             |          |
| C1.20                                                                                                                                                                                                                                                                                                                                               | Head Circum. Welds               | M-1209  |    | AHNR-W2   | X                   |            |      | /2                 | /3 | /4 |           |                             |          |
| C1.30                                                                                                                                                                                                                                                                                                                                               | Tubesheet to Shell Weld          | - - - - | -  | - - - - - | Not                 | Applicable | -    | -                  | -  | -  | - - - - - |                             |          |
| <div>1 - The shell side of this component is Class 3.</div> <div>2 - Examine clockwise 0° to 120° using outlet nozzle centerline as 0° reference.</div> <div>3 - Examine clockwise 120° to 240° using outlet nozzle centerline as 0° reference.</div> <div>4 - Examine clockwise 240° to 360° using outlet nozzle centerline as 0° reference.</div> |                                  |         |    |           |                     |            |      |                    |    |    |           |                             |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Charging Pump Pulsation Dampeners - CVC System

**Category:** C-A **Description:** Pressure Retaining Welds in Pressure Vessels

| Item No.                                                                     | Component Description     | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |    |   |     | Exemption or Relief Request | Comments |
|------------------------------------------------------------------------------|---------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|----|---|-----|-----------------------------|----------|
|                                                                              |                           |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2  | 3 | EOI |                             |          |
| C1.10                                                                        | Shell Circum. Welds       | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | -  | - | -   | - - - - -                   |          |
| C1.20                                                                        | Head Circum. Welds        | M-1210  |     | APD-1A-W1 | X                   |            |      | /1                 | /2 |   |     |                             |          |
|                                                                              |                           |         |     | APD-1A-W2 | X                   |            |      |                    | /  |   |     |                             |          |
|                                                                              |                           |         |     | APD-1B-W3 | X                   |            |      |                    |    |   |     |                             |          |
|                                                                              |                           |         |     | APD-1B-W4 | X                   |            |      |                    |    |   |     |                             |          |
|                                                                              |                           |         |     | APD-1C-W5 | X                   |            |      |                    |    |   |     |                             |          |
|                                                                              |                           |         |     | APD-1C-W6 | X                   |            |      |                    |    |   |     |                             |          |
| C1.30                                                                        | Tube Sheet to Shell Welds | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | -  | - | -   | - - - - -                   |          |
| 1 - Examine clockwise 0° to 180° using nametag centerline as 0° reference.   |                           |         |     |           |                     |            |      |                    |    |   |     |                             |          |
| 2 - Examine clockwise 180° to 360° using nametag centerline as 0° reference. |                           |         |     |           |                     |            |      |                    |    |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Volume Control Tank - CVC System

**Category:** C-A      **Description:** Pressure Retaining Welds in Pressure Vessels

| Item No. | Component Description    | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C1.10    | Shell Circum. Welds      | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |
| C1.20    | Head Circum. Welds       | M-1211  |    | VCT-W1   | X                   |            |      |                    |   |   |     | E2-5                        |          |
|          |                          |         |    | VCT-W2   | X                   |            |      |                    |   |   |     | E2-5                        |          |
| C1.30    | Tubesheet to Shell Welds | - - - - | -  | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | - - - -                     |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Seal Water Injection Filters - CVC System

**Category:** C-A **Description:** Pressure Retaining Welds in Pressure Vessels

| Item No.                                                                                                                                                            | Component Description    | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |    |   |     | Exemption or Relief Request | Comments  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|----|---|-----|-----------------------------|-----------|
|                                                                                                                                                                     |                          |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2  | 3 | EOI |                             |           |
| C1.10                                                                                                                                                               | Shell Circum. Welds      | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | -  | - | -   | -                           | -         |
| C1.20                                                                                                                                                               | Head Circum. Welds       | M-1212  |     | AFSI-W1   | X                   |            |      | /1                 | /2 |   |     |                             | Filter 1A |
|                                                                                                                                                                     |                          |         |     | AFSI-W3   | X                   |            |      |                    |    |   |     |                             | Filter 1B |
|                                                                                                                                                                     |                          |         |     | AFSI-W2   | X                   |            |      |                    | /  |   |     |                             | Filter 1A |
|                                                                                                                                                                     |                          |         |     | AFSI-W4   | X                   |            |      |                    |    |   |     |                             | Filter 1B |
| C1.30                                                                                                                                                               | Tubesheet to Shell Welds | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | -  | - | -   | -                           |           |
| 1 - Examine clockwise 0° to 180° using inlet nozzle centerline as 0° reference.<br>2 - Examine clockwise 180° to 360° using inlet nozzle centerline as 0° reference |                          |         |     |           |                     |            |      |                    |    |   |     |                             |           |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Reactor Coolant Filter - CVC System

**Category:** C-A      **Description:** Pressure Retaining Welds in Pressure Vessels

| Item No. | Component Description    | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C1.10    | Shell Circum. Welds      | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C1.20    | Head to Shell Welds      | M-1213  |     | AFRC-W1   | X                   |            |      |                    |   |   |     | E2-5                        |          |
|          |                          |         |     | AFRC-W2   | X                   |            |      |                    |   |   |     | E2-5                        |          |
| C1.30    | Tubesheet to Shell Welds | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Seal Water Return Filter - CVC System

Category: C-A Description: Pressure Retaining Welds in Pressure Vessels

| Item No. | Component Description | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C1.10    | Shell Circum. Weld    | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   | E2-5     |
| C1.20    | Head to Shell Weld    | M-1214  |     | AFSW-W1   | X                   |            |      |                    |   |   |     |                             |          |
|          |                       |         |     | AFSW-W2   | X                   |            |      |                    |   |   |     |                             |          |
| C1.30    | Tubesheet to Shell    | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Seal Water Heat Exchanger (Tube Side) - CVC System

**Category:** C-A **Description:** Pressure Retaining Welds in Pressure Vessels

| Item No. | Component Description    | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|--------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C1.10    | Shell Circum. Welds      | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |
| C1.20    | Head Circum. Welds       | M-1227  |     | AHSW-W    | X                   |            |      | -                  |   |   |     | E2-5                        |          |
| C1.30    | Tubesheet to Shell Welds | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Charging Pump Suction Stabilizers - CVC System

**Category:** C-A **Description:** Pressure Retaining Welds in Pressure Vessels

| Item No. | Component Description    | Drawing | IE | Identity | Examination Methods |       |      | Examination Period |   |   |       | Exemption or Relief Request | Comments |
|----------|--------------------------|---------|----|----------|---------------------|-------|------|--------------------|---|---|-------|-----------------------------|----------|
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| Cl.10    | Shell Circum. Welds      |         | -  | -        | X                   |       | c    |                    | - | - |       | E2-5                        |          |
| Cl.20    | Head Circum. Welds       |         |    |          | X                   |       |      |                    |   |   |       | E2-5                        |          |
| Cl.30    | Tubesheet to Shell Welds | - - - - | -  | - - - -  | Not                 | Appli | able | -                  |   | - | - - - | - - - -                     |          |
|          |                          |         | -  | -        |                     |       | c    |                    | - | - |       |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Regenerative Heat Exchangers - CVC System

**Category:** C-B **Description:** Pressure Retaining Nozzle Welds in Vessels

| Item No. | Component Description                                                    | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                    |
|----------|--------------------------------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| C2.10    | Nozzles in Vessels $\leq 1/2$ " Nominal Thickness                        | M-1208  |    |          |                     |      |      |                    |   |   |     | E2-1                        | This component is exempt from any applicable examination requirements of this category. Vessel thickness and reinforcing plate information is not relevant. |
| C2.11    | Nozzle to Shell (or Head) Weld                                           |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.20    | Nozzles Without Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.21    | Nozzle to Shell (or Head) Weld                                           |         |    |          | X                   | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.22    | Nozzle Inside Radius Section                                             |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.30    | Nozzles with Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness    |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.31    | Reinforcing Plate Welds to Nozzle & Vessel                               |         |    |          |                     |      | X    |                    |   |   |     |                             |                                                                                                                                                             |
| C2.32    | Nozzle to Shell (or Head) Welds Inside of Vessel Accessible              |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Charging Pump Pulsation Dampeners - CVC System

**Category:** C-B **Description:** Nozzle Welds

| Item No. | Component Description                                                 | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                    |
|----------|-----------------------------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                                                                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                             |
| C2.10    | Nozzles in Vessels<br>≤ 1/2" Nominal Thickness                        | M-1210  |    |          |                     |      |      |                    |   |   |     | E2-1                        | This component is exempt from any applicable examination requirements of this category. Vessel thickness and reinforcing plate information is not relevant. |
| C2.11    | Nozzle to Shell (or Head) Weld                                        |         |    |          |                     |      | X    |                    |   |   |     |                             |                                                                                                                                                             |
| C2.20    | Nozzles Without Reinforcing Plate in Vessels > 1/2" Nominal Thickness |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.21    | Nozzle to Shell (or Head) Weld                                        |         |    |          | X                   |      | X    |                    |   |   |     |                             |                                                                                                                                                             |
| C2.22    | Nozzle Inside Radius Section                                          |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.30    | Nozzles with Reinforcing Plate in Vessels > 1/2" Nominal Thickness    |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.31    | Reinforcing Plate Welds to Nozzle & Vessel                            |         |    |          |                     |      | X    |                    |   |   |     |                             |                                                                                                                                                             |
| C2.32    | Nozzle to Shell (or Head) Welds Inside of Vessel Accessible           |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Volume Control Tank - CVC System

**Category:** C-B      **Description:** Pressure Retaining Nozzle Welds in Vessels

| Item No. | Component Description                                                    | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                    |
|----------|--------------------------------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| C2.10    | Nozzles in Vessels $\leq 1/2$ " Nominal Thickness                        | M-1211  |    |          |                     |      |      |                    |   |   |     | E2-1, E2-5                  | This component is exempt from any applicable examination requirements of this category. Vessel thickness and reinforcing plate information is not relevant. |
| C2.11    | Nozzle to Shell (or Head) Weld                                           |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.20    | Nozzles Without Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.21    | Nozzle to Shell (or Head) Weld                                           |         |    |          | X                   | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.22    | Nozzle Inside Radius Section                                             |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.30    | Nozzles with Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness    |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.31    | Reinforcing Plate Welds to Nozzle & Vessel                               |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.32    | Nozzle to Shell (or Head) Welds Inside of Vessel Accessible              |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Seal Water Injection Filters - CVC System

**Category:** C-B

**Description:** Pressure Retaining Nozzle Welds in Vessels

| Item No. | Component Description                                                 | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                    |
|----------|-----------------------------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| C2.10    | Nozzles in Vessels < 1/2" Nominal Thickness                           | M-1212  |    |          |                     |      |      |                    |   |   |     | E2-1                        | This component is exempt from any applicable examination requirements of this category. Vessel thickness and reinforcing plate information is not relevant. |
| C2.11    | Nozzle to Shell (or Head) Weld                                        |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.20    | Nozzles Without Reinforcing Plate in Vessels > 1/2" Nominal Thickness |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.21    | Nozzle to Shell (or Head) Weld                                        |         |    |          | X                   | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.22    | Nozzle Inside Radius Section                                          |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.30    | Nozzles with Reinforcing Plate in Vessels > 1/2" Nominal Thickness    |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.31    | Reinforcing Plate Welds to Nozzle & Vessel                            |         |    |          |                     |      | X    |                    |   |   |     |                             |                                                                                                                                                             |
| C2.32    | Nozzle to Shell (or Head) Welds Inside of Vessel Accessible           |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Reactor Coolant Filter - CVC S stem y

**Category:** C-B **Description:** Pressure Retaining Nozzle Welds in Vessels

| Item No. | Component Description                                                    | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                    |
|----------|--------------------------------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| C2.10    | Nozzles in Vessels $\leq 1/2$ " Nominal Thickness                        | M-1213  |    |          |                     |      |      |                    |   |   |     | E2-1,E2-5                   | This component is exempt from any applicable examination requirements of this category. Vessel thickness and reinforcing plate information is not relevant. |
| C2.11    | Nozzle to Shell (or Head) Weld                                           |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.20    | Nozzles Without Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.21    | Nozzle to Shell (or Head) Weld                                           |         |    |          | X                   | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.22    | Nozzle Inside Radius Section                                             |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.30    | Nozzles with Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness    |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.31    | Reinforcing Plate Welds to Nozzle & Vessel                               |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.32    | Nozzle to Shell (or Head) Welds Inside of Vessel Accessible              |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Seal Water Return Filter - CVC System

**Category:** C-B      **Description:** Pressure Retaining Nozzle Welds in Vessels

| Item No. | Component Description                                                    | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                    |
|----------|--------------------------------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| C2.10    | Nozzles in Vessels $\leq 1/2$ " Nominal Thickness                        | M-1214  |    |          |                     |      |      |                    |   |   |     | E2-1, E2-5                  | This component is exempt from any applicable examination requirements of this category. Vessel thickness and reinforcing plate information is not relevant. |
| C2.11    | Nozzle to Shell (or Head) Weld                                           |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.20    | Nozzles Without Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.21    | Nozzle to Shell (or Head) Weld                                           |         |    |          | X                   | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.22    | Nozzle Inside Radius Section                                             |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.30    | Nozzles with Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness    |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.31    | Reinforcing Plate Welds to Nozzle & Vessel                               |         |    |          |                     |      | X    |                    |   |   |     |                             |                                                                                                                                                             |
| C2.32    | Nozzle to Shell (or Head) Welds Inside of Vessel Accessible              |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Seal Water Heat Exchanger (Tube Side) - CVC System

**Category:** C-B      **Description:** Pressure Retaining Nozzle Welds in Vessels

| Item No. | Component Description                                                    | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                    |
|----------|--------------------------------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| C2.10    | Nozzles in Vessels $\leq 1/2$ " Nominal Thickness                        | M-1227  |    |          |                     |      |      |                    |   |   |     | E2-1, E2-5                  | This component is exempt from any applicable examination requirements of this category. Vessel thickness and reinforcing plate information is not relevant. |
| C2.11    | Nozzle to Shell (or Head) Weld                                           |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.20    | Nozzles Without Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.21    | Nozzle to Shell (or Head) Weld                                           |         |    |          | X                   | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.22    | Nozzle Inside Radius Section                                             |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.30    | Nozzles with Reinforcing Plate in Vessels $> 1/2$ " Nominal Thickness    |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.31    | Reinforcing Plate Welds to Nozzle & Vessel                               |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.32    | Nozzle to Shell (or Head) Welds Inside of Vessel Accessible              |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Charging Pump Suction Stabilizers - CVC System

**Category:** C-B      **Description:** Pressure Retaining Nozzle Welds in Vessels

| Item No. | Component Description                                                 | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                                                                    |
|----------|-----------------------------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                                                                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                                                                             |
| C2.10    | Nozzles in Vessels<br>≤ 1/2" Nominal Thickness                        |         |    |          |                     |      |      |                    |   |   |     | E2-1, E2-5                  | This component is exempt from any applicable examination requirements of this category. Vessel thickness and reinforcing plate information is not relevant. |
| C2.11    | Nozzle to Shell (or Head) Weld                                        |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.20    | Nozzles Without Reinforcing Plate in Vessels > 1/2" Nominal Thickness |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.21    | Nozzle to Shell (or Head) Weld                                        |         |    |          | X                   | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.22    | Nozzle Inside Radius Section                                          |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.30    | Nozzles with Reinforcing Plate in Vessels > 1/2" Nominal Thickness    |         |    |          |                     |      |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.31    | Reinforcing Plate Welds to Nozzle & Vessel                            |         |    |          |                     | X    |      |                    |   |   |     |                             |                                                                                                                                                             |
| C2.32    | Nozzle to Shell (or Head) Welds Inside of Vessel Accessible           |         |    |          | X                   |      |      |                    |   |   |     |                             |                                                                                                                                                             |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Regenerative Heat Exchangers - CVC System

Category: C-C Description: Integral Attachments for Vessels

| Item No. | Component Description                             | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                   |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C3.10    | Integrally Welded Attachments to Pressure Vessels | M-1208  |    | -----    | Not                 | Applicable |      | -                  | - | - | -   | -----                       |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Letdown Heat Exchanger (Tube Side) - CVC System

Category: C-C Description: Integral Attachments to Vessels

| Item No. | Component Description                             | Drawing | IE | Identity             | Examination Methods |        |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------------------------|---------|----|----------------------|---------------------|--------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                                   |         |    |                      | Vol.                | Sur.   | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C3.10    | Integrally Welded Attachments to Pressure Vessels | M-1209  |    | AHNR-SW1<br>AHNR-SW2 |                     | X<br>X |      |                    |   |   |     | E2-7<br>E2-7                |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Charging Pump Pulsation Dampeners - CVC System

**Category:** C-C **Description:** Integrally Welded Attachments to Pressure Vessels

| Item No. | Component Description                             | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C3.10    | Integrally Welded Attachments to Pressure Vessels | M-1210  |    | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Volume Control Tank - CVC System

**Category:** C-C **Description:** Integral Attachments for Pressure Vessels

| Item No. | Component Description                             | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C3.10    | Integrally Welded Attachments to Pressure Vessels | M-1211  |    | VCT-SW1  |                     | X    | c    |                    |   |   |     | E2-5                        |          |
|          |                                                   |         |    | VCT-SW2  |                     | X    |      |                    |   |   |     | E2-5                        |          |
|          |                                                   |         |    | VCT-SW3  |                     | X    |      |                    |   |   |     | E2-5                        |          |
|          |                                                   |         |    | VCT-SW4  |                     | X    |      |                    |   |   |     | E2-5                        |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Seal Water Injection Filters - CVC System

**Category:** C-C      **Description:** Integral Attachments to Pressure Vessels

| Item No. | Component Description                             | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments  |
|----------|---------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|-----------|
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| C3.10    | Integrally Welded Attachments to Pressure Vessels | M-1212  |    | AFSI-SW1 |                     | X    |      |                    |   |   |     | E2-7                        | Filter 1A |
|          |                                                   |         |    | AFSI-SW2 |                     | X    |      |                    |   |   |     | E2-7                        | Filter 1A |
|          |                                                   |         |    | AFSI-SW3 |                     | X    |      |                    |   |   |     | E2-7                        | Filter 1A |
|          |                                                   |         |    | AFSI-SW4 |                     | X    |      |                    |   |   |     | E2-7                        | Filter 1B |
|          |                                                   |         |    | AFSI-SW5 |                     | X    |      |                    |   |   |     | E2-7                        | Filter 1B |
|          |                                                   |         |    | AFSI-SW6 |                     | X    |      |                    |   |   |     | E2-7                        | Filter 1B |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Reactor Coolant Filter - CVC System

**Category:** C-C      **Description:** Integral Attachments to Pressure Vessels

| Item No. | Component Description                             | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C3.10    | Integrally Welded Attachments to Pressure Vessels | M-1213  |    | AFRC-SW1 |                     | X    |      |                    |   |   |     | E2-5                        |          |
|          |                                                   |         |    | AFRC-SW2 |                     | X    |      |                    |   |   |     | E2-5                        |          |
|          |                                                   |         |    | AFRC-SW3 |                     | X    |      |                    |   |   |     | E2-5                        |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Seal Water Return Filter - CVC S stem y

**Category:** C-C **Description:** Integrally Welded Attachments to Pressure Vessels

| Item No. | Component Description                             | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C3.10    | Integrally Welded Attachments to Pressure Vessels | M-1214  |    | AFSW-SW1 |                     | X    |      |                    |   |   |     | E2-5                        |          |
|          |                                                   |         |    | AFSW-SW2 |                     | X    |      |                    |   |   |     | E2-5                        |          |
|          |                                                   |         |    | AFSW-SW3 |                     | X    |      |                    |   |   |     | E2-5                        |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - CVC System

**Category:** C-C      **Description:** Integral Attachments for Piping, Pumps and Valves

| Item No. | Component Description                   | Drawing | IE  | Identity  | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------------------------|---------|-----|-----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                         |         |     |           | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C3.20    | Integrally Welded Attachments to Piping | - - - - | - - | - - - - - | Not Applicable      |      |      | -                  | - | - | -   | - - - - -                   |          |
| C3.40    | Integrally Welded Attachments to Valves | - - - - | - - | - - - - - | Not Applicable      |      |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Charging Pumps

**Category:** C-C **Description:** Integral Attachments for Pumps

| Item No. | Component Description         | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-------------------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C3.30    | Integrally Welded Attachments | M-1216  |    | - - - -  | Not                 | Applicable |      | -                  | - | - | -   | -                           | -        |

# **KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST**

**System:** Class 2 - Seal Water Heat Exchanger (Tube Side) - CVC System

**Category:** C-C      **Description:** Integral Attachments for Pressure Vessels

| Item No. | Component Description                             | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C4.10    | Integrally Welded Attachments to Pressure Vessels | M-1227  |    |          |                     | X    | c    |                    |   |   |     | E2-5                        |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Charging Pump Suction Stabilizers - CVC System

**Category:** C-C **Description:** Integral Attachments for Pressure Vessels

| Item No. | Component Description                             | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C3.10    | Integrally Welded Attachments to Pressure Vessels |         |    |          |                     | X    |      |                    |   |   |     | E2-5                        |          |

# **KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST**

**System:** Class 2 - Regenerative Heat Exchanger - CVC System

**Category:** C-D **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |     |     |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------------|------|--------------------|-----|-----|-----|-----------------------------|----------|
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| C4.10    | Bolts & Studs         | M-1208  |    | -----    | Not                 | Applicable |      | ---                | --- | --- | --- | -----                       |          |

# **KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST**

**System:** Class 2 - Letdown Heat Exchanger (Tube Side) - CVC System

**Category:** C-D **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
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| C4.10    | Bolts & Studs         | M-1209  |    | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Charging Pump Pulsation Dampeners - CVC System

**Category:** C-D      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C4.10    | Bolts & Studs         | M-1210  |    | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Volume Control Tank - CVC System

**Category:** C-D **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |  |
|----------|-----------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|--|
|          |                       |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |  |
| C4.10    | Bolts & Studs         | M-1211  |    | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | -                           | -        |  |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Seal Water Injection Filters - CVC System

Category: C-D Description: Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C4.10    | Bolts & Studs         | M-1212  |    | -----    | Not                 | Applicable |      | -                  | - | - | -   | -----                       |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Reactor Coolant Filter - CVC System

**Category:** C-D **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C4.10    | Bolts & Studs         | M-1213  |    | - - - - - | Not                 | Applicable |      | -                  | - | - | -   |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Seal Water Return Filter - CVC System

**Category:** C-D **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C4.10    | Bolts & Studs         | M-1214  |    |          | X                   |      |      |                    |   |   |     | E2-5                        |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Charging Pumps - CVC System

**Category:** C-D      **Description:** Pressure Retaining Bolting Greater Than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C4.30    | Bolts & Studs         | M-1216  |    | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Seal Water Heater Exchanger - CVC System

Category: C-D Description: Pressure Retaining Bolting Greater than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C4.10    | Bolts and Studs       |         |    |          | X                   |      |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Charging Pump Suction Stabilizers - CVC System

**Category:** C-D **Description:** Pressure Retaining Bolting Greater than 2" Diameter

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C4.10    | Bolts & Studs         |         |    |          | X                   |      |      |                    |   |   |     | E2-5                        |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - CVC System

Category: C-D Description: Pressure Retaining Bolting Greater than 2" Diameter

| Item No. | Component Description | Drawing | IE  | Identity  | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|-----|-----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                       |         |     |           | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C4.20    | Piping Bolts & Studs  | - - - - | - - | - - - - - | Not Applicable      |      |      | -                  | - | - | -   | - - - - -                   |          |
| C4.40    | Valve Bolts & Studs   | - - - - | - - | - - - - - | Not Applicable      |      |      | -                  | - | - | -   | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - Piping - CVC System

**Category:** C-F (C-G, 1974S1975)      **Description:** Pressure Retaining Welds in Piping

| Item No. | Component Description           | Drawing   | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------|---------------------------------|-----------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------|
|          |                                 |           |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |          |
| C2.1     | Circumferential Butt Welds      | X-K100-35 |    |          | X                   |      |      |                    |   |   |     | E2-1                        |          |
|          |                                 | X-K100-36 |    |          | X                   |      |      |                    |   |   |     |                             |          |
| C2.2     | Longitudinal Joints in Fittings | X-K100-35 |    |          | X                   |      |      |                    |   |   |     | E2-1                        |          |
|          |                                 | X-K100-36 |    |          | X                   |      |      |                    |   |   |     |                             |          |
| C2.3     | Branch Pipe to Pipe Weld Joints | X-K100-35 |    |          | X                   |      |      |                    |   |   |     | E2-1                        |          |
|          |                                 | X-K100-36 |    |          |                     |      |      |                    |   |   |     |                             |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 2 - Charging Pumps - CVC System

Category: C-G Description: Pressure Retaining Welds in Pumps

| Item No. | Component Description | Drawing | IE | Identity | Examination Methods |            |      | Examination Period |     |     |     | Exemption or Relief Request | Comments |
|----------|-----------------------|---------|----|----------|---------------------|------------|------|--------------------|-----|-----|-----|-----------------------------|----------|
|          |                       |         |    |          | Vol.                | Sur.       | Vis. | 1                  | 2   | 3   | EOI |                             |          |
| C6.10    | Pump Casing Welds     | M-1216  |    | -----    | Not                 | Applicable |      | ---                | --- | --- | --- | -----                       |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 - CVC System

**Category:** C-H **Description:** All Pressure Retaining Components

[illegible]

CLASS 3

CATEGORY D-A

SYSTEMS IN SUPPORT OF REACTOR SHUTDOWN FUNCTION

The Section XI item D1.10 - Pressure Retaining Components - is not included in this section since this item number is for pressure tests of Class 3 components and is located in the section of this plan entitled Pressure Tests.



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Components Other Than Piping - Feedwater System

**Category:** D-A **Description:** Systems in Support of Reactor Shutdown Function

| Item No. | Component Description                                        | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                      |
|----------|--------------------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|-------------------------------|
|          |                                                              |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |                               |
| D1.20    | Integral Attachments<br>Component Supports                   |         |     |           |                     |            |      |                    |   |   |     |                             |                               |
|          | Support Attachments                                          | M-1231  |     | APF2      |                     |            | VT-3 |                    |   |   | /   |                             | Turbine driven aux fdwtr pump |
|          | Support Attachments                                          | M-1232  |     | APFM-1A   |                     |            | VT-3 |                    |   |   | /   |                             | Motor driven aux fdwtr pump   |
|          |                                                              |         |     | APFM-1B   |                     |            | VT-3 |                    |   |   |     | E3-3                        |                               |
| D1.30    | Integral Attachments<br>Mechanical and<br>Hydraulic Snubbers | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | - | - | -   | - - - - -                   |                               |
| D1.40    | Integral Attachments<br>Spring Type Supports                 | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | - | - | -   | - - - - -                   |                               |
| D1.50    | Integral Attachments<br>Constant Load Type<br>Supports       | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | - | - | -   | - - - - -                   |                               |
| D1.60    | Integral Attachments<br>Shock Absorbers                      | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | - | - | -   | - - - - -                   |                               |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Components Other Than Piping - Aux Coolant System

**Category:** D-A      **Description:** Systems in Support of Reactor Shutdown Function

| Item No. | Component Description                                             | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                         |
|----------|-------------------------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|----------------------------------|
|          |                                                                   |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |                                  |
| D1.20    | Integral Attachments<br>Component Supports<br>Support Attachments | M-1228  |     | RCPC-1A   |                     |            | VT-3 |                    |   |   |     | /                           | Reactor coolant pump oil coolers |
|          |                                                                   |         |     | RCPC-1B   |                     |            | VT-3 |                    |   |   |     | E3-3                        |                                  |
| D1.30    | Integral Attachments<br>Mechanical and<br>Hydraulic Snubbers      | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                                  |
| D1.40    | Integral Attachments<br>Spring Type Supports                      | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                                  |
| D1.50    | Integral Attachments<br>Constant Load Type<br>Supports            | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                                  |
| D1.60    | Integral Attachments<br>Shock Absorbers                           | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                                  |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Piping - CVC System

**Category:** D-A **Description:** Systems in Support of Reactor Shutdown Function

| Item No.                                                                                                 | Component Description                                        | Drawing | IE  | Identity <sup>1</sup> | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments              |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------|-----|-----------------------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|-----------------------|
|                                                                                                          |                                                              |         |     |                       | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |                       |
| D1.20                                                                                                    | Integral Attachments<br>Component Supports<br>and Restraints | - - - - | - - | - - - - -             | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   | Saddle 2-11/16" thick |
| D1.30                                                                                                    | Integral Attachments<br>Mechanical and<br>Hydraulic Snubbers | - - - - | - - | - - - - -             | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                       |
| D1.40                                                                                                    | Integral Attachments<br>Spring Type Supports<br>Spring       | M-1190  |     | SI-H6E                |                     | VT-3       |      |                    |   |   | /   |                             |                       |
| D1.50                                                                                                    | Integral Attachments<br>Constant Load Type<br>Supports       | - - - - | - - | - - - - -             | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                       |
| D1.60                                                                                                    | Integral Attachments<br>Shock Absorbers                      | - - - - | - - | - - - - -             | Not                 | Applicable |      | -                  | - | - | -   | - - - - -                   |                       |
| 1 - The identity number corresponds to the component support where the integral attachment can be found. |                                                              |         |     |                       |                     |            |      |                    |   |   |     |                             |                       |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Components Other Than Piping - CVC System

**Category:** D-A      **Description:** Systems in Support of Reactor Shutdown Function

| Item No. | Component Description                                        | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                  |
|----------|--------------------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|---------------------------|
|          |                                                              |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |                           |
| D1.20    | Integral Attachments<br>Component Supports                   |         |     |           |                     |            |      |                    |   |   |     |                             |                           |
|          | Four Attachments                                             | M-1217  |     | ATABA-1A  |                     |            | VT-3 |                    |   |   |     | E3-2                        | Boric acid filter         |
|          |                                                              |         |     | ATABA-1B  |                     |            | VT-3 |                    |   |   |     | E3-2                        | Boric acid filter         |
|          | Three Attachments                                            | M-1219  |     | AFBA      |                     |            | VT-3 |                    |   |   |     | E3-2                        | Boric acid filter         |
|          | Attachments                                                  | M-1235  |     | APBT-1A   |                     |            | VT-3 |                    |   |   |     | E3-2                        | Boric acid transfer pumps |
|          |                                                              |         |     | APBT-1B   |                     |            | VT-3 |                    |   |   |     | E3-2                        |                           |
| D1.30    | Integral Attachments<br>Mechanical and<br>Hydraulic Snubbers | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | - | - | -   | - - - - -                   |                           |
| D1.40    | Integral Attachments<br>Spring Type Supports                 | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | - | - | -   | - - - - -                   |                           |
| D1.50    | Integral Attachments<br>Constant Load Type<br>Supports       | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | - | - | -   | - - - - -                   |                           |
| C1.60    | Integral Attachments<br>Shock Absorbers                      | - - - - | - - | - - - - - | Not                 | Applicable | -    | -                  | - | - | -   | - - - - -                   |                           |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Components Other Than Piping - Service Water System

**Category:** D-A      **Description:** Systems in Support of Reactor Shutdown Function

| Item No. | Component Description                                         | Drawing | IE  | Identity               | Examination Methods |            |                  | Examination Period |   |   |     | Exemption or Relief Request | Comments |                                                                        |
|----------|---------------------------------------------------------------|---------|-----|------------------------|---------------------|------------|------------------|--------------------|---|---|-----|-----------------------------|----------|------------------------------------------------------------------------|
|          |                                                               |         |     |                        | Vol.                | Sur.       | Vis.             | 1                  | 2 | 3 | EOI |                             |          |                                                                        |
| D1.20    | Integral Attachments<br>Component Supports<br><br>Attachments | M-1225  |     | AHDG-1A<br><br>AHDG-1B |                     |            | VT-3<br><br>VT-3 |                    |   |   |     | /                           | E3-3     | Diesel generator cooling water heat exchanger and jacket water cooler. |
| D1.30    | Integral Attachments<br>Mechanical and<br>Hydraulic Snubbers  | - - - - | - - | - - - - -              | Not                 | Applicable | -                | -                  | - | - | -   | - - - - -                   |          |                                                                        |
| D1.40    | Integral Attachments<br>Spring Type Supports                  | - - - - | - - | - - - - -              | Not                 | Applicable | -                | -                  | - | - | -   | - - - - -                   |          |                                                                        |
| D1.50    | Integral Attachments<br>Constant Load Type<br>Supports        | - - - - | - - | - - - - -              | Not                 | Applicable | -                | -                  | - | - | -   | - - - - -                   |          |                                                                        |
| C1.60    | Integral Attachments<br>Shock Absorbers                       | - - - - | - - | - - - - -              | Not                 | Applicable | -                | -                  | - | - | -   | - - - - -                   |          |                                                                        |

CLASS 3

CATEGORY D-B

SYSTEMS IN SUPPORT OF EMERGENCY CORE COOLING,  
CONTAINMENT HEAT REMOVAL, AND REACTOR RESIDUAL HEAT REMOVAL

The Section XI item D2.10 - Pressure Retaining Components - is not included in this section since this item is for pressure tests of Class 3 components and is located in the section of this plan entitled Pressure Tests.

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Piping - Auxiliary Coolant System

## Piping Systems in Support of Emergency Core Cooling, Containment

Category: D-B

**Description:** Heat Removal, and Reactor Residual Heat Removal

| Item No.                                                                                                      | Component Description                                        | Drawing | IE  | Identity <sup>1</sup> | Examination Methods |            |      | Examination Period |   |   |         | Exemption or Relief Request | Comments              |
|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------|-----|-----------------------|---------------------|------------|------|--------------------|---|---|---------|-----------------------------|-----------------------|
|                                                                                                               |                                                              |         |     |                       | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI     |                             |                       |
| D2.20                                                                                                         | Integral Attachments<br>Component Supports<br>and Restraints |         |     |                       |                     |            |      |                    |   |   |         |                             |                       |
|                                                                                                               | Anchor                                                       | M-1182  |     | AC-H20                |                     |            | VT-3 |                    |   |   | /       |                             | Stanchion, 10" Sch 80 |
|                                                                                                               | Rigid                                                        |         |     | AC-H25                |                     |            | VT-3 |                    |   |   | /       |                             | Elbow lug 1/2" thick  |
|                                                                                                               | Welded Support                                               | M-1183  |     | AC-H2                 |                     |            | VT-3 |                    |   |   | /       |                             | Stanchion, 5" Sch 40  |
|                                                                                                               |                                                              |         |     | AC-H4                 |                     |            | VT-3 |                    |   |   | /       |                             | Stanchion, 5" Sch 40  |
|                                                                                                               | Sway & Strut<br>Restraint                                    |         |     | AC-H67                |                     |            | VT-3 |                    |   |   | /       |                             | Elbow lug 3/8" thick  |
|                                                                                                               | Welded Support                                               | M-1184  |     | AC-H3                 |                     |            | VT-3 |                    |   |   | /       |                             | Stanchion, 4" Sch 40  |
|                                                                                                               |                                                              |         |     | AC-H5                 |                     |            | VT-3 |                    |   |   | /       |                             | Stanchion, 4" Sch 40  |
|                                                                                                               | Welded Support<br>Rigid                                      |         |     | AC-H65                |                     |            | VT-3 |                    |   |   | /       |                             | Lugs 4" thick         |
| D2.30                                                                                                         | Integral Attachments<br>Mechanical and<br>Hydraulic Snubbers | - - - - | - - | - - - - -             | Not                 | Applicable | -    | -                  | - | - | - - - - | - - - - -                   |                       |
| <p>1 - The identity numbers correspond to the component support where the integral attachments are found.</p> |                                                              |         |     |                       |                     |            |      |                    |   |   |         |                             |                       |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Piping - Auxiliary Coolant System

**Category:** D-B **Description:** Piping Systems in Support of Emergency Core Cooling, Containment Heat Removal, and Reactor Residual Heat Removal

| Item No. | Component Description                                  | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |     |     |           | Exemption or Relief Request | Comments             |
|----------|--------------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|-----|-----|-----------|-----------------------------|----------------------|
|          |                                                        |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2   | 3   | EOI       |                             |                      |
|          | (Cont'd)                                               |         |     |           |                     |            |      |                    |     |     |           |                             |                      |
| D2.40    | Integral Attachments<br>Spring Type Supports           |         |     |           |                     |            |      |                    |     |     |           |                             |                      |
|          | Spring                                                 | M-1182  |     | AC-H64    |                     |            | VT-3 |                    |     |     | /         |                             | Lugs 5/8" thick      |
|          | Spring                                                 | M-1183  |     | AC-H17    |                     |            | VT-3 |                    |     |     | /         |                             | Elbow lug 5/8" thick |
|          |                                                        |         |     | AC-H22    |                     |            | VT-3 |                    |     |     | /         |                             | Elbow lug 1/2" thick |
| D2.50    | Integral Attachments<br>Constant Load Type<br>Supports | - - - - | - - | - - - - - | Not                 | Applicable | - -  | - -                | - - | - - | - - - - - | - - - - -                   |                      |
| D2.60    | Integral Attachments<br>Shock Absorbers                | - - - - | - - | - - - - - | Not                 | Applicable | - -  | - -                | - - | - - | - - - - - | - - - - -                   |                      |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Components Other Than Piping - Aux Coolant System

**Category:** D-B **Description:** Systems in Support of Emergency Core Cooling, Containment Heat Removal, and Reactor Residual Heat Removal

| Item No. | Component Description     | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                               |
|----------|---------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|----------------------------------------|
|          |                           |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                        |
| D2.20    | Integral Attachments      |         |    |          |                     |      |      |                    |   |   |     |                             |                                        |
|          | Component Supports        |         |    |          |                     |      |      |                    |   |   |     |                             |                                        |
|          | Four Attachments          | M-1218  |    | ATCS     |                     |      | VT-3 |                    |   |   | /   |                             | Component cooling surge tank           |
|          | Attachments               | M-1222  |    | AHCC-1A  |                     |      | VT-3 |                    |   |   | /   |                             | Component cooling heat exchanger       |
|          |                           |         |    | AHCC-1B  |                     |      | VT-3 |                    |   |   |     | E3-3                        |                                        |
|          | Attachments               | M-1224  |    | AHRS1-1A |                     |      | VT-3 |                    |   |   | /   |                             | Residual heat exchangers (shell side)  |
|          |                           |         |    | AHRS2-1B |                     |      | VT-3 |                    |   |   |     | E3-3                        |                                        |
|          | Upper Support Attachments | M-1226  |    | AHLD     |                     |      | VT-3 |                    |   |   | /   |                             | Letdown heat exchanger (shell side)    |
|          | Upper Support Attachments | M-1227  |    | AHSW     |                     |      | VT-3 |                    |   |   |     | E3-2                        | Seal water heat exchanger (shell side) |
|          | Attachments               | M-1229  |    | APRH1-1A |                     |      | VT-3 |                    |   |   | /   |                             | RHR pump shaft seal heat exchanger     |
|          |                           |         |    | APRH1-1B |                     |      | VT-3 |                    |   |   |     | E3-3                        |                                        |
|          | Attachments               | M-1234  |    | APCC-1A  |                     |      | VT-3 |                    |   |   | /   |                             | Component cooling pumps                |
|          |                           |         |    | APCC-1B  |                     |      | VT-3 |                    |   |   |     | E3-3                        |                                        |
|          | Attachments               | M-1237  |    | AHSC-1A  |                     |      | VT-3 |                    |   |   | /   |                             | SI pump seal coolers                   |
|          |                           |         |    | AHSC-1B  |                     |      | VT-3 |                    |   |   |     | E3-3                        |                                        |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Components Other Than Piping - Aux Coolant System

Systems in Support of Emergency Core Cooling, Containment

**Category:** D-B

**Description:** Heat Removal, and Reactor Residual Heat Removal

| Item No. | Component Description                                  | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |         | Exemption or Relief Request | Comments |
|----------|--------------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|---------|-----------------------------|----------|
|          |                                                        |         |     |           | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI     |                             |          |
|          | (Cont'd)                                               |         |     |           |                     |            |      |                    |   |   |         |                             |          |
| D2.30    | Integral Attachments Mechanical and Hydraulic Snubbers | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |
| D2.40    | Integral Attachments Spring Type Supports              | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |
| D2.50    | Integral Attachments Constant Load Type Supports       | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |
| D2.60    | Integral Attachments Shock Absorbers                   | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 3 - Components Other Than Piping - Containment Spray System

Systems in Support of Emergency Core Cooling, Containment

Category: D-B

Description: Heat Removal, and Reactor Residual Heat Removal

| Item No. | Component Description                                        | Drawing | IE  | Identity               | Examination Methods |      |                           | Examination Period |   |   |       | Exemption or Relief Request | Comments                                  |
|----------|--------------------------------------------------------------|---------|-----|------------------------|---------------------|------|---------------------------|--------------------|---|---|-------|-----------------------------|-------------------------------------------|
|          |                                                              |         |     |                        | Vol.                | Sur. | Vis.                      | 1                  | 2 | 3 | EOI   |                             |                                           |
| D2.20    | CIntegral Attachments<br>aComponent Supports                 | M-1233  |     | APCS-1A<br><br>APCS-1B |                     |      | V<br>T-3<br>V<br>T-3<br>V |                    |   |   | /     | E3-3                        | Containment spray pump gland seal coolers |
| D2.30    | Integral Attachments<br>Mechanical and<br>Hydraulic Snubbers | - - - - | - - | - - - - -              | Not                 | Appl | able                      | -                  | - | - | - - - | - - - - -                   |                                           |
| D2.40    | Integral Attachments<br>Spring Type Supports                 | - - - - | - - | - - - - -              | Not                 | Appl | able                      | -                  | - | - | - - - | - - - - -                   |                                           |
| D2.50    | Integral Attachments<br>Constant Load Type<br>Supports       | - - - - | - - | - - - - -              | Not                 | Appl | able                      | -                  | - | - | - - - | - - - - -                   |                                           |
| D2.60    | MIntegral Attachments<br>HShock Absorbers                    | - - - - | - - | - - - - -              | Not                 | Appl | able                      | -                  | - | - | - - - | - - - - -                   |                                           |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Piping - Service Water System

Category: D-B

**Description:** Systems in Support of Emergency Core Cooling, Containment Heat Removal, and Reactor Residual Heat Removal

| Item No.                                                                                                      | Component Description                                        | Drawing | IE  | Identity <sup>1</sup> | Examination Methods |            |      | Examination Period |   |   |     | Exemption or Relief Request | Comments              |
|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------|-----|-----------------------|---------------------|------------|------|--------------------|---|---|-----|-----------------------------|-----------------------|
|                                                                                                               |                                                              |         |     |                       | Vol.                | Sur.       | Vis. | 1                  | 2 | 3 | EOI |                             |                       |
| D2.20                                                                                                         | Integral Attachments<br>Component Supports<br>and Restraints |         |     |                       |                     |            |      |                    |   |   |     |                             |                       |
|                                                                                                               | Stanchion                                                    | M-1178  |     | SW-H153               |                     |            | VT-3 |                    |   |   | /   |                             | Elbow lug 1/2" thick  |
|                                                                                                               | Rigid                                                        | M-1185  |     | SW-H213               |                     |            | VT-3 |                    |   |   | /   |                             | Lug 3/8" thick        |
|                                                                                                               | Rigid                                                        | M-1187  |     | SW-H173               |                     |            | VT-3 |                    |   |   | /   |                             | Elbow lug 1/2" thick  |
|                                                                                                               | Rigid Support                                                |         |     | SW-H174               |                     |            | VT-3 |                    |   |   | /   |                             | Elbow lug 1/2" thick  |
|                                                                                                               | Anchor                                                       | M-1192  |     | SW-H210A              |                     |            | VT-3 |                    |   |   | /   |                             | Bent plate 1/2" thick |
| D2.30                                                                                                         | Integral Attachments<br>Mechanical and<br>Hydraulic Snubbers | - - - - | - - | - - - - -             | Not                 | Applicable | -    | -                  | - | - | -   | - - - - -                   |                       |
| D2.40                                                                                                         | Integral Attachments<br>Spring Type Supports                 | M-1181  |     | RSW-H18               |                     |            | VT-3 |                    |   |   | /   |                             | Lug 3/8" thick        |
| D2.50                                                                                                         | Integral Attachments<br>Constant Type Supports               | - - - - | - - | - - - - -             | Not                 | Applicable | -    | -                  | - | - | -   | - - - - -                   |                       |
| D2.60                                                                                                         | Integral Attachments<br>Shock Absorbers                      | - - - - | - - | - - - - -             | Not                 | Applicable | -    | -                  | - | - | -   | - - - - -                   |                       |
| 1 - The identification numbers correspond to the component supports where the integral attachments are found. |                                                              |         |     |                       |                     |            |      |                    |   |   |     |                             |                       |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Components Other Than Piping - Service Water System  
**Category:** D-B **Description:** Systems in Support of Emergency Core Cooling, Containment Heat Removal, and Reactor Residual Heat Removal

| Item No. | Component Description                                        | Drawing | IE  | Identity  | Examination Methods |            |         | Examination Period |     |     |     | Exemption or Relief Request | Comments                |
|----------|--------------------------------------------------------------|---------|-----|-----------|---------------------|------------|---------|--------------------|-----|-----|-----|-----------------------------|-------------------------|
|          |                                                              |         |     |           | Vol.                | Sur.       | Vis.    | 1                  | 2   | 3   | EOI |                             |                         |
| D2.20    | Integral Attachments<br>Component Supports                   |         |     |           |                     |            |         |                    |     |     |     |                             |                         |
|          | Four Attachments                                             | M-1220  |     | ASSW-1A1  |                     |            | VT-3    |                    |     |     | /   |                             | Service water strainers |
|          |                                                              |         |     | ASSW-1A2  |                     |            | VT-3    |                    |     |     |     | E3-3                        |                         |
|          |                                                              |         |     | ASSW-1B1  |                     |            | VT-3    |                    |     |     |     | E3-3                        |                         |
|          |                                                              |         |     | ASSW-1B2  |                     |            | VT-3    |                    |     |     |     | E3-3                        |                         |
|          | Attachments                                                  | M-1236  |     | APSW-1A1  |                     |            | VT-3    |                    |     |     | /   |                             | Service water pumps     |
|          |                                                              |         |     | APSW-1A2  |                     |            | VT-3    |                    |     |     |     | E3-3                        |                         |
|          |                                                              |         |     | APSW-1B1  |                     |            | VT-3    |                    |     |     |     | E3-3                        |                         |
|          |                                                              |         |     | APSW-1B2  |                     |            | VT-3    |                    |     |     |     | E3-3                        |                         |
|          | Base and Sling<br>Support Attachments                        | M-1239  |     | AHCF-1A   |                     |            | VT-3    |                    |     |     | /   |                             | Containment fan coolers |
|          |                                                              |         |     | AHCF-1B   |                     |            | VT-3    |                    |     |     |     | E3-3                        |                         |
|          |                                                              |         |     | AHCF-1C   |                     |            | VT-3    |                    |     |     |     | E3-3                        |                         |
|          |                                                              |         |     | AHCF-1D   |                     |            | VT-3    |                    |     |     |     | E3-3                        |                         |
| D2.30    | Integral Attachments<br>Mechanical and<br>Hydraulic Snubbers | - - - - | - - | - - - - - | Not                 | Applicable | - - - - | - -                | - - | - - | - - | - - - -                     |                         |
| D2.40    | Integral Attachments<br>Spring Type Supports                 | - - - - | - - | - - - - - | Not                 | Applicable | - - - - | - -                | - - | - - | - - | - - - -                     |                         |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Components Other Than Piping - Service Water System

**Category:** D-B **Description:** Systems in Support of Emergency Core Cooling, Containment Heat Removal, and Reactor Residual Heat Removal

| Item No. | Component Description                                  | Drawing | IE  | Identity  | Examination Methods |            |      | Examination Period |   |   |         | Exemption or Relief Request | Comments |
|----------|--------------------------------------------------------|---------|-----|-----------|---------------------|------------|------|--------------------|---|---|---------|-----------------------------|----------|
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|          | (Cont'd)                                               |         |     |           |                     |            |      |                    |   |   |         |                             |          |
| D2.50    | Integral Attachments<br>Constant Load Type<br>Supports | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |
| D2.60    | Integral Attachments<br>Shock Absorbers                | - - - - | - - | - - - - - | Not                 | Applicable |      | -                  | - | - | - - - - | - - - - -                   |          |

CLASS 3

CATEGORY D-C  
SYSTEMS IN SUPPORT OF RESIDUAL HEAT REMOVAL  
FROM SPENT FUEL STORAGE POOL

The Section XI item D3.10 - Pressure Retaining Components - is not included in this section since this item is for pressure tests of Class 3 components and is located in the section of this plan entitled Pressure Tests.

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Piping - Spent Fuel Pool Cooling

## Systems in Support of Residual Heat Removal

Category: D-C

**Description:** from Spent Fuel Storage Pool

| Item No.                                                                                                             | Component Description                                        | Drawing | IE | Identity <sup>1</sup> | Examination Methods |            |              | Examination Period |   |   |     | Exemption or Relief Request | Comments |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------|----|-----------------------|---------------------|------------|--------------|--------------------|---|---|-----|-----------------------------|----------|
|                                                                                                                      |                                                              |         |    |                       | Vol.                | Sur.       | Vis.         | 1                  | 2 | 3 | EOI |                             |          |
| D3.20                                                                                                                | Integral Attachments<br>Component Supports<br>and Restraints | M-1191  |    | SFP-H1<br>SFP-H4      |                     |            | VT-3<br>VT-3 |                    |   |   |     | E3-2<br>E3-2                |          |
| D3.30                                                                                                                | Integral Attachments<br>Mechanical and<br>Hydraulic Snubbers | - - - - | -  | - - - - -             | Not                 | Applicable | -            | -                  | - | - | -   | - - - - -                   |          |
| D3.40                                                                                                                | Integral Attachments<br>Spring Type Supports                 | - - - - | -  | - - - - -             | Not                 | Applicable | -            | -                  | - | - | -   | - - - - -                   |          |
| D3.50                                                                                                                | Integral Attachments<br>Constant Load Type<br>Supports       | - - - - | -  | - - - - -             | Not                 | Applicable | -            | -                  | - | - | -   | - - - - -                   |          |
| D3.60                                                                                                                | Integral Attachments<br>Shock Absorbers                      | - - - - | -  | - - - - -             | Not                 | Applicable | -            | -                  | - | - | -   | - - - - -                   |          |
| 1 - The identification numbers correspond to the component supports where the integral piping attachments are found. |                                                              |         |    |                       |                     |            |              |                    |   |   |     |                             |          |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 - Components Other Than Piping - Spent Fuel Pool Cooling and Cleanup

## Systems in Support of Residual Heat Removal

Category: D-C

**Description:** from Spent Fuel Storage Pool

| Item No. | Component Description                      | Drawing | IE | Identity | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                       |
|----------|--------------------------------------------|---------|----|----------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|--------------------------------|
|          |                                            |         |    |          | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                |
| D3.20    | Integral Attachments<br>Component Supports |         |    |          |                     |      |      |                    |   |   |     |                             |                                |
|          | Attachments                                | M-1223  |    | AHSF     |                     |      | VT-3 |                    |   |   |     | E3-2                        | Spent fuel pool heat exchanger |
|          | Attachments                                | M-1230  |    | APSF-1A  |                     |      | VT-3 |                    |   |   |     | E3-2                        | Spent fuel pool pumps          |
|          |                                            |         |    | APSF-1B  |                     |      | VT-3 |                    |   |   |     | E3-2                        |                                |

### SYSTEM PRESSURE TESTS

The pressure test portion of this plan has been divided by class since all pressure retaining components within the same class are subject to the same test requirements. A VT-2 examination is performed concurrent with this task. In addition, one time during the interval, on Class 2 and 3 lines that are 4" nominal pipe size and smaller but greater than 1" nominal pipe size, an augmented VT-2 examination will occur using a modified VT-2 examination procedure to include visual examination of pipe supports, anchors, and restraints. In addition to the normal VT-2 examination for leakage, this procedure shall require that all supports, anchors, and restraints be examined to verify that they are intact, properly connected to the pipe and to the building, as well as the integrity of intermediate attachments.

There are two types of drawing numbers referenced in the plan examination list sheets for pressure tests. The numbers prefixed with an 'M' such as M202 or M218 refer to the P&IDs Operation M202 and Operation M218. The drawing numbers which are not prefixed by an 'M' such as 10 or 32 refer to the P&IDs X-K100-10 and X-K100-32. See Table 1 for drawing number and system correspondence list.

TABLE 1

| <u>Number<br/>In Plan</u> | <u>Actual Drawing No.</u> | <u>System</u>                             |
|---------------------------|---------------------------|-------------------------------------------|
| 10                        | X-K100-10                 | Reactor Coolant                           |
| 18                        | X-K100-18                 | Auxiliary Coolant                         |
| 19                        | X-K100-19                 | Auxiliary Coolant                         |
| 20                        | X-K100-20                 | Auxiliary Coolant                         |
| 28                        | X-K100-28                 | Safety Injection                          |
| 29                        | X-K100-29                 | Safety Injection                          |
| 35                        | X-K100-35                 | Chemical and Volume Control               |
| 36                        | X-K100-36                 | Chemical and Volume Control               |
| 38                        | X-K100-38                 | Chemical and Volume Control               |
| 44                        | X-K100-44                 | Sampling                                  |
| 131                       | X-K100-131                | Waste Disposal                            |
| 132                       | X-K100-132                | Waste Disposal                            |
| M202                      | Operation M202            | Service Water                             |
| M203                      | Operation M203            | Main, Auxiliary Steam, Steam Dump         |
| M205                      | Operation M205            | Feedwater                                 |
| M208                      | Operation M208            | Fire Protection                           |
| M213                      | Operation M213            | Station and Instrument Air                |
| M214                      | Operation M214            | Chemical Injection                        |
| M217                      | Operation M217            | Containment Spray                         |
| M218                      | Operation M218            | Spent Fuel Cooling and Cleanup            |
| M403                      | Operation M403            | RB Vent, Post LOCA H <sub>2</sub> Control |
| M436                      | Operation M436            | Steam Generator Blowdown Treatment        |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 Systems

**Category:** B-P **Description:** Pressure Retaining Components

| Item No.                                                                                                                                                                                                                 | Component Description                                 | Drawing            | IE | Identity                    | Examination Methods |      |      | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------|----|-----------------------------|---------------------|------|------|--------------------|---|---|-----|-----------------------------|---------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                          |                                                       |                    |    |                             | Vol.                | Sur. | Vis. | 1                  | 2 | 3 | EOI |                             |                                                                                                               |
| B15.10<br>B15.20<br>B15.30<br>B15.40<br>B15.50<br>B15.60<br>B15.70                                                                                                                                                       | Pressure Retaining Boundary Leakage Test <sup>1</sup> | 10, 18, 28, 35, 34 |    | Class 1 Piping & Components |                     |      | VT-2 | /                  | / | / |     |                             | The hydrostatic test may be substituted for this pressure test in the period in which the hydro is performed. |
| <p>1 - ASME Section XI requires the Class 1 leakage test be performed prior to plant startup following each refueling outage. Since refueling outages occur each 12 months, the test frequency will be as indicated.</p> |                                                       |                    |    |                             |                     |      |      |                    |   |   |     |                             |                                                                                                               |

# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 1 Systems

**Category:** B-P **Description:** Pressure Retaining Components

| Item No.                                                                                                     | Component Description                          | Drawing            | IE | Identity                    | Examination Methods |      |                   | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                       |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------|----|-----------------------------|---------------------|------|-------------------|--------------------|---|---|-----|-----------------------------|----------------------------------------------------------------------------------------------------------------|
|                                                                                                              |                                                |                    |    |                             | Vol.                | Sur. | Vis.              | 1                  | 2 | 3 | EOI |                             |                                                                                                                |
| B15.11<br>B15.21<br>B15.31<br>B15.41<br>B15.51<br>B15.61<br>B15.71                                           | Pressure Retaining Components Hydrostatic Test | 10, 18, 28, 35, 34 |    | Class 1 Piping & Components |                     |      | VT-2 <sup>1</sup> |                    |   |   | /   |                             | This hydrostatic test may be substituted for this pressure test in the period in which the hydro is performed. |
| <p>1 - For 4" and under piping, see augmented examination requirements specified in pressure test notes.</p> |                                                |                    |    |                             |                     |      |                   |                    |   |   |     |                             |                                                                                                                |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 Systems

**Category:** C-H **Description:** Pressure Retaining Components

| Item No.                                                                                                     | Component Description                       | Drawing                                                                             | IE | Identity                    | Examination Methods |      |                   | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                   |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------|----|-----------------------------|---------------------|------|-------------------|--------------------|---|---|-----|-----------------------------|------------------------------------------------------------------------------------------------------------|
|                                                                                                              |                                             |                                                                                     |    |                             | Vol.                | Sur. | Vis.              | 1                  | 2 | 3 | EOI |                             |                                                                                                            |
| C7.30                                                                                                        | Pressure Retaining Components Pressure Test | 10, 18, 20, 28, 29, 35, 36, 44, 131, M203, M205, M208, M213, M214, M217, M403, M436 |    | Class 2 Piping & Components |                     |      | VT-2 <sup>1</sup> | /                  | / | / |     |                             | The hydrostatic test of C7.40 may be substituted for this test in the period which the hydro is performed. |
| <p>1 - For 4" and under piping, see augmented examination requirements specified in pressure test notes.</p> |                                             |                                                                                     |    |                             |                     |      |                   |                    |   |   |     |                             |                                                                                                            |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 2 Systems

**Category:** C-H **Description:** Pressure Retaining Components

| Item No.                                                                                              | Component Description                          | Drawing                                                                             | IE | Identity                    | Examination Methods |      |                   | Examination Period |   |   |     | Exemption or Relief Request | Comments |                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------|----|-----------------------------|---------------------|------|-------------------|--------------------|---|---|-----|-----------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                       |                                                |                                                                                     |    |                             | Vol.                | Sur. | Vis.              | 1                  | 2 | 3 | EOI |                             |          |                                                                                                                                                                                                                                      |
| C7.40                                                                                                 | Pressure Retaining Components Hydrostatic Test | 10, 18, 20, 28, 29, 35, 36, 44, 131, M203, M205, M208, M213, M214, M217, M403, M436 |    | Class 2 Piping & Components |                     |      | VT-2 <sup>1</sup> |                    |   |   |     | /                           | RR-2-4   | <p>This hydrostatic test may be substituted for the pressure test of C7.30 in the period in which this test is performed</p> <p>This relief request applies only to portions of Class 2 piping located near Class 1 connections.</p> |
| 1 - For 4" and under piping, see augmented examination requirements specified in pressure test notes. |                                                |                                                                                     |    |                             |                     |      |                   |                    |   |   |     |                             |          |                                                                                                                                                                                                                                      |

## KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

System: Class 3 Systems

**Category:** D-A, D-B, D-C      **Description:** Pressure Retaining Components

| Item No.                                                                                                     | Component Description                       | Drawing                                                         | IE | Identity                    | Examination Methods |      |                   | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                            |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------------------------------|----|-----------------------------|---------------------|------|-------------------|--------------------|---|---|-----|-----------------------------|---------------------------------------------------------------------------------------------------------------------|
|                                                                                                              |                                             |                                                                 |    |                             | Vol.                | Sur. | Vis.              | 1                  | 2 | 3 | EOI |                             |                                                                                                                     |
| D1.10<br>D2.10<br>D3.10                                                                                      | Pressure Retaining Components Pressure Test | 19, 20, 29, 35, 36, 38, 132, M202, M203, M205, M213, M214, M218 |    | Class 3 Piping & Components |                     |      | VT-2 <sup>1</sup> | /                  | / | / |     |                             | The hydrostatic test may be substituted for the system pressure test in the period in which the hydro is performed. |
| <p>1 - For 4" and under piping, see augmented examination requirements specified in pressure test notes.</p> |                                             |                                                                 |    |                             |                     |      |                   |                    |   |   |     |                             |                                                                                                                     |



# KEWAUNEE NUCLEAR POWER PLANT ISI EXAMINATION LIST

**System:** Class 3 Systems

**Category:** D-A, D-B, D-C      **Description:** Pressure Retaining Components

| Item No.                                                                                                     | Component Description                             | Drawing                                                                                    | IE | Identity                          | Examination Methods |      |                   | Examination Period |   |   |     | Exemption or Relief Request | Comments                                                                                                             |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------|----|-----------------------------------|---------------------|------|-------------------|--------------------|---|---|-----|-----------------------------|----------------------------------------------------------------------------------------------------------------------|
|                                                                                                              |                                                   |                                                                                            |    |                                   | Vol.                | Sur. | Vis.              | 1                  | 2 | 3 | EOI |                             |                                                                                                                      |
| D1.10<br>D2.10<br>D3.10                                                                                      | Pressure Retaining Components<br>Hydrostatic Test | 19, 20,<br>29, 35,<br>36, 38,<br>132,<br>M202,<br>M203,<br>M205,<br>M213,<br>M214,<br>M218 |    | Class 3<br>Piping &<br>Components |                     |      | VT-2 <sup>1</sup> |                    |   |   | /   |                             | This hydrostatic test may be substituted for the system pressure test in the period in which the hydro is performed. |
| <p>1 - For 4" and under piping, see augmented examination requirements specified in pressure test notes.</p> |                                                   |                                                                                            |    |                                   |                     |      |                   |                    |   |   |     |                             |                                                                                                                      |

CLASS 1, 2, AND 3

COMPONENT SUPPORTS  
F-A, F-B, AND F-C

It is the nuclear plant owners responsibility to develop a program that concentrates ISI attention on areas relevant to safety and reliability and minimizes examinations which are burdensome to the utility while providing an inconsequential gain in safety and reliability. Therefore, it is the owners responsibility to provide its own guidance where Section XI has not yet provided it. Such is the case with component support exemptions.

Since the Winter 1978 inception of Subsection IWF in Section XI, the exemptions found in Subarticle IWF-1230 have been in the course of preparation and still are as of the 1983 Code Edition. The NDE exemptions for safety class components are detailed in Section XI. Knowing that the purpose of both NDE and component support examinations are to ensure the continued integrity of pressure retaining components, these NDE exemptions were considered as a maximum which would not be exceeded in this plan for the component support program.

The Safety Class 1 requirements for examination are the most rigorous of any of the Section XI safety classes. The Code allows for the exemption of 1" nominal pipe size and smaller piping from the NDE requirements for Class 1 components. WPSC has applied this strict approach to the exemptions for component support examinations of Class 1, 2, and 3 pressure retaining components.

The scope of examinations for Class 1, 2, and 3 supports of the Kewaunee Nuclear Power Plant second 10-year ISI interval are described as follows.

Class 1

Subsection IWB states that piping 1" nominal pipe size and smaller (in addition to components and their connections in piping 1" nominal pipe size and smaller) are exempt from the NDE requirements of that subsection; therefore, all supports on piping/components greater than 1" nominal pipe size will be identified for examination in this plan.

Class 2

Subsection IWC allows pressure/temperature and system function type NDE exemptions in addition to allowing exemptions for component connections, piping, and associated valves and vessels that are 4" nominal pipe size and smaller. To further ensure the safe operation and reliability of the Kewaunee Nuclear Power Plant, WPSC has decided to increase the scope of examinations beyond that required by the Code for NDE to include the supports of all piping greater than 1" nominal pipe size.

Supports for component connections and piping for which NDE exemptions are allowable by the Code due to pressure/temperature and system function criteria will be examined and identified in the plan as any other support would be. Supports on piping greater than 1" nominal pipe size but equal to or less than 4" nominal pipe size will be examined during system pressure test walkdowns by means of augmented hydrotest procedures. See Pressure Test section.

Class 3

There are no NDE examinations in the Code for piping or components other than the integral attachments of pressure retaining components. The Code allowable NDE exemptions for these examinations are similar to those for Class 2 components; pressure/temperature exemptions and exemptions for 4" nominal pipe size components and smaller. The scope of examinations for Class 3 component supports will also be increased above that mandated by the Code to the same specifications for Class 2 components.

Multiple Stream Concept

Paragraph IWF-2510 of Section XI states that "for multiple components within a system of similar design, function, and service, the supports of only one of the multiple components are required to be examined." This area of relief was considered in the development of the plan, however, a minimal number of lines met the 'similar design' criteria because pipe routing and support locations were significantly different in the multiple loops.

Combination of F-A, F-B, and F-C

Since the Section XI examination requirements are the same for the IWF examination Categories F-A, F-B, and F-C, no distinction has been made in this plan by category.

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING     | IDENTITY | EXAMINATION |   |        |   |   |             |                                   | COMMENTS |
|------------------------|---------------------------|-------------|----------|-------------|---|--------|---|---|-------------|-----------------------------------|----------|
|                        |                           |             |          | METHOD      |   | PERIOD |   |   | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST |          |
|                        |                           |             |          | V           | T | 1      | 2 | 3 |             |                                   |          |
|                        |                           |             |          | 3           | 4 | S      | N | R |             |                                   |          |
|                        |                           |             |          |             |   |        |   |   |             |                                   |          |
| REACTOR VESSEL         | SUPPORT PAD:INLET LOOP A  | M-1194      | RV-CS1   | X           |   | /      |   |   |             |                                   |          |
| REACTOR VESSEL         | SUPPORT PAD:OUTLET LOOP A | M-1194      | RV-CS2   | X           |   |        |   | / |             |                                   |          |
| REACTOR VESSEL         | SUPPORT PAD:INLET LOOP B  | M-1194      | RV-CS3   | X           |   |        |   | / |             |                                   |          |
| REACTOR VESSEL         | SUPPORT PAD:OUTLET LOOP B | M-1194      | RV-CS4   | X           |   | /      |   |   |             |                                   |          |
| REACTOR VESSEL         | SUPPORT BRACKET 90DEG.    | M-1194      | RV-CS5   | X           |   |        |   | / |             |                                   |          |
| REACTOR VESSEL         | SUPPORT BRACKET 270DEG.   | M-1194      | RV-CS6   | X           |   | /      |   |   |             |                                   |          |
| STEAM GENERATOR A      | PAD WITH 6 HELICOILS      | X-K100-1381 | 22A      | X           |   | /      |   |   |             |                                   |          |
| STEAM GENERATOR A      | PAD WITH 6 HELICOILS      | X-K100-1381 | 22B      | X           |   | /      |   |   |             |                                   |          |
| STEAM GENERATOR A      | PAD WITH 6 HELICOILS      | X-K100-1381 | 22C      | X           |   |        |   | / |             |                                   |          |
| STEAM GENERATOR A      | PAD WITH 6 HELICOILS      | X-K100-1381 | 22D      | X           |   |        |   | / |             |                                   |          |
| STEAM GENERATOR B      | PAD WITH 6 HELICOILS      | X-K100-1381 | 22A      | X           |   |        |   |   |             | EF-1                              |          |
| STEAM GENERATOR B      | PAD WITH 6 HELICOILS      | X-K100-1381 | 22B      | X           |   |        |   |   |             | EF-1                              |          |
| STEAM GENERATOR B      | PAD WITH 6 HELICOILS      | X-K100-1381 | 22C      | X           |   |        |   |   |             | EF-1                              |          |
| STEAM GENERATOR B      | PAD WITH 6 HELICOILS      | X-K100-1381 | 22D      | X           |   |        |   |   |             | EF-1                              |          |
| PRESSURIZER            | VESSEL SKIRT              | M-1200      |          | X           |   |        |   | / |             |                                   |          |
| REACTOR COOLANT PUMP A | SUPPORT LEGS              | M-1204      | RCP-CS1  | X           |   | /      |   |   |             |                                   |          |
| REACTOR COOLANT PUMP A | SUPPORT LEGS              | M-1204      | RCP-CS2  | X           |   | /      |   |   |             |                                   |          |
| REACTOR COOLANT PUMP A | SUPPORT LEGS              | M-1204      | RCP-CS3  | X           |   |        |   | / |             |                                   |          |
| REACTOR COOLANT PUMP B | SUPPORT LEGS              | M-1204      | RCP-CS4  | X           |   |        |   |   |             | EF-1                              |          |
| REACTOR COOLANT PUMP B | SUPPORT LEGS              | M-1204      | RCP-CS5  | X           |   |        |   |   |             | EF-1                              |          |
| REACTOR COOLANT PUMP B | SUPPORT LEGS              | M-1204      | RCP-CS6  | X           |   |        |   |   |             | EF-1                              |          |

KEWAUNEE NUCLEAP POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY    | EXAMINATION |             |             |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS       |
|------------------------|---------------------------|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------------|
|                        |                           |         |             | METHOD      |             | PERIOD      |             |             |             |                                   |                |
|                        |                           |         |             | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |                |
|                        |                           |         |             | -           | -           | -           | -           | -           |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1145  | R-RHR-H2000 |             |             |             |             |             |             |                                   | 1ST PLAN 1R    |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1145  | R-RHR-H2001 |             |             |             |             |             |             |                                   | 1ST PLAN 2R    |
| PIPING                 | SPRING SUPPORT            | M-1145  | R-RHR-H1    | X           | X           |             | /           |             |             |                                   |                |
| PIPING                 | RIGID                     | M-1145  | R-RHR-H2    | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1145  | R-RHR-H120  |             |             |             |             |             |             |                                   |                |
| PIPING                 | RESTRAINT                 | M-1145  | R-RHR-H3    | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | RIGID                     | M-1145  | R-RHR-H4    | X           |             |             | /           |             |             |                                   |                |
| PIPING                 |                           | M-1145  | R-RHR-H2003 | X           |             |             | /           |             |             |                                   | LABELED 205WR  |
| PIPING                 | SPRING SUPPORT            | M-1145  | R-RHR-H21   | X           | X           | /           |             |             |             |                                   |                |
| PIPING                 | RIGID                     | M-1145  | R-RHR-H24   | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | RIGID                     | M-1152  | RHR-H2038   | X           |             |             | /           |             |             |                                   | 1ST PLAN 4R    |
| PIPING                 | RIGID                     | M-1152  | RHR-H2040   | X           |             |             | /           |             |             |                                   | 1ST PLAN 3R    |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1152  | RHR-H17     |             |             |             |             |             |             |                                   | SEE TECH SPECS |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1152  | RHR-H18     |             |             |             |             |             |             |                                   | SEE TECH SPECS |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1153  | R-RHR-H2041 |             |             |             |             |             |             |                                   | RR 370         |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1153  | R-RHR-H2042 |             |             |             |             |             |             |                                   | RR 365         |
| PIPING                 | SPRING SUPPORT            | M-1153  | R-RHR-H9    | X           | X           | /           |             |             |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1153  | R-RHR-H2043 |             |             |             |             |             |             |                                   | RR 351         |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1153  | R-RHR-H2044 |             |             |             |             |             |             |                                   | RR 348         |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1153  | R-RHR-H2045 |             |             |             |             |             |             |                                   | RR 340         |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1153  | R-RHR-H2046 |             |             |             |             |             |             |                                   | RR 300         |

KEWAUNEE NUCLEAP POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY    | EXAMINATION |             |             |             |             |   |   | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|------------------------|---------------------------|---------|-------------|-------------|-------------|-------------|-------------|-------------|---|---|-------------|-----------------------------------|----------|
|                        |                           |         |             | METHOD      |             | PERIOD      |             |             |   |   |             |                                   |          |
|                        |                           |         |             | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |   |   |             |                                   |          |
|                        |                           |         |             | -           | -           | -           | -           | -           | - | - |             |                                   |          |
| PIPING                 | RIGID                     | M-1153  | R-RHR-H8    | X           |             |             | /           |             |   |   |             |                                   |          |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1153  | R-RHR-H7    | X           |             |             |             | /           |   |   |             |                                   |          |
| PIPING                 | SPRING                    | M-1153  | R-RHR-H6    | X           | X           |             | /           |             |   |   |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1153  | R-RHR-H2047 |             |             |             |             |             |   |   |             | 1ST PLAN 14R                      |          |
| PIPING                 | WELDED SUPPORT            | M-1153  | R-RHR-H20   | X           |             | /           |             |             |   |   |             |                                   |          |
| PIPING                 | RIGID                     | M-1153  | R-RHR-H23   | X           |             | /           |             |             |   |   |             |                                   |          |
| PIPING                 | SPRING SUPPORT            | M-1153  | R-RHR-H22   | X           | X           | /           |             |             |   |   |             |                                   |          |
| PIPING                 | RIGID                     | M-1153  | R-RHR-H25   | X           |             | /           |             |             |   |   |             |                                   |          |
| PIPING                 | SPRING SUPPORT            | M-1144  | RSI-H14     | X           | X           |             |             | /           |   |   |             |                                   |          |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1144  | RSI-H14A    | X           |             |             |             | /           |   |   |             |                                   |          |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1144  | RSI-H14B    | X           |             |             |             | /           |   |   |             |                                   |          |
| PIPING                 | SUPPORT                   | M-1145  | RSI-H57     | X           |             |             |             | /           |   |   |             |                                   |          |
| PIPING                 | RIGID                     | M-1145  | RSI-H58     | X           |             | /           |             |             |   |   |             |                                   |          |
| PIPING                 | SUPPORT                   | M-1145  | RSI-H56     | X           |             |             | /           |             |   |   |             |                                   |          |
| PIPING                 |                           | M-1145  | RSI-H2004   | X           |             |             | /           |             |   |   |             | 3WS & 3R                          |          |
| PIPING                 |                           | M-1145  | RSI-H2005   | X           |             |             | /           |             |   |   |             | 2WS & 2R                          |          |
| PIPING                 | SUPPORT                   | M-1146  | RSI-H85     | X           |             | /           |             |             |   |   |             |                                   |          |
| PIPING                 | RESTRAINT                 | M-1146  | RSI-H62     | X           |             | /           |             |             |   |   |             |                                   |          |
| PIPING                 | RIGID                     | M-1146  | RSI-H65     | X           |             |             | /           |             |   |   |             |                                   |          |
| PIPING                 | RIGID                     | M-1146  | RSI-H41     | X           |             |             | /           |             |   |   |             |                                   |          |
| PIPING                 | SPRING                    | M-1146  | RSI-H40     | X           | X           | /           |             |             |   |   |             |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY   | EXAMINATION |             |             |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS       |
|------------------------|---------------------------|---------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------------|
|                        |                           |         |            | METHOD      |             | PERIOD      |             |             |             |                                   |                |
|                        |                           |         |            | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |                |
|                        |                           |         |            | -<br>-<br>- | -<br>-<br>- | -<br>-<br>- | -<br>-<br>- | -<br>-<br>- |             |                                   |                |
| PIPING                 | SPRING                    | M-1146  | RSI-H66    | X           | X           |             | /           |             |             |                                   |                |
| PIPING                 | ** HYDRO/RIGID SNUBBER ** | M-1146  | RSI-H63    |             |             |             |             |             |             |                                   | SEE TECH SPECS |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1146  | RSI-H67    |             |             |             |             |             |             |                                   | SEE TECH SPECS |
| PIPING                 | HANGER                    | M-1146  | RSI-H2007  | X           |             |             | /           |             |             |                                   | 1ST PLAN 7H    |
| PIPING                 | ANCHOR                    | M-1146  | RSI-H44    | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | SPRING SUPPORT            | M-1146  | RSI-H64    | X           | X           |             |             | /           |             |                                   |                |
| PIPING                 | SPRING SUPPORT            | M-1151  | PSI-H7     | X           | X           |             |             | /           |             |                                   |                |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1151  | RSI-H7A    | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1151  | RSI-H7B    | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1151  | RSI-H82    | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | RIGID                     | M-1152  | RHR-H19    | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | SPRING HANGER             | M-1154  | RSI-H77    | X           | X           |             |             | /           |             |                                   |                |
| PIPING                 | SUPPORT                   | M-1154  | RSI-H33    | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | RESTRAINT                 | M-1154  | RSI-H34    | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | FRT JJ1                   | M-1149  | RCVC-H2021 | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | GUIDE                     | M-1149  | RCVC-H2022 | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | PIPE CLAMP                | M-1149  | RCVC-H2023 | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | FRT JJ2                   | M-1149  | RCVC-H2024 | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | FRT G2                    | M-1149  | RCVC-H2025 | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | FRT JJ1                   | M-1149  | RCVC-H2026 | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1149  | RCVC-H2027 |             |             |             |             |             |             |                                   |                |



KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY   | EXAMINATION |             |             |             |             |  | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS       |
|------------------------|---------------------------|---------|------------|-------------|-------------|-------------|-------------|-------------|--|-------------|-----------------------------------|----------------|
|                        |                           |         |            | METHOD      |             | PERIOD      |             |             |  |             |                                   |                |
|                        |                           |         |            | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |  |             |                                   |                |
|                        |                           |         |            |             |             |             |             |             |  |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1150  | RCVC-H2028 |             |             |             |             |             |  |             |                                   |                |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1150  | RCVC-H36   |             |             |             |             |             |  |             |                                   | SEE TECH SPECS |
| PIPING                 | FRT-T                     | M-1150  | RCVC-H2029 | X           |             |             |             | /           |  |             |                                   |                |
| PIPING                 | FRT-JJ1                   | M-1150  | RCVC-H2030 | X           |             |             | /           |             |  |             |                                   |                |
| PIPING                 | FRT-G2                    | M-1150  | RCVC-H2031 | X           |             |             | /           |             |  |             |                                   |                |
| PIPING                 | FRT-G2                    | M-1150  | RCVC-H2032 | X           |             |             | /           |             |  |             |                                   |                |
| PIPING                 | FRT-G2                    | M-1150  | RCVC-H2033 | X           |             |             | /           |             |  |             |                                   |                |
| PIPING                 | FRT-JJ1                   | M-1150  | RCVC-H2034 | X           |             |             | /           |             |  |             |                                   |                |
| PIPING                 | FRT-AA                    | M-1150  | RCVC-H2035 | X           |             |             | /           |             |  |             |                                   |                |
| PIPING                 | FRT-JJ1                   | M-1150  | RCVC-H2036 | X           |             |             | /           |             |  |             |                                   |                |
| PIPING                 | FRT-J1                    | M-1150  | RCVC-H2037 | X           |             |             | /           |             |  |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1158  | RCVC-H2072 |             |             |             |             |             |  |             |                                   | 13ECVCS-2      |
| PIPING                 | GUIDE                     | M-1158  | RCVC-H2073 | X           |             |             | /           |             |  |             |                                   |                |
| PIPING                 | FRT-G2                    | M-1158  | RCVC-H2074 | X           |             |             | /           |             |  |             |                                   | 10200          |
| PIPING                 | FRT-JJ1                   | M-1158  | RCVC-H2075 | X           |             |             | /           |             |  |             |                                   | 10190          |
| PIPING                 | FRT-G2                    | M-1158  | RCVC-H2076 | X           |             |             | /           |             |  |             |                                   | 10170          |
| PIPING                 | FRT-JJ3                   | M-1158  | RCVC-H2077 | X           |             |             | /           |             |  |             |                                   | 10142          |
| PIPING                 |                           | M-1158  | RCVC-H2078 | X           |             |             | /           |             |  |             |                                   |                |
| PIPING                 | FRT-J1                    | M-1158  | RCVC-H2079 | X           |             |             | /           |             |  |             |                                   | 10135          |
| PIPING                 | FRT-JJ2                   | M-1158  | RCVC-H2081 | X           |             | /           |             |             |  |             |                                   | 10105          |
| PIPING                 | FRT-JJ1                   | M-1158  | RCVC-H2082 | X           |             | /           |             |             |  |             |                                   | PT 10075       |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

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| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY   | EXAMINATION |             |             |             |             |             |                                   |                |  | COMMENTS |
|------------------------|---------------------------|---------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------------|--|----------|
|                        |                           |         |            | METHOD      |             | PERIOD      |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST |                |  |          |
|                        |                           |         |            | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |                |  |          |
|                        |                           |         |            | -           | -           | -           | -           | -           |             |                                   |                |  |          |
| PIPING                 |                           | M-1158  | RCVC-H2083 | X           |             |             |             |             | /           |                                   | PT 10075       |  |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1158  | RCVC-H2193 |             |             |             |             |             |             |                                   | 13E-CVCS-3     |  |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1158  | RCVC-H2071 |             |             |             |             |             |             |                                   | 13ECVCS-1      |  |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1156  | RCVC-H2055 |             |             |             |             |             |             |                                   | 109-CVCS-2     |  |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1156  | RCVC-H2056 |             |             |             |             |             |             |                                   | 109-CVCS-1     |  |          |
| PIPING                 | FRT-G2                    | M-1156  | RCVC-H2058 | X           |             |             |             | /           |             |                                   | 6210           |  |          |
| PIPING                 | FRT-JJ2                   | M-1156  | RCVC-H2059 | X           |             |             | /           |             |             |                                   | 6216           |  |          |
| PIPING                 | FRT-J1                    | M-1156  | RCVC-H2060 | X           |             |             | /           |             |             |                                   | 6217           |  |          |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1156  | RCVC-H34   |             |             |             |             |             |             |                                   | SEE TECH SPECS |  |          |
| PIPING                 | FRT-G2                    | M-1156  | RCVC-H2061 | X           |             |             | /           |             |             |                                   | 6265           |  |          |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1156  | RCVC-H33B  |             |             |             |             |             |             |                                   | SEE TECH SPECS |  |          |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1156  | RCVC-H33A  |             |             |             |             |             |             |                                   | SEE TECH SPECS |  |          |
| PIPING                 | FRT-J2                    | M-1156  | RCVC-H2062 | X           |             |             | /           |             |             |                                   | 6345           |  |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1163  | CVC-H2105  |             |             |             |             |             |             |                                   | 114-CVCS-2     |  |          |
| PIPING                 | FRT-G2                    | M-1163  | CVC-H2107  | X           |             |             | /           |             |             |                                   | 1350           |  |          |
| PIPING                 | FRT-KK3                   | M-1163  | CVC-H2108  | X           |             |             | /           |             |             |                                   | 1300           |  |          |
| PIPING                 | FRT-B1                    | M-1163  | CVC-H2109  | X           |             |             | /           |             |             |                                   | 1295           |  |          |
| PIPING                 | FRT-JJ2                   | M-1163  | CVC-H2110  | X           |             |             | /           |             |             |                                   | 1285           |  |          |
| PIPING                 | FRT-D1                    | M-1163  | CVC-H2111  | X           |             |             | /           |             |             |                                   | 1270           |  |          |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1163  | RCVC-H35   |             |             |             |             |             |             |                                   | SEE TECH SPECS |  |          |
| PIPING                 | CONSTANT SUPPORT          | M-1163  | CVC-H40    | X           |             |             |             | /           |             |                                   | 1215           |  |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY   | EXAMINATION |             |             |             |             |             |                                   | COMMENTS |
|------------------------|---------------------------|---------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------|
|                        |                           |         |            | METHOD      |             | PERIOD      |             |             | E<br>O<br>I | EXEMPTION<br>OF RELIEF<br>REQUEST |          |
|                        |                           |         |            | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |          |
|                        |                           |         |            | -           | -           | -           | -           | -           |             |                                   |          |
| PIPING                 | FRT-G2                    | M-1163  | CVC-H2112  | X           |             |             |             | /           |             | 1205                              |          |
| EXCESS LETDOWN HXGR 1A |                           |         |            |             |             |             |             |             |             |                                   |          |
| EXCESS LETDOWN HXGR 1B |                           |         |            |             |             |             |             |             |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1157  | RCVC-H2066 |             |             |             |             |             |             | 105-CVCS-3                        |          |
| PIPING                 | FRT-G2                    | M-1157  | RCVC-H2067 | X           |             | /           |             |             |             | 7165                              |          |
| PIPING                 |                           | M-1157  | RCVC-H32   | X           |             |             | /           |             |             | 7155                              |          |
| PIPING                 | FRT-T                     | M-1157  | RCVC-H2068 | X           |             |             |             | /           |             | 7140                              |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1157  | RCVC-H2069 |             |             |             |             |             |             | 105-CVCS-2                        |          |
| PIPING                 | FRT-T                     | M-1157  | RCVC-H2070 | X           |             |             | /           |             |             | 7115                              |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1159  | RC-H2084   |             |             |             |             |             |             | 134-1                             |          |
| PIPING                 |                           | M-1159  | RC-H2085   | X           |             |             | /           |             |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1159  | RC-H2086   |             |             |             |             |             |             | 134-2                             |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1159  | RC-H2087   |             |             |             |             |             |             | 134-3                             |          |
| PIPING                 |                           | M-1159  | RC-H2088   | X           |             |             |             | /           |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1159  | RC-H2089   |             |             |             |             |             |             | 134-4                             |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1159  | RC-H2090   |             |             |             |             |             |             | 134-5                             |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1159  | RC-H2091   |             |             |             |             |             |             | 134-6                             |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1159  | RC-H2092   |             |             |             |             |             |             | 134-7                             |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1159  | RC-H2093   |             |             |             |             |             |             | 134-8                             |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1159  | RC-H2094   |             |             |             |             |             |             | 134-9                             |          |
| PIPING                 | SPRING HANGER             | M-1159  | RC-H12     | X           | X           | /           |             |             |             |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
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CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY | EXAMINATION |             |             |             |             |   |   | E<br>O<br>I | EXEMPTION<br>OF RELIEF<br>REQUEST | COMMENTS |
|------------------------|---------------------------|---------|----------|-------------|-------------|-------------|-------------|-------------|---|---|-------------|-----------------------------------|----------|
|                        |                           |         |          | METHOD      |             | PERIOD      |             |             |   |   |             |                                   |          |
|                        |                           |         |          | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |   |   |             |                                   |          |
|                        |                           |         |          | -           | -           | -           | -           | -           | - | - |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1159  | RC-H11   | X           | X           |             | /           |             |   |   |             |                                   |          |
| PIPING                 |                           | M-1159  | RC-H2095 | X           |             |             |             | /           |   |   |             | 274-20                            |          |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1160  | RC-H9    | X           |             |             |             | /           |   |   |             |                                   |          |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1160  | RC-H8    | X           |             |             |             | /           |   |   |             |                                   |          |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1161  | RC-H16   | X           |             | /           |             |             |   |   |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1161  | RC-H2098 |             |             |             |             |             |   |   |             | RC-15                             |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1161  | RC-H2097 |             |             |             |             |             |   |   |             | RC-9                              |          |
| PIPING                 | WELDED SUPPORT            | M-1161  | RC-H14   | X           |             | /           |             |             |   |   |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1161  | RC-H2096 |             |             |             |             |             |   |   |             | RC-7                              |          |
| PIPING                 | SPRING SUPPORT            | M-1161  | RC-H13   | X           | X           | /           |             |             |   |   |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1161  | RC-H2196 |             |             |             |             |             |   |   |             | RC-12                             |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1161  | RC-H2195 |             |             |             |             |             |   |   |             | RC-8                              |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1161  | RC-H2194 |             |             |             |             |             |   |   |             | RC-7B                             |          |
| PIPING                 | SRING SUPPORT             | M-1161  | RC-H15   | X           | X           | /           |             |             |   |   |             |                                   |          |
| PIPING                 | SPRING SUPPORT            | M-1161  | RC-H17   | X           | X           |             |             | /           |   |   |             |                                   |          |
| PIPING                 | SRING SUPPORT             | M-1161  | RC-H18   | X           | X           |             |             | /           |   |   |             |                                   |          |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1161  | RC-H19   | X           |             |             |             | /           |   |   |             |                                   |          |
| PIPING                 | SPEING HANGER             | M-1161  | RC-H20   | X           | X           |             |             | /           |   |   |             |                                   |          |
| PIPING                 | RIGID RESTRAINT           | M-1161  | RC-H21   | X           |             |             |             | /           |   |   |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1161  | RC-H2099 |             |             |             |             |             |   |   |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1162  | RC-H2100 |             |             |             |             |             |   |   |             | RC-17                             |          |

KEWAUNEE NUCLEAR POWER PLANT  
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CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY | EXAMINATION |             |             |             |             |  | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|------------------------|---------------------------|---------|----------|-------------|-------------|-------------|-------------|-------------|--|-------------|-----------------------------------|----------|
|                        |                           |         |          | METHOD      |             | PERIOD      |             |             |  |             |                                   |          |
|                        |                           |         |          | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |  |             |                                   |          |
| PIPING                 | SPRING                    | M-1162  | RC-H36   | X           | X           | /           |             |             |  |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1162  | RC-H2101 |             |             |             |             |             |  |             | RC-18                             |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1162  | RC-H2102 |             |             |             |             |             |  |             | RC-20                             |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1162  | RC-H2103 |             |             |             |             |             |  |             | RC-19                             |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1162  | RC-H2104 |             |             |             |             |             |  |             | RC-22                             |          |
| PIPING                 | RIGID RESTRAINT           | M-1162  | RC-H35   | X           |             | /           |             |             |  |             |                                   |          |
| PIPING                 | RIGID SUPPORT             | M-1162  | RC-H33   | X           |             | /           |             |             |  |             |                                   |          |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1162  | RC-H34   | X           |             | /           |             |             |  |             |                                   |          |
| PIPING                 | SPRING                    | M-1162  | RC-H32   | X           | X           | /           |             |             |  |             |                                   |          |
| PIPING                 | RIGID                     | M-1162  | RC-H31   | X           |             |             |             | /           |  |             |                                   |          |
| PIPING                 | X-Z RESTRAINT             | M-1162  | RC-H30   | X           |             |             |             | /           |  |             |                                   |          |
| PIPING                 | RIGID HANGER              | M-1162  | RC-H29   | X           |             | /           |             |             |  |             |                                   |          |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1162  | RC-H29A  |             |             |             |             |             |  |             | SEE TECH SPECS                    |          |
| PIPING                 | RIGID HANGER              | M-1162  | RC-H28   | X           |             |             |             | /           |  |             |                                   |          |
| PIPING                 | WELDED SUPPORT            | M-1162  | RC-H27   | X           |             | /           |             |             |  |             |                                   |          |
| PIPING                 | RESTRAINT                 | M-1162  | RC-H26   | X           |             |             |             | /           |  |             |                                   |          |
| PIPING                 | SPRING SUPPORT            | M-1162  | RC-H25   | X           | X           |             |             | /           |  |             |                                   |          |
| PIPING                 | RESTRAINT                 | M-1162  | RC-H24   | X           |             | /           |             |             |  |             |                                   |          |
| PIPING                 | SPRING SUPPORT            | M-1162  | RC-H23   | X           | X           | /           |             |             |  |             |                                   |          |
| PIPING                 | SPRING SUPPORT            | M-1162  | RC-H22   | X           | X           | /           |             |             |  |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1147  | RTD-H4   | X           | X           | /           |             |             |  |             |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
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CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY  | EXAMINATION |   |        |   |   | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS       |
|------------------------|---------------------------|---------|-----------|-------------|---|--------|---|---|-------------|-----------------------------------|----------------|
|                        |                           |         |           | METHOD      |   | PERIOD |   |   |             |                                   |                |
|                        |                           |         |           | V           | V | 1      | 2 | 3 |             |                                   |                |
|                        |                           |         |           | T           | T | S      | N | R |             |                                   |                |
| 3                      | 4                         | T       | D         | D           | - | -      | - | - | -           | -                                 |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1147  | RTD-H2012 |             |   |        |   |   |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1147  | RTD-H2013 |             |   |        |   |   |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1147  | RTD-H2014 |             |   |        |   |   |             |                                   |                |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1147  | RTD-H2    |             |   |        |   |   |             |                                   | SEE TECH SPECS |
| PIPING                 | SPRING HANGER             | M-1147  | RTD-H1    | X           | X |        |   | / |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1147  | RTD-H2015 |             |   |        |   |   |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1147  | RTD-H2016 |             |   |        |   |   |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1155  | RTD-H2051 |             |   |        |   |   |             |                                   | 137-1          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1155  | RTD-H2052 |             |   |        |   |   |             |                                   | 137-2          |
| PIPING                 | SPRING HANGER             | M-1155  | RTD-H9    | X           |   | /      |   |   |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1155  | RTD-H2053 |             |   |        |   |   |             |                                   | 137-3          |
| PIPING                 | SPRING HANGER             | M-1155  | RTD-H8    | X           | X |        |   | / |             |                                   |                |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1155  | RTD-H7    |             |   |        |   |   |             |                                   | SEE TECH SPECS |
| PIPING                 | SPRING HANGER             | M-1155  | RTD-H12   | X           | X |        |   | / |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1155  | RTD-H2048 |             |   |        |   |   |             |                                   | 137-7          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1155  | RTD-H2049 |             |   |        |   |   |             |                                   | 137-6          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1155  | RTD-H2050 |             |   |        |   |   |             |                                   | 137-5          |
| PIPING                 | RIGID                     | M-1155  | RTD-H11   | X           |   |        |   | / |             |                                   |                |
| PIPING                 | GUIDE                     | M-1155  | RTD-H10   | X           |   |        |   | / |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1155  | RTD-H2054 |             |   |        |   |   |             |                                   | 137-4          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1148  | RTD-H2017 |             |   |        |   |   |             |                                   |                |

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CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY   | EXAMINATION |   |        |   |   |  | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|------------------------|---------------------------|---------|------------|-------------|---|--------|---|---|--|-------------|-----------------------------------|----------|
|                        |                           |         |            | METHOD      |   | PERIOD |   |   |  |             |                                   |          |
|                        |                           |         |            | V           | V | 1      | 2 | 3 |  |             |                                   |          |
|                        |                           |         |            | T           | T | S      | N | R |  |             |                                   |          |
| 3                      | 4                         | T       | D          | D           |   |        |   |   |  |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1148  | RTD-H2018  |             |   |        |   |   |  |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1148  | RTD-H2019  |             |   |        |   |   |  |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1148  | RTD-H2020  |             |   |        |   |   |  |             |                                   |          |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1148  | RTD-H6     |             |   |        |   |   |  |             | SEE TECH SPECS                    |          |
| PIPING                 | SPRING HANGER             | M-1148  | RTD-H5     | X           | X |        |   | / |  |             |                                   |          |
| PIPING                 | SPEING HANGER             | M-1148  | RTD-H3     | X           | X |        |   | / |  |             |                                   |          |
| PIPING                 |                           | M-1147  | CVC-H2008  | X           |   | /      |   |   |  |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1147  | CVC-H2009  |             |   |        |   |   |  |             | 106-CVCS-2                        |          |
| PIPING                 | FRT-G2                    | M-1147  | CVC-H2010  | X           |   | /      |   |   |  |             | PT 12115                          |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1147  | CVC-H2011  |             |   |        |   |   |  |             |                                   |          |
| PIPING                 | FRI-G2                    | M-1157  | RCVC-H2064 | X           |   | /      |   |   |  |             | PT 7192                           |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1157  | RCVC-H2063 |             |   |        |   |   |  |             | 107-CVCS-1                        |          |
| PIPING                 | RIGID                     | M-1166  | PDW-H16A   | X           |   | /      |   |   |  |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1166  | PDW-H2122  |             |   |        |   |   |  |             | 1221                              |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1166  | PDW-H2123  |             |   |        |   |   |  |             | 1245                              |          |
| PIPING                 | ANCHOR ELBOW              | M-1166  | PDW-H2124  | X           |   | /      |   |   |  |             | 1251                              |          |
| PIPING                 | GUIDE IN FLOOR OPENING    | M-1166  | PDW-H2125  | X           |   | /      |   |   |  |             | 1255 HAS LUGS                     |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1166  | PDW-H2126  |             |   |        |   |   |  |             | 2001                              |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1166  | PDW-H2127  |             |   |        |   |   |  |             | 2010                              |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1166  | PDW-H116   |             |   |        |   |   |  |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1166  | PDW-H2129  |             |   |        |   |   |  |             |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
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CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY  | EXAMINATION |   |        |   |   |  |      | E<br>O<br>I | EXEMPTION<br>OF RELIEF<br>REQUEST | COMMENTS |
|------------------------|---------------------------|---------|-----------|-------------|---|--------|---|---|--|------|-------------|-----------------------------------|----------|
|                        |                           |         |           | METHOD      |   | PERIOD |   |   |  |      |             |                                   |          |
|                        |                           |         |           | V           | V | 1      | 2 | 3 |  |      |             |                                   |          |
|                        |                           |         |           | T           | T | S      | N | R |  |      |             |                                   |          |
|                        |                           |         |           | 3           | 4 | T      | D | D |  |      |             |                                   |          |
| PIPING                 | GUIDE IN FLOOR OPENING    | M-1166  | FDW-H2130 | X           |   | /      |   |   |  |      | HAS LUGS    |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1166  | FDW-H2131 |             |   |        |   |   |  |      |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1166  | FDW-H2132 |             |   |        |   |   |  |      |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1168  | FDW-H2142 |             |   |        |   |   |  | EF-1 | 961         |                                   |          |
| PIPING                 |                           | M-1168  | FDW-H2143 | X           |   |        |   |   |  | EF-1 |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1168  | FDW-H2144 |             |   |        |   |   |  | EF-1 |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1168  | FDW-H2145 |             |   |        |   |   |  | EF-1 |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1168  | FDW-H2146 |             |   |        |   |   |  | EF-1 |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1168  | FDW-H2147 |             |   |        |   |   |  | EF-1 |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1168  | FDW-H2148 |             |   |        |   |   |  | EF-1 |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1168  | FDW-H2149 |             |   |        |   |   |  | EF-1 |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1168  | FDW-H2150 |             |   |        |   |   |  | EF-1 |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1168  | FDW-H2141 |             |   |        |   |   |  | EF-1 | 951         |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1169  | RHR-H2151 |             |   |        |   |   |  |      | 225         |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1169  | RHR-H2152 |             |   |        |   |   |  |      | 410         |                                   |          |
| PIPING                 | SPRING HANGER             | M-1169  | R-RHR-H10 | X           | X | /      |   |   |  |      |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1169  | R-RHR-H11 | X           | X | /      |   |   |  |      |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1169  | RHR-H2153 |             |   |        |   |   |  |      | 495         |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1169  | RHR-H2154 |             |   |        |   |   |  |      | 511         |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1169  | RHR-H2155 |             |   |        |   |   |  |      | 525         |                                   |          |
| PIPING                 | SPRING                    | M-1169  | RHR-H26   | X           | X | /      |   |   |  |      |             |                                   |          |



KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY  | EXAMINATION |        |        |        |        |  | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|------------------------|---------------------------|---------|-----------|-------------|--------|--------|--------|--------|--|-------------|-----------------------------------|----------|
|                        |                           |         |           | METHOD      |        | PERIOD |        |        |  |             |                                   |          |
|                        |                           |         |           | V<br>T      | V<br>T | 1<br>S | 2<br>N | 3<br>R |  |             |                                   |          |
|                        |                           |         |           | 3           | 4      | T      | D      | D      |  |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1170  | RHR-H38   | X           | X      |        | /      |        |  |             |                                   |          |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1170  | RHR-H38A  |             |        |        |        |        |  |             | SEE TECH SPECS                    |          |
| PIPING                 | SPRING HANGER             | M-1170  | RHR-H42   | X           | X      |        | /      |        |  |             |                                   |          |
| PIPING                 | RESTRAINT                 | M-1170  | RHR-H23   | X           |        |        | /      |        |  |             |                                   |          |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1170  | RHR-H41A  |             |        |        |        |        |  |             | SEE TECH SPECS                    |          |
| PIPING                 | SPRING HANGER             | M-1170  | RHR-H41   | X           | X      | /      |        |        |  |             |                                   |          |
| PIPING                 | SPRING SUPPORT            | M-1170  | RHR-H27   | X           | X      | /      |        |        |  |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1171  | RHR-H35   | X           | X      | /      |        |        |  |             |                                   |          |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1171  | RHR-H35A  |             |        |        |        |        |  |             | SEE TECH SPECS                    |          |
| PIPING                 | RIGID                     | M-1171  | RHR-H39   | X           |        |        |        | /      |  |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1171  | RHR-H40   | X           | X      | /      |        |        |  |             |                                   |          |
| PIPING                 | SPRING SUPPORT            | M-1171  | RHR-H28   | X           | X      | /      |        |        |  |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1171  | RHR-H25   | X           | X      | /      |        |        |  |             |                                   |          |
| PIPING                 | RESTRAINT                 | M-1171  | RHR-H25A  | X           |        | /      |        |        |  |             |                                   |          |
| PIPING                 |                           | M-1172  | RHR-H2158 | X           |        | /      |        |        |  |             | 735                               |          |
| PIPING                 | RESTRAINT                 | M-1172  | RHR-H33A  | X           |        | /      |        |        |  |             |                                   |          |
| PIPING                 | ANCHOR                    | M-1172  | RHR-H33   | X           |        | /      |        |        |  |             |                                   |          |
| PIPING                 | SPRING                    | M-1172  | RHR-H18   | X           | X      | /      |        |        |  |             |                                   |          |
| PIPING                 | SPRING                    | M-1172  | RHR-H17   | X           | X      | /      |        |        |  |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1172  | RHR-H6    | X           | X      |        | /      |        |  |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1172  | RHR-H36   | X           | X      |        | /      |        |  |             |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

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| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY  | EXAMINATION |             |             |             |             |   | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|------------------------|---------------------------|---------|-----------|-------------|-------------|-------------|-------------|-------------|---|-------------|-----------------------------------|----------|
|                        |                           |         |           | METHOD      |             | PERIOD      |             |             |   |             |                                   |          |
|                        |                           |         |           | V<br>T<br>J | V<br>T<br>J | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |   |             |                                   |          |
|                        |                           |         |           |             |             |             |             |             |   |             |                                   |          |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1172  | RHR-H36A  | -           | -           | -           | -           | -           | - | -           | SEE TECH SPECS                    |          |
| PIPING                 | SPRING HANGER             | M-1172  | RHR-H35   | X           | X           |             | /           |             |   |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1172  | RHR-H2157 |             |             |             |             |             |   |             | 1330                              |          |
| PIPING                 | RESTRAINT                 | M-1172  | RHR-H34A  | X           |             |             | /           |             |   |             |                                   |          |
| PIPING                 | ANCHOR                    | M-1172  | RHR-H34   | X           |             |             | /           |             |   |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1172  | RHR-H24   | X           | X           |             | /           |             |   |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1172  | RHR-H22   | X           | X           |             | /           |             |   |             |                                   |          |
| PIPING                 | SPRING                    | M-1172  | RHR-H19   | X           | X           |             |             | /           |   |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1173  | RHR-H10   | X           | X           | /           |             |             |   |             |                                   |          |
| PIPING                 | RESTRAINT                 | M-1173  | RHR-H53   | X           |             | /           |             |             |   |             |                                   |          |
| PIPING                 | RESTRAINT                 | M-1173  | RHR-H51   | X           |             | /           |             |             |   |             |                                   |          |
| PIPING                 | WELDED SUPPORT            | M-1173  | RHR-H29   | X           |             | /           |             |             |   |             |                                   |          |
| PIPING                 | SPRING HANGER             | M-1173  | RHR-H11   | X           | X           | /           |             |             |   |             |                                   |          |
| PIPING                 | RESTRAINT                 | M-1173  | RHR-H52   | X           |             | /           |             |             |   |             |                                   |          |
| PIPING                 | RESTRAINT                 | M-1173  | RHR-H50   | X           |             | /           |             |             |   |             |                                   |          |
| PIPING                 | SPRING SUPPORT            | M-1173  | RHR-H30   | X           | X           | /           |             |             |   |             |                                   |          |
| PIPING                 | SPRING SUPPORT            | M-1173  | RHR-H44   | X           | X           |             | /           |             |   |             |                                   |          |
| PIPING                 | RIGID                     | M-1173  | RHR-H9    | X           |             |             | /           |             |   |             |                                   |          |
| PIPING                 | RESTRAINT                 | M-1173  | RHR-H9A   | X           |             |             | /           |             |   |             |                                   |          |
| PIPING                 | SPRING SUPPORT            | M-1173  | RHR-H13   | X           | X           |             | /           |             |   |             |                                   |          |
| PIPING                 | ANCHOR                    | M-1173  | RHR-H48   | X           |             |             | /           |             |   |             |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY  | EXAMINATION |             |             |             |             |  | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS       |
|------------------------|---------------------------|---------|-----------|-------------|-------------|-------------|-------------|-------------|--|-------------|-----------------------------------|----------------|
|                        |                           |         |           | METHOD      |             | PERIOD      |             |             |  |             |                                   |                |
|                        |                           |         |           | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |  |             |                                   |                |
|                        |                           |         |           | -           | -           | -           | -           | -           |  |             |                                   |                |
| PIPING                 | ANCHOR                    | M-1173  | RHR-H2161 | X           |             |             | /           |             |  |             |                                   | 2125           |
| PIPING                 | GUIDE NEXT TO PENETRATION | M-1173  | RHR-H2159 | X           |             |             | /           |             |  |             |                                   | 2125           |
| PIPING                 | MULTIPLE (PART OF H16)    | M-1173  | RHR-H2162 | X           |             |             |             | /           |  |             |                                   |                |
| PIPING                 | RIGID                     | M-1173  | R-RHR-H16 | X           |             | /           |             |             |  |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1173  | RHR-H2163 |             |             |             |             |             |  |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1173  | RHR-H2164 |             |             |             |             |             |  |             |                                   | 2165           |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1173  | RHR-H15   |             |             |             |             |             |  |             |                                   | SEE TECH SPECS |
| PIPING                 | SPRING SUPPORT            | M-1173  | RHR-H14   | X           | X           | /           |             |             |  |             |                                   |                |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1173  | RHR-H2165 |             |             |             |             |             |  |             |                                   | 185            |
| RHR HXGR 1A            | SUPPORT                   | M-1207  | AHRS1-SW1 | X           |             | /           |             |             |  |             |                                   |                |
| RHR HXGR 1A            | SUPPORT                   | M-1207  | AHRS1-SW2 | X           |             |             | /           |             |  |             |                                   |                |
| RHR HXGR 1B            | SUPPORT                   | M-1207  | AHRS2-SW3 | X           |             |             |             |             |  |             | EF-1                              |                |
| RHR HXGR 1B            | SUPPORT                   | M-1207  | AHRS2-SW4 | X           |             |             |             |             |  |             | EF-1                              |                |
| EXCESS LETDOWN HXGR 1A | BASE SUPPORT              | M-1221  |           | X           |             | /           |             |             |  |             |                                   |                |
| EXCESS LETDCWN HXGR 1B | BASE SUPPORT              | M-1221  |           | X           |             |             |             |             |  |             | EF-1                              |                |
| RHR PUMP A             | BASE SUPPORT              | M-1215  |           | X           |             | /           |             |             |  |             |                                   |                |
| RHR PUMP B             | BASE SUPPORT              | M-1215  |           | X           |             |             |             |             |  |             | EF-1                              |                |
| PIPING                 |                           | M-1164  | MS-H2113  | X           |             | /           |             |             |  |             |                                   |                |
| PIPING                 |                           | M-1164  | MS-H2114  | X           |             |             |             | /           |  |             |                                   |                |
| PIPING                 |                           | M-1164  | MS-H2115  | X           |             |             |             | /           |  |             |                                   |                |
| PIPING                 |                           | M-1164  | MS-H2116  | X           |             | /           |             |             |  |             |                                   |                |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY | EXAMINATION |             |             |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|------------------------|---------------------------|---------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------|
|                        |                           |         |          | METHOD      |             | PERIOD      |             |             |             |                                   |          |
|                        |                           |         |          | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>P<br>D |             |                                   |          |
| PIPING                 |                           | M-1164  | MS-H2117 | X           |             | /           |             |             |             |                                   |          |
| PIPING                 |                           | M-1164  | MS-H2118 | X           |             | /           |             |             |             |                                   |          |
| PIPING                 |                           | M-1164  | MS-H2119 | X           |             | /           |             |             |             |                                   |          |
| PIPING                 | WELDED SUPPORT            | M-1165  | MS-H10   | X           |             | /           |             |             |             |                                   |          |
| PIPING                 | WELDED SUPPORT            | M-1165  | MS-H11   | X           |             |             | /           |             |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1165  | MS-H2121 |             |             |             |             |             |             |                                   |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1167  | MS-H2133 |             |             |             |             |             |             | EF-1                              |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1167  | MS-H2134 |             |             |             |             |             |             | EF-1                              |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1167  | MS-2135  |             |             |             |             |             |             | EF-1                              |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1167  | MS-H2136 |             |             |             |             |             |             | EF-1                              |          |
| PIPING                 | *** RUPTURE RESTRAINT *** | M-1167  | MS-H2137 |             |             |             |             |             |             | EF-1                              |          |
| PIPING                 |                           | M-1167  | MS-H2139 | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 |                           | M-1167  | MS-H2140 | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 | WELDED SUPPORT            | M-1167  | MS-H1    | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 | WELDED SUPPORT            | M-1167  | MS-H2    | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 | ANCHOR ELBOW              | M-1167  | MS-H2138 | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 | HANGER                    | M-1174  | CS-H6    | X           |             |             |             | /           |             |                                   |          |
| PIPING                 | HANGER                    | M-1174  | CS-H5    | X           |             |             |             | /           |             |                                   |          |
| PIPING                 | HANGER                    | M-1174  | CS-H4    | X           |             |             |             | /           |             |                                   |          |
| PIPING                 | WELDED SUPPORT & SPRING   | M-1174  | CS-H3    | X           |             |             |             | /           |             |                                   |          |
| PIPING                 |                           | M-1175  | CS-H15   | X           |             |             |             | /           |             |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY | EXAMINATION |             |             |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS       |
|------------------------|---------------------------|---------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------------|
|                        |                           |         |          | METHOD      |             | PERIOD      |             |             |             |                                   |                |
|                        |                           |         |          | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |                |
|                        |                           |         |          |             |             |             |             |             |             |                                   |                |
| PIPING                 |                           | M-1175  | CS-H14   | X           |             |             | /           |             |             |                                   |                |
| PIPING                 |                           | M-1175  | CS-H13   | X           |             |             | /           |             |             |                                   |                |
| PIPING                 |                           | M-1175  | CS-H11   | X           |             | /           |             |             |             |                                   |                |
| PIPING                 |                           | M-1175  | CS-H10   | X           |             | /           |             |             |             |                                   |                |
| PIPING                 |                           | M-1175  | CS-H9    | X           |             |             |             | /           |             |                                   |                |
| PIPING                 |                           | M-1175  | CS-H12   | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | SPRING HANGER             | M-1079  | CS-H28   | X           | X           |             |             | /           |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1079  | CS-H29   | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1079  | CS-H38   | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1079  |          | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1079  |          | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1079  | CS-H31   | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1079  | CS-H32   | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1079  | CS-H33A  |             |             |             |             |             |             |                                   | SEE TECH SPECS |
| PIPING                 | RIGID SUPPORT             | M-1079  | CS-H33   | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | SPRING HANGER             | M-1078  | CS-H16   | X           | X           | /           |             |             |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1078  | CS-H17   | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1078  | CS-H18   | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | GUIDE/RESTRAINT           | M-1078  |          | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1078  | CS-H19   | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | GUIDE/RESTRAINT           | M-1078  |          | X           |             |             |             | /           |             |                                   |                |

Kewaunee Nuclear Power Plant  
Component Support ISI Examination List

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT    | SUPPORT TYPE    | DRAWING | IDENTITY | EXAMINATION |   |        |   |   |   |  | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|---------------------------|-----------------|---------|----------|-------------|---|--------|---|---|---|--|-------------|-----------------------------------|----------|
|                           |                 |         |          | METHOD      |   | PERIOD |   |   |   |  |             |                                   |          |
|                           |                 |         |          | V           | V | 1      | 2 | 3 |   |  |             |                                   |          |
|                           |                 |         |          | T           | T | S      | N | R |   |  |             |                                   |          |
| 3                         | 4               | T       | D        | D           |   |        |   |   |   |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1078  | CS-H20   | X           | - | -      | - | - | / |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1078  | CS-H21   | X           |   |        |   |   | / |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1078  | CS-H22   | X           |   |        | / |   |   |  |             |                                   |          |
| PIPING                    | GUIDE/RESTRAINT | M-1078  |          | X           |   |        | / |   |   |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1078  | CS-H23   | X           |   |        | / |   |   |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1078  | CS-H24   | X           |   | /      |   |   |   |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1078  | CS-H25   | X           |   | /      |   |   |   |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1078  | CS-H26   | X           |   | /      |   |   |   |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1078  | CS-H36   | X           |   |        |   |   | / |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1078  | CS-H37   | X           |   |        |   |   | / |  |             |                                   |          |
| PIPING                    | GUIDE/RESTRAINT | M-1078  | CS-H27A  | X           |   |        |   |   | / |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1078  | CS-H27   | X           |   |        |   |   | / |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1077  |          | X           |   |        |   |   | / |  |             |                                   |          |
| PIPING                    | GUIDE/RESTRAINT | M-1077  |          | X           |   |        |   |   | / |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1077  |          | X           |   |        |   |   | / |  |             |                                   |          |
| PIPING                    | GUIDE RESTRAINT | M-1077  |          | X           |   |        |   |   | / |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1077  |          | X           |   |        |   |   | / |  |             |                                   |          |
| PIPING                    | RIGID SUPPORT   | M-1077  |          | X           |   |        |   |   | / |  |             |                                   |          |
| CONTAINMENT SPRAY PUMP 1A |                 |         |          |             |   |        |   |   |   |  |             |                                   |          |
| CONTAINMENT SPRAY PUMP 1B |                 |         |          |             |   |        |   |   |   |  |             |                                   |          |
| PIPING                    | RIGID           | M-1173  | RSI-H1   | X           |   |        |   |   | / |  |             |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-E F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY  | EXAMINATION |             |             |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS       |
|------------------------|---------------------------|---------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------------|
|                        |                           |         |           | METHOD      |             | PERIOD      |             |             |             |                                   |                |
|                        |                           |         |           | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |                |
|                        |                           |         |           | -           | -           | -           | -           | -           |             |                                   |                |
| PIPING                 | ANCHOR                    | M-1174  | RHR-H3    | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | SPRING HANGER             | M-1174  | RHR-H10A  | X           | X           | /           |             |             |             |                                   |                |
| PIPING                 | *** SPRING SNUBBER ***    | M-1174  | RHR-H49   |             |             |             |             |             |             |                                   | SEE TECH SPECS |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1174  | RHR-H10H  |             |             |             |             |             |             |                                   | SEE TECH SPECS |
| PIPING                 | SPRING SUPPORT            | M-1174  | RHR-H10E  | X           | X           | /           |             |             |             |                                   |                |
| PIPING                 | ANCHOR                    | M-1174  | RHR-H10F  | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1174  | SI-H15A   | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | RIGID                     | M-1174  | SI-H15    | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | GUIDE                     | M-1175  | RHR-H2199 | X           |             |             |             |             |             | EF-1                              |                |
| PIPING                 | SPRING SUPPORT            | M-1175  | RHR-H10B  | X           | X           |             |             |             |             | EF-1                              |                |
| PIPING                 | SPRING SUPPORT            | M-1175  | RHR-H10C  | X           | X           |             |             |             |             | EF-1                              |                |
| PIPING                 | SPRING SUPPORT            | M-1175  | RHR-H10D  | X           | X           |             |             |             |             | EF-1                              |                |
| PIPING                 | ANCHOR                    | M-1175  | RHR-H10G  | X           | X           |             |             |             |             | EF-1                              |                |
| PIPING                 | RIGID                     | M-1175  | SI-H11    | X           |             |             |             |             |             | EF-1                              |                |
| PIPING                 | RIGID                     | M-1175  | SI-H10    | X           |             |             |             |             |             | EF-1                              |                |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1175  | SI-H10A   | X           |             |             |             |             |             | EF-1                              |                |
| PIPING                 | CONSTANT SUPPORT          | M-1176  | RHR-H1    | X           | X           |             | /           |             |             |                                   |                |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1176  | RHR-H12A  |             |             |             |             |             |             |                                   | SEE TECH SPECS |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1176  | RHR-H12B  |             |             |             |             |             |             |                                   | SEE TECH SPECS |
| PIPING                 | RIGID                     | M-1176  | RHR-H12   | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | CONSTANT SUPPORT          | M-1176  | RHR-H16   | X           |             | /           |             |             |             |                                   |                |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY | EXAMINATION |             |             |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS       |
|------------------------|---------------------------|---------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------------|
|                        |                           |         |          | METHOD      |             | PERIOD      |             |             |             |                                   |                |
|                        |                           |         |          | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |                |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1176  | RHR-H16A | -           | -           | -           | -           | -           | -           | -                                 | SEE TECH SPECS |
| PIPING                 | SPRING SUPPORT            | M-1176  | RHR-H14  | X           | X           |             |             | /           |             |                                   |                |
| PIPING                 | SPRING SUPPORT            | M-1176  | RSI-H53  | X           | X           |             | /           |             |             |                                   |                |
| PIPING                 | SPRING HANGER             | M-1176  | RSI-H52  | X           | X           |             | /           |             |             |                                   |                |
| PIPING                 | WELDED SUPPORT            | M-1176  | RSI-H50  | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | ANCHOR                    | M-1176  | RSI-H51  | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | SPRING HANGEE             | M-1176  | RSI-H49  | X           | X           | /           |             |             |             |                                   |                |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1176  | RSI-H59  |             |             |             |             |             |             |                                   | SEE TECH SPECS |
| PIPING                 | RESTRAINT                 | M-1176  | RSI-H60  | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | *** HYDRAULIC SNUBBEE *** | M-1176  | RSI-61   |             |             |             |             |             |             |                                   | SEE TECH SPECS |
| PIPING                 | WELDED SUPPORT            | M-1176  | RSI-H47  | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | ANCHOR                    | M-1099  | RHR-H31  | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | GUIDE/RESTRAINT           | M-1099  | SI-H32   | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1099  | SI-H2    | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1099  | SI-H1A   | X           |             | /           |             |             |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1099  | SI-H1    | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1099  |          | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1099  | SI-H7    | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | RIGID SUPPORT             | M-1099  | SI-H8    | X           |             |             | /           |             |             |                                   |                |
| PIPING                 | GUIDE/RESTRAINT           | M-1099  |          | X           |             |             |             | /           |             |                                   |                |
| PIPING                 | SPRING HANGER             | M-1099  | SI-H9    | X           | X           |             |             | /           |             |                                   |                |



KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

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| SUPPORTED<br>COMPONENT  | SUPPORT TYPE    | DRAWING | IDENTITY | EXAMINATION |             |             |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|-------------------------|-----------------|---------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------|
|                         |                 |         |          | METHOD      |             | PERIOD      |             |             |             |                                   |          |
|                         |                 |         |          | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |          |
| PIPING                  | GUIDE/RESTRAINT | M-1099  | SI-H9B   | X           |             |             |             | /           |             |                                   |          |
| PIPING                  | SPRING HANGER   | M-1099  | SI-H9N   | X           | X           |             |             | /           |             |                                   |          |
| PIPING                  | RIGID SUPPORT   | M-1099  | SI-H12   | X           |             |             |             | /           |             |                                   |          |
| PIPING                  | DUAL SPRING     | M-1101  | RSI-H55  | X           | X           | /           |             |             |             |                                   |          |
| PIPING                  | DUAL SPRING     | M-1101  | RSI-H33  | X           | X           |             | /           |             |             |                                   |          |
| PIPING                  | RIGID SUPPORT   | M-1093  | RSI-H34  | X           |             |             |             | /           |             |                                   |          |
| SAFETY INJECT.PUMP 1A   |                 |         |          |             |             |             |             |             |             |                                   |          |
| SAFETY INJECT.PUMP 1B   |                 |         |          |             |             |             |             |             |             |                                   |          |
| ACCUMULATOR 1A          |                 |         |          |             |             |             |             |             |             |                                   |          |
| ACCUMULATOR 1B          |                 |         |          |             |             |             |             |             |             |                                   |          |
| REGENERATIVE HXGR       | BRACKET         | M-1208  |          | X           |             | /           |             |             |             |                                   |          |
| LETDOWN HXGR            | SUPPORT         | M-1209  | AHNR-SW1 | X           |             | /           |             |             |             |                                   |          |
| LETDOWN HXGR            | SUPPORT         | M-1209  | AHNR-SW2 | X           |             |             | /           |             |             |                                   |          |
| CHARGNG PMP PULSE DAMPR | SUPPORT         | M-1210  |          | X           |             |             |             |             |             | NOT REQUIRED                      |          |
| VOLUME CONTROL TANK     | SUPPORT LEGS    | M-1211  | VCT-SW1  | X           |             | /           |             |             |             |                                   |          |
| VOLUME CONTROL TANK     | SUPPORT LEGS    | M-1211  | VCT-SW2  | X           |             |             | /           |             |             |                                   |          |
| VOLUME CONTROL TANK     | SUPPORT LEGS    | M-1211  | VCT-SW3  | X           |             |             | /           |             |             |                                   |          |
| VOLUME CONTROL TANK     | SUPPORT LEGS    | M-1211  | VCT-SW4  | X           |             |             |             | /           |             |                                   |          |
| SEAL WTR INJECT FLTR 1A | SUPPORT LEGS    | M-1212  | AFSI-SW1 | X           |             | /           |             |             |             |                                   |          |
| SEAL WTR INJECT FLTR 1A | SUPPORT LEGS    | M-1212  | AFSI-SW2 | X           |             |             | /           |             |             |                                   |          |
| SEAL WTR INJECT FLTR 1A | SUPPORT LEGS    | M-1212  | AFSI-SW3 | X           |             |             |             | /           |             |                                   |          |

Kewaunee Nuclear Power Plant  
Component Support ISI Examination List

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT   | SUPPORT TYPE         | DRAWING | IDENTITY | EXAMINATION |   |        |   |   |  |   | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|--------------------------|----------------------|---------|----------|-------------|---|--------|---|---|--|---|-------------|-----------------------------------|----------|
|                          |                      |         |          | METHOD      |   | PERIOD |   |   |  |   |             |                                   |          |
|                          |                      |         |          | V           | V | 1      | 2 | 3 |  |   |             |                                   |          |
|                          |                      |         |          | T           | T | S      | N | R |  |   |             |                                   |          |
|                          |                      |         |          | 3           | 4 | T      | D | D |  |   |             |                                   |          |
| SEAL WTR INJECT FLTR 1B  | SUPPORT LEGS         | M-1212  | AFSI-SW4 | X           |   |        |   |   |  |   | EF-1        |                                   |          |
| SEAL WTR INJECT FLTR 1B  | SUPPORT LEGS         | M-1212  | AFSI-SW5 | X           |   |        |   |   |  |   | EF-1        |                                   |          |
| SEAL WTR INJECT FLTR 1B  | SUPPORT LEGS         | M-1212  | AFSI-SW6 | X           |   |        |   |   |  |   | EF-1        |                                   |          |
| REACTOR COOLANT FLTR     | SUPPORT LEGS         | M-1213  | AFRC-SW1 | X           |   | /      |   |   |  |   |             |                                   |          |
| REACTOR COOLANT FLTR     | SUPPORT LEGS         | M-1213  | AFRC-SW2 | X           |   |        | / |   |  |   |             |                                   |          |
| REACTOR COOLANT FLTR     | SUPPORT LEGS         | M-1213  | AFRC-SW3 | X           |   |        |   | / |  |   |             |                                   |          |
| SEAL WTR RETURN FLTR     | SUPPORT LEGS         | M-1214  | AFSW-SW1 | X           |   | /      |   |   |  |   |             |                                   |          |
| SEAL WTR RETURN FLTR     | SUPPORT LEGS         | M-1214  | AFSW-SW2 | X           |   |        | / |   |  |   |             |                                   |          |
| SEAL WTR RETURN FLTR     | SUPPORT LEGS         | M-1214  | AFSW-SW3 | X           |   |        |   | / |  |   |             |                                   |          |
| CHARGING PUMP 1A         | UPRIGHT/BASE SUPPORT | M-1216  |          | X           |   |        |   | / |  |   |             |                                   |          |
| CHARGING PUMP 1B         | UPRIGHT/BASE SUPPORT | M-1216  |          | X           |   |        |   |   |  |   | EF-1        |                                   |          |
| CHARGING PUMP 1C         | UPRIGHT/BASE SUPPORT | M-1216  |          | X           |   |        |   |   |  |   | EF-1        |                                   |          |
| SEAL WTR HXGR            | BASE SUPPORT         | M-1227  |          | X           |   |        | / |   |  |   |             |                                   |          |
| CHG PMP SUCT.STABLIZR 1A |                      |         |          |             |   |        |   |   |  |   |             |                                   |          |
| CHG PMP SUCT.STABLIZR 1B |                      |         |          |             |   |        |   |   |  |   |             |                                   |          |
| CHG PMP SUCT.STABLIZR 1C |                      |         |          |             |   |        |   |   |  |   |             |                                   |          |
| APW PUMP 1A              | BASE SUPPORT         | M-1232  |          | X           |   |        |   |   |  | / |             |                                   |          |
| APW PUMP 1B              | BASE SUPPORT         | M-1232  |          | X           |   |        |   |   |  |   | EF-1        |                                   |          |
| APW TURB DRIVEN PUMP     | BASE SUPPORT         | M-1231  |          | X           |   |        |   |   |  |   | EF-1        |                                   |          |
| PIPING                   | SPRING HANGER        | M-1182  | AC-H23   | X           | X |        |   |   |  | / |             |                                   |          |
| PIPING                   | SPRING HANGER        | M-1182  | AC-H18   | X           | X |        |   |   |  |   | EF-1        |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE              | DRAWING | IDENTITY | EXAMINATION |             |             |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS       |
|------------------------|---------------------------|---------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------------|
|                        |                           |         |          | METHOD      |             | PERIOD      |             |             |             |                                   |                |
|                        |                           |         |          | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |                |
| PIPING                 | ANCHOR                    | M-1182  | AC-H20   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RIGID                     | M-1182  | AC-H12   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RIGID                     | M-1182  | AC-H19   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RESTRAINT                 | M-1182  | AC-H69   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RESTRAINT                 | M-1182  | AC-H70   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | *** HYDRAULIC SNUBBER *** | M-1182  | AC-H68   |             |             |             |             |             |             |                                   | SEE TECH SPECS |
| PIPING                 | SPRING                    | M-1182  | AC-H64   | X           | X           |             |             |             | /           |                                   |                |
| PIPING                 | RIGID                     | M-1182  | AC-H24   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RIGID                     | M-1182  | AC-H25A  | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RIGID                     | M-1182  | AC-H25   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RIGID                     | M-1182  | AC-H45   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RIGID                     | M-1182  | AC-H47   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RIGID                     | M-1182  | AC-H50   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RIGID                     | M-1182  | AC-H33   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RIGID                     | M-1182  | AC-H37   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RIGID                     | M-1182  | AC-H31   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RESTRAINT                 | M-1182  | AC-H43   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | WELDED SUPPORT            | M-1183  | AC-H2    | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | WELDED SUPPORT            | M-1183  | AC-H4    | X           |             |             |             |             |             |                                   | EF-1           |
| PIPING                 | SWAY & STRUT RESTRAINT    | M-1183  | AC-H67   | X           |             |             |             |             | /           |                                   |                |
| PIPING                 | RIGID                     | M-1183  | AC-H1    | X           |             |             |             |             | /           |                                   |                |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE           | DRAWING | IDENTITY | EXAMINATION |   |        |   |   |   |      | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|------------------------|------------------------|---------|----------|-------------|---|--------|---|---|---|------|-----------------------------------|----------|
|                        |                        |         |          | METHOD      |   | PERIOD |   |   |   |      |                                   |          |
|                        |                        |         |          | V           | V | 1      | 2 | 3 | 3 |      |                                   |          |
|                        |                        |         |          | T           | T | S      | N | R | O |      |                                   |          |
|                        |                        |         |          | 3           | 4 | T      | D | D | I |      |                                   |          |
| PIPING                 | RIGID                  | M-1183  | AC-H7    | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | RIGID                  | M-1183  | AC-H9    | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | RIGID                  | M-1183  | AC-H11   | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | ANCHOR                 | M-1183  | AC-H16   | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | RIGID                  | M-1183  | AC-H19   | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | RIGID                  | M-1183  | AC-H21   | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | RIGID                  | M-1183  | AC-H10   | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | RIGID                  | M-1183  | AC-H76   | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | SWAY & STRUT RESTRAINT | M-1183  | AC-H77   | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | RIGID                  | M-1183  | AC-H15   | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | RIGID                  | M-1182  | AC-H14   | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | SPRING HANGER          | M-1182  | AC-H13   | X           | X |        |   |   |   | /    |                                   |          |
| PIPING                 | SPRING HANGER          | M-1182  | AC-H17   | X           | X |        |   |   |   | /    |                                   |          |
| PIPING                 | SPRING HANGER          | M-1185  | AC-H22   | X           | X |        |   |   |   | EF-1 |                                   |          |
| PIPING                 | WELDED SUPPORT         | M-1184  | AC-H3    | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | WELDED SUPPORT         | M-1184  | AC-H5    | X           |   |        |   |   |   | EF-1 |                                   |          |
| PIPING                 | RIGID                  | M-1184  | AC-H6    | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | RIGID                  | M-1184  | AC-H8    | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | RIGID                  | M-1184  | AC-H48   | X           |   |        |   |   |   | /    |                                   |          |
| PIPING                 | SPRING SUPPORT         | M-1184  | AC-H82   | X           | X |        |   |   |   | /    |                                   |          |
| PIPING                 | RIGID                  | M-1184  | AC-H46   | X           |   |        |   |   |   | /    |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT    | SUPPORT TYPE      | DRAWING | IDENTITY | EXAMINATION |             |             |             |             |             |                                   | COMMENTS |
|---------------------------|-------------------|---------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------|
|                           |                   |         |          | METHOD      |             | PERIOD      |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST |          |
|                           |                   |         |          | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |          |
|                           |                   |         |          |             |             |             |             |             |             |                                   |          |
| PIPING                    | RIGID             | M-1184  | AC-H44   | X           |             |             |             |             |             | /                                 |          |
| PIPING                    | RIGID             | M-1184  | AC-H51   | X           |             |             |             |             |             | /                                 |          |
| PIPING                    | RESTRAINT         | M-1184  | AC-H65   | X           |             |             |             |             |             | /                                 |          |
| COMPONENT CLNG SURGE TANK | LEG TYPE SUPPORT  | M-1218  |          | X           |             |             |             |             |             | /                                 |          |
| COMPONENT CLNG HXGR 1A    | SUPPORT BRACKET   | M-1222  |          | X           |             |             |             |             |             | /                                 |          |
| COMPONENT CLNG HXGR 1B    | SUPPORT BRACKET   | M-1222  |          | X           |             |             |             |             |             |                                   | EF-1     |
| RHR HXGR 1A               | SUPPORT BRACKET   | M-1224  |          | X           |             |             |             |             |             | /                                 |          |
| RHR HXGR 1B               | SUPPORT BRACKET   | M-1224  |          | X           |             |             |             |             |             |                                   | EF-1     |
| RC PUMP 1A OIL COOLER     | SUPPORT           | M-1228  |          | X           |             |             |             |             |             | /                                 |          |
| RC PUMP 1B OIL COOLER     | SUPPORT           | M-1228  |          | X           |             |             |             |             |             |                                   | EF-1     |
| SHAFT SEAL HXGR RHR A     | SUPPORT           | M-1229  |          | X           |             |             |             |             |             | /                                 |          |
| SHAFT SEAL HXGR RHR B     | SUPPORT           | M-1229  |          | X           |             |             |             |             |             |                                   | EF-1     |
| COMPONENT COOLING PUMP 1A | BASE SUPPORT      | M-1234  |          | X           |             |             |             |             |             | /                                 |          |
| COMPONENT COOLING PUMP 1B | BASE SUPPORT      | M-1234  |          | X           |             |             |             |             |             |                                   | EF-1     |
| SAFETY INJEC PUMP 1A      | BASE SUPPORT      | M-1237  |          | X           |             |             |             |             |             | /                                 |          |
| SAFETY INJEC PUMP 1B      | BASE SUPPORT      | M-1237  |          | X           |             |             |             |             |             |                                   | EF-1     |
| SEAL WTR HXGR             | UPPER SUPPORT LEG | M-1227  |          | X           |             |             |             |             |             | /                                 |          |
| ICS PMP 1A GLAND COOLER   | BRACKET           | M-1233  |          | X           |             |             |             |             |             | /                                 |          |
| ICS PMP 1B GLAND COOLER   | BRACKET           | M-1233  |          | X           |             |             |             |             |             |                                   | EF-1     |
| PIPING                    | SPRING HANGER     | M-1190  | SI-H6    | X           | X           |             |             |             |             | /                                 |          |
| PIPING                    | RIGID             | M-1190  | SI-H6A   | X           |             |             |             |             |             | /                                 |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE                | DRAWING | IDENTITY  | EXAMINATION |   |        |   |   |             |                                   | COMMENTS |
|------------------------|-----------------------------|---------|-----------|-------------|---|--------|---|---|-------------|-----------------------------------|----------|
|                        |                             |         |           | METHOD      |   | PERIOD |   |   | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST |          |
|                        |                             |         |           | V           | V | 1      | 2 | 3 |             |                                   |          |
|                        |                             |         |           | T           | T | S      | N | R |             |                                   |          |
| 3                      | 4                           | T       | D         | D           |   |        |   |   |             |                                   |          |
| PIPING                 | SPRING                      | M-1190  | SI-H6B    | X           | X |        |   |   | /           |                                   |          |
| PIPING                 | *** HYDRAULIC SNUBBER ***   | M-1190  | SI-H6D    |             |   |        |   |   |             | SEE TECH SPECS                    |          |
| PIPING                 | SPRING                      | M-1190  | SI-H6E    | X           | X |        |   |   | /           |                                   |          |
| BORIC ACID TANK 1A     | LEG SUPPORT                 | M-1217  |           | X           |   |        |   |   | /           |                                   |          |
| BORIC ACID TANK 1B     | LEG SUPPORT                 | M-1219  |           | X           |   |        |   |   | EF-1        |                                   |          |
| BORIC ACID FILTER      | LEG SUPPORT                 | M-1219  |           | X           |   |        |   |   | /           |                                   |          |
| BORIC ACID XFR PMP A   | BASE SUPPORT                | M-1235  |           | X           |   |        |   |   | /           |                                   |          |
| BORIC ACID XFR PMP B   | BASE SUPPORT                | M-1235  |           | X           |   |        |   |   | EF-1        |                                   |          |
| LETDOWN HXGR           | UPPER SHELL SUPPORT BRACKET | M-1226  |           | X           |   |        |   |   | /           |                                   |          |
| PIPING                 | REVERSE STANCHION           | M-1191  | SFP-H4    | X           |   |        |   |   | /           |                                   |          |
| PIPING                 | DUAL SPRING                 | M-1191  | SFP-H3    | X           | X |        |   |   | /           |                                   |          |
| PIPING                 | DUAL SPRING                 | M-1191  | SFP-H2    | X           | X |        |   |   | /           |                                   |          |
| PIPING                 | RIGID                       | M-1191  | SFP-H5    | X           |   |        |   |   | /           |                                   |          |
| PIPING                 |                             | M-1191  | SFP-H6    | X           |   |        |   |   | /           |                                   |          |
| PIPING                 |                             | M-1191  | SFP-H7    | X           |   |        |   |   | /           |                                   |          |
| PIPING                 | RIGID                       | M-1191  | SFP-H8    | X           |   |        |   |   | /           |                                   |          |
| PIPING                 | RIGID                       | M-1191  | SFP-H9    | X           |   |        |   |   | /           |                                   |          |
| PIPING                 |                             | M-1191  | SFP-H18   | X           |   |        |   |   | /           |                                   |          |
| PIPING                 | RIGID                       | M-1191  | SFP-H17   | X           |   |        |   |   | /           |                                   |          |
| PIPING                 | SPRING                      | M-1191  | SFP-H16   | X           | X |        |   |   | /           |                                   |          |
| PIPING                 |                             | M-1191  | SFP-H2177 | X           |   |        |   |   | /           |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT  | SUPPORT TYPE    | DRAWING | IDENTITY  | EXAMINATION |             |             |             |             |  |   | E<br>O<br>I | EXEMPTION<br>OF RELIEF<br>REQUEST | COMMENTS |
|-------------------------|-----------------|---------|-----------|-------------|-------------|-------------|-------------|-------------|--|---|-------------|-----------------------------------|----------|
|                         |                 |         |           | METHOD      |             | PERIOD      |             |             |  |   |             |                                   |          |
|                         |                 |         |           | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |  |   |             |                                   |          |
|                         |                 |         |           | -           | -           | -           | -           | -           |  |   |             |                                   |          |
| PIPING                  |                 | M-1191  | SFP-H2178 | X           |             |             |             |             |  | / |             |                                   |          |
| SPENT FUEL POOL HXGR    | SUPPORT BRACKET | M-1223  |           | X           |             |             |             |             |  | / |             |                                   |          |
| SPENT FUEL POOL PUMP 1A | BASE SUPPORT    | M-1230  |           | X           |             |             |             |             |  | / |             |                                   |          |
| SPENT FUEL POOL PUMP 1B | BASE SUPPORT    | M-1230  |           | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | SWAY STRUT      | M-1177  | SWSH-H18  | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | SPRING          | M-1177  | SWSH-H13  | X           | X           |             |             |             |  | / |             |                                   |          |
| PIPING                  | GUIDE           | M-1177  | SWSH-H12  | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | RIGID           | M-1177  | SWSH-H11  | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | GUIDE           | M-1177  | SWSH-H10  | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | GUIDE           | M-1177  | SWSH-H9   | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | GUIDE           | M-1177  | SWSH-H20  | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | RIGID           | M-1177  | SWSH-H1   | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | RIGID           | M-1177  | SW-H3     | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | RIGID           | M-1177  | SW-H3A    | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | STANCHION       | M-1177  | SW-H5     | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | ANCHOR          | M-1177  | SW-H9     | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | STANCHION       | M-1177  | SW-H10    | X           |             |             |             |             |  | / |             |                                   |          |
| PIPING                  | SPRING          | M-1177  | SWSH-H13A | X           | X           |             |             |             |  |   | EF-1        |                                   |          |
| PIPING                  | GUIDE           | M-1177  | SWSH-H14  | X           |             |             |             |             |  |   | EF-1        |                                   |          |
| PIPING                  | GUIDE           | M-1177  | SWSH-H15  | X           |             |             |             |             |  |   | EF-1        |                                   |          |
| PIPING                  | GUIDE           | M-1177  | SWSH-H19  | X           |             |             |             |             |  |   | EF-1        |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE | DRAWING | IDENTITY | EXAMINATION |             |             |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|------------------------|--------------|---------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------|
|                        |              |         |          | METHOD      |             | PERIOD      |             |             |             |                                   |          |
|                        |              |         |          | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |          |
|                        |              |         |          | -           | -           | -           | -           | -           |             |                                   |          |
| PIPING                 | RIGID        | M-1177  | SW-H2    | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 | RIGID        | M-1177  | SW-H4    | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 | RIGID        | M-1177  | SW-H4A   | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 | STANCHION    | M-1177  | SW-H6    | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 | STANCHION    | M-1177  | SW-H7    | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 | ANCHOR       | M-1177  | SW-HB    | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 | ANCHOR       | M-1177  | SW-H11   | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 | ANCHOR       | M-1177  | SW-H261  | X           |             |             |             |             |             | EF-1                              |          |
| PIPING                 | STANCHION    | M-1178  | SW-H153  | X           |             |             |             |             | /           |                                   |          |
| PIPING                 | STANCHION    | M-1178  | SW-H55A  | X           |             |             |             |             | /           |                                   |          |
| PIPING                 | STANCHION    | M-1178  | SW-H151  | X           |             |             |             |             | /           |                                   |          |
| PIPING                 | ANCHOR       | M-1178  | SW-H150  | X           |             |             |             |             | /           |                                   |          |
| PIPING                 | STANCHION    | M-1178  | SW-H149  | X           |             |             |             |             | /           |                                   |          |
| PIPING                 | STANCHION    | M-1178  | SW-H148  | X           |             |             |             |             | /           |                                   |          |
| PIPING                 | ANCHOR       | M-1178  | SW-H147  | X           |             |             |             |             | /           |                                   |          |
| PIPING                 | GUIDE        | M-1178  | SW-H146A | X           |             |             |             |             | /           |                                   |          |
| PIPING                 | STANCHION    | M-1178  | SW-H146  | X           |             |             |             |             | /           |                                   |          |
| PIPING                 | STANCHION    | M-1178  | SW-H145  | X           |             |             |             |             | /           |                                   |          |
| PIPING                 | RIGID        | M-1178  | SW-H215  | X           |             |             |             |             | /           |                                   |          |
| PIPING                 | RESTRAINT    | M-1178  | SW-H91   | X           |             |             |             |             | /           |                                   |          |
| PIPING                 | RESTRAINT    | M-1178  | SW-H221  | X           |             |             |             |             | /           |                                   |          |



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KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST  
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CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

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| SUPPORTED<br>COMPONENT | SUPPORT TYPE   | DRAWING | IDENTITY | EXAMINATION |             |             |             |             |             |                                   | COMMENTS |
|------------------------|----------------|---------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------|
|                        |                |         |          | METHOD      |             | PERIOD      |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST |          |
|                        |                |         |          | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |          |
|                        |                |         |          | -           | -           | -           | -           | -           |             |                                   |          |
| PIPING                 | RIGID          | M-1178  | SW-H92   | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | DUAL RESTRAINT | M-1178  | SW-H144A | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1178  | SW-H144  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1178  | SW-H214  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | ANCHOR         | M-1178  | SW-H143  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1178  | SW-H142  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1178  | SW-H142A | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1178  | SW-H97A  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | SWAY STRUT     | M-1178  | SW-H222  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1178  | SW-H97   | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1178  | SW-H99   | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1178  | SW-H101  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | SWAY STRUT     | M-1178  | SW-H101A | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1178  | SW-H102  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1178  | SW-H248  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | GUIDE          | M-1179  | SW-H46A  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1179  | SW-H51   | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RESTRAINT      | M-1179  | SW-H53   | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1179  | SW-H55   | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1179  | SW-H235  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID          | M-1179  | SW-H236  | X           |             |             |             |             |             | /                                 |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE            | DRAWING | IDENTITY | EXAMINATION |   |        |   |   |  |  | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|------------------------|-------------------------|---------|----------|-------------|---|--------|---|---|--|--|-------------|-----------------------------------|----------|
|                        |                         |         |          | METHOD      |   | PERIOD |   |   |  |  |             |                                   |          |
|                        |                         |         |          | V           | V | 1      | 2 | 3 |  |  |             |                                   |          |
|                        |                         |         |          | T           | T | S      | N | R |  |  |             |                                   |          |
| 3                      | 4                       | T       | D        | D           |   |        |   |   |  |  |             |                                   |          |
| PIPING                 | RESTRAINT               | M-1179  | SW-H411  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RIGID                   | M-1179  | SW-H237  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RESTRAINT               | M-1179  | SW-H412  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RIGID                   | M-1179  | SW-H238  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RESTRAINT               | M-1179  | SW-H413  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RIGID                   | M-1179  | SW-H239  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RIGID                   | M-1179  | SW-H241  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | STANCHION               | M-1179  | SW-H87   | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RIGID                   | M-1179  | SW-H88   | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RIGID                   | M-1179  | SW-H89   | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RIGID                   | M-1179  | SW-H118  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RIGID                   | M-1179  | SW-H119  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | SHOCK & SWAY SUPPRESSOR | M-1179  | SW-H401  | X           | X |        |   |   |  |  | /           |                                   |          |
| PIPING                 |                         | M-1179  | SW-H2168 | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 |                         | M-1179  | SW-H2169 | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RIGID                   | M-1180  | SW-H138  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RESTRAINT               | M-1180  | SW-H216  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | DUAL SPRING             | M-1180  | SW-H243  | X           | X |        |   |   |  |  | /           |                                   |          |
| PIPING                 | MULTIPLE                | M-1180  | SW-H244  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | RIGID                   | M-1180  | SW-H250  | X           |   |        |   |   |  |  | /           |                                   |          |
| PIPING                 | SWAY STRUT              | M-1180  | SW-H251  | X           |   |        |   |   |  |  | /           |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE     | DRAWING | IDENTITY | EXAMINATION |   |        |   |   |             |                                   | COMMENTS |
|------------------------|------------------|---------|----------|-------------|---|--------|---|---|-------------|-----------------------------------|----------|
|                        |                  |         |          | METHOD      |   | PERIOD |   |   | E<br>O<br>I | EXEMPTION<br>OP RELIEF<br>REQUEST |          |
|                        |                  |         |          | V           | V | 1      | 2 | 3 |             |                                   |          |
|                        |                  |         |          | T           | T | S      | N | R |             |                                   |          |
| 3                      | 4                | T       | D        | D           |   |        |   |   |             |                                   |          |
| PIPING                 | RIGID            | M-1180  | SW-H252  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | GUIDE            | M-1180  | SW-H246  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | SPRING           | M-1180  | SW-H247  | X           | X |        |   |   |             | /                                 |          |
| PIPING                 | DUAL SPRING      | M-1180  | SFP-H1   | X           | X |        |   |   |             | /                                 |          |
| PIPING                 | ANCHOR           | M-1181  | SW-H134  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | RIGID            | M-1181  | SW-H132  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | STANCHION        | M-1181  | SW-H131  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | RIGID            | M-1181  | SW-H130  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | SWAY STRUT       | M-1181  | SW-H166  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | RIGID            | M-1181  | SW-H129  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | SWAY STRUT       | M-1181  | SW-H129A | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | STANCHION        | M-1181  | SW-H125  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | GUIDE            | M-1181  | SW-H168  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | SPRING           | M-1181  | RSW-H18  | X           | X |        |   |   |             | /                                 |          |
| PIPING                 | GUIDE            | M-1181  | RSW-H167 | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | DUAL SPRING      | M-1181  | RSW-H12  | X           | X |        |   |   |             | /                                 |          |
| PIPING                 | SPRING STANCHION | M-1181  | RSW-H13  | X           | X |        |   |   |             | /                                 |          |
| PIPING                 | RIGID            | M-1185  | SW-H213  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | RIGID            | M-1185  | SW-H212  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | RIGID            | M-1185  | SW-H211  | X           |   |        |   |   |             | /                                 |          |
| PIPING                 | RESTRAINT        | M-1185  | SW-H171  | X           |   |        |   |   |             | /                                 |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE   | DRAWING | IDENTITY | EXAMINATION |   |         |   |   |   |           | COMMENTS |
|------------------------|----------------|---------|----------|-------------|---|---------|---|---|---|-----------|----------|
|                        |                |         |          | METHOD      |   | PERIOD  |   |   |   |           |          |
|                        |                |         |          | V           | V | 1       | 2 | 3 | E | EXEMPTION |          |
|                        |                |         |          | T           | T | S       | N | R | O | OR RELIEF |          |
| 3                      | 4              | T       | D        | D           | I | REQUEST |   |   |   |           |          |
| PIPING                 | RESTRAINT      | M-1185  | SW-H170  | X           |   |         |   |   |   | /         |          |
| PIPING                 | RESTRAINT      | M-1185  | SW-H169  | X           |   |         |   |   |   | /         |          |
| PIPING                 | RIGID          | M-1185  | SW-H242  | X           |   |         |   |   |   | /         |          |
| PIPING                 | GUIDE          | M-1185  | SW-H137A | X           |   |         |   |   |   | /         |          |
| PIPING                 | RIGID          | M-1185  | SW-H137  | X           |   |         |   |   |   | /         |          |
| PIPING                 | GUIDE          | M-1185  | SW-H399  | X           |   |         |   |   |   | /         |          |
| PIPING                 | RIGID          | M-1185  | SW-H136B | X           |   |         |   |   |   | /         |          |
| PIPING                 | ANCHOR         | M-1185  | SW-H136  | X           |   |         |   |   |   | /         |          |
| PIPING                 | SWAY STRUT     | M-1185  | SW-H135A | X           |   |         |   |   |   | /         |          |
| PIPING                 | ANCHOR         | M-1185  | SW-H135  | X           |   |         |   |   |   | /         |          |
| PIPING                 | RIGID          | M-1185  | SW-H133  | X           |   |         |   |   |   | /         |          |
| PIPING                 | RIGID          | M-1185  | SW-H93A  | X           |   |         |   |   |   | /         |          |
| PIPING                 | DUAL RESTRAINT | M-1185  | SW-H144A | X           |   |         |   |   |   | /         |          |
| PIPING                 | RIGID          | M-1185  | SW-H94   | X           |   |         |   |   |   | /         |          |
| PIPING                 | SWAY STRUT     | M-1185  | SW-H94A  | X           |   |         |   |   |   | /         |          |
| PIPING                 | RIGID          | M-1185  | SW-H95   | X           |   |         |   |   |   | /         |          |
| PIPING                 | RIGID          | M-1185  | SW-H96   | X           |   |         |   |   |   | /         |          |
| PIPING                 | RIGID          | M-1185  | SW-H93   | X           |   |         |   |   |   | /         |          |
| PIPING                 | RIGID          | M-1185  | SW-H98A  | X           |   |         |   |   |   | /         |          |
| PIPING                 | RIGID          | M-1185  | SW-H98   | X           |   |         |   |   |   | /         |          |
| PIPING                 | RIGID          | M-1185  | SW-H100  | X           |   |         |   |   |   | /         |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE | DRAWING | IDENTITY | EXAMINATION |             |             |             |             | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|------------------------|--------------|---------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|----------|
|                        |              |         |          | METHOD      |             | PERIOD      |             |             |             |                                   |          |
|                        |              |         |          | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |             |                                   |          |
| PIPING                 | RIGID        | M-1185  | SW-H100A | X           | -           | -           | -           | -           | -           | /                                 |          |
| PIPING                 | SWAY STRUT   | M-1185  | SW-H100B | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RESTRAINT    | M-1185  | SW-H96A  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RESIRAIN     | M-1186  | SW-H172  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID        | M-1186  | SW-H120  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID        | M-1186  | SW-H121  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID        | M-1186  | SW-H122  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID        | M-1186  | SW-H123  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | SWAY STRUT   | M-1186  | SW-H123A | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | STANCHION    | M-1186  | SW-H124  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | SWAY STRUT   | M-1186  | SW-H126A | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | STANCHION    | M-1186  | SW-H126  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID        | M-1186  | SW-H128  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID        | M-1186  | SW-H110  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | SWAY STRUT   | M-1186  | SW-H110A | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID        | M-1186  | SW-H109  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | SWAY STRUT   | M-1186  | SW-H109A | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID        | M-1186  | SW-H108  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID        | M-1186  | SW-H107A | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID        | M-1186  | SW-H107  | X           |             |             |             |             |             | /                                 |          |
| PIPING                 | RIGID        | M-1187  | BSW-H15  | X           |             |             |             |             |             | /                                 |          |

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KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

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| SUPPORTED<br>COMPONENT | SUPPORT TYPE  | DRAWING | IDENTITY | EXAMINATION |   |        |   |   |  | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|------------------------|---------------|---------|----------|-------------|---|--------|---|---|--|-------------|-----------------------------------|----------|
|                        |               |         |          | METHOD      |   | PERIOD |   |   |  |             |                                   |          |
|                        |               |         |          | V           | V | 1      | 2 | 3 |  |             |                                   |          |
|                        |               |         |          | T           | T | S      | N | P |  |             |                                   |          |
|                        |               |         |          | 3           | 4 | T      | D | D |  |             |                                   |          |
| PIPING                 | RIGID         | M-1187  | RSW-H14  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | GUIDE         | M-1187  | RSW-H16  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | RIGID         | M-1187  | SW-H114  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | SPRING        | M-1187  | RSW-H20  | X           | X |        |   |   |  | /           |                                   |          |
| PIPING                 | RIGID         | M-1187  | SW-H173  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | RIGID SUPPORT | M-1187  | SW-H174  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | RIGID         | M-1187  | SW-H113  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | RESTRAINT     | M-1187  | SW-H112  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | RESTRAINT     | M-1187  | SW-H258  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | RESIRAIN      | M-1187  | SW-H257  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | RIGID         | M-1187  | SW-H185  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | SWAY STRUT    | M-1187  | SW-H185A | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | RESTRAINT     | M-1187  | SW-H105  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | RIGID         | M-1188  | SW-H104  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | RIGID         | M-1188  | SW-H104A | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | RESTRAINT     | M-1188  | SW-H177  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | GUIDE         | M-1188  | SW-H181  | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | DUAL SPRING   | M-1188  | BSW-H1   | X           | X |        |   |   |  | /           |                                   |          |
| PIPING                 |               | M-1188  | RSW-H2   | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 |               | M-1188  | RSW-H3   | X           |   |        |   |   |  | /           |                                   |          |
| PIPING                 | DUAL RIGID    | M-1188  | RSW-H4   | X           |   |        |   |   |  | /           |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT | SUPPORT TYPE | DRAWING | IDENTITY  | EXAMINATION |   |        |   |   |   |   | E<br>O<br>I | EXEMPTION<br>OF RELIEF<br>REQUEST | COMMENTS |
|------------------------|--------------|---------|-----------|-------------|---|--------|---|---|---|---|-------------|-----------------------------------|----------|
|                        |              |         |           | METHOD      |   | PERIOD |   |   |   |   |             |                                   |          |
|                        |              |         |           | V           | V | 1      | 2 | 3 |   |   |             |                                   |          |
|                        |              |         |           | T           | T | S      | N | R |   |   |             |                                   |          |
| 3                      | 4            | T       | D         | D           |   |        |   |   |   |   |             |                                   |          |
| PIPING                 | RESTRAINT    | M-1188  | SW-H178   | X           | - | -      | - | - | - | / |             |                                   |          |
| PIPING                 | GUIDE        | M-1188  | SW-H182   | X           |   |        |   |   |   | / |             |                                   |          |
| PIPING                 | DUAL SPRING  | M-1188  | PSW-H7    | X           | X |        |   |   |   | / |             |                                   |          |
| PIPING                 | DUAL SPRING  | M-1188  | RSW-H2171 | X           |   |        |   |   |   | / |             |                                   |          |
| PIPING                 | SPRING       | M-1188  | RSW-H2172 | X           | X |        |   |   |   | / |             |                                   |          |
| PIPING                 | SPRING       | M-1188  | RSW-H8    | X           | X |        |   |   |   | / |             |                                   |          |
| PIPING                 |              | M-1188  | RSW-H10   | X           |   |        |   |   |   | / |             |                                   |          |
| PIPING                 | SPRING       | M-1189  | RSW-H6    | X           | X |        |   |   |   | / |             |                                   |          |
| PIPING                 | GUIDE        | M-1189  | SW-H179   | X           |   |        |   |   |   | / |             |                                   |          |
| PIPING                 | SPRING       | M-1189  | PSW-H30   | X           | X |        |   |   |   | / |             |                                   |          |
| PIPING                 | SPRING       | M-1189  | RSW-H32   | X           | X |        |   |   |   | / |             |                                   |          |
| PIPING                 | SPRING       | M-1189  | RSW-H33   | X           | X |        |   |   |   | / |             |                                   |          |
| PIPING                 | DUAL SPRING  | M-1189  | SW-H175   | X           | X |        |   |   |   | / |             |                                   |          |
| PIPING                 |              | M-1189  | RSW-H2176 | X           |   |        |   |   |   | / |             |                                   |          |
| PIPING                 |              | M-1189  | SW-H180   | X           |   |        |   |   |   | / |             |                                   |          |
| PIPING                 |              | M-1189  | RSW-H2175 | X           |   |        |   |   |   | / |             |                                   |          |
| PIPING                 |              | M-1189  | RSW-H2174 | X           |   |        |   |   |   | / |             |                                   |          |
| PIPING                 | STANCHION    | M-1189  | RSW-H9    | X           |   |        |   |   |   | / |             |                                   |          |
| PIPING                 |              | M-1189  | RSW-H2173 | X           |   |        |   |   |   | / |             |                                   |          |
| PIPING                 | DUAL SPRING  | M-1189  | SW-H176   | X           | X |        |   |   |   | / |             |                                   |          |
| PIPING                 | RIGID        | M-1189  | SW-H103A  | X           |   |        |   |   |   | / |             |                                   |          |

KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-B F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

| SUPPORTED<br>COMPONENT    | SUPPORT TYPE | DRAWING | IDENTITY | EXAMINATION |             |             |             |             |   |   | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST | COMMENTS |
|---------------------------|--------------|---------|----------|-------------|-------------|-------------|-------------|-------------|---|---|-------------|-----------------------------------|----------|
|                           |              |         |          | METHOD      |             | PERIOD      |             |             |   |   |             |                                   |          |
|                           |              |         |          | V<br>T<br>3 | V<br>T<br>4 | 1<br>S<br>T | 2<br>N<br>D | 3<br>R<br>D |   |   |             |                                   |          |
|                           |              |         |          | -           | -           | -           | -           | -           | - | - |             |                                   |          |
| PIPING                    | RIGID        | M-1189  | SW-H403  | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | RIGID        | M-1189  | SW-H103  | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | RIGID        | M-1189  | SW-H106  | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | ANCHOR       | M-1192  | SW-H210A | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H65   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H66   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H67   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H68   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H69   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H70   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H71   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H72   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H73   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H74   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H75   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H76   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H77   | X           |             |             |             |             |   | / |             |                                   |          |
| PIPING                    | HANGER       | M-1192  | SW-H78   | X           |             |             |             |             |   | / |             |                                   |          |
| DIESEL GEN. WTR JCKI CLR  | U-BOLTS      | M-1225  |          | X           |             |             |             |             |   | / |             |                                   |          |
| DIESEL GEN. COOLNG HXGR A | SUPPORT      | M-1225  |          | X           |             |             |             |             |   | / |             |                                   |          |
| DIESEL GEN. COOLNG HXGR B | SUPPORT      | M-1225  |          | X           |             |             |             |             |   |   |             |                                   |          |

EP-1

EF-1



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KEWAUNEE NUCLEAR POWER PLANT  
COMPONENT SUPPORT ISI EXAMINATION LIST

CATEGORY F-A F-E F-C

DESCRIPTION PLATE AND SHELL LINEAR AND COMPONENT STANDARD SUPPORTS

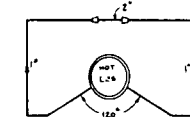
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| SUPPORTED<br>COMPONENT    | SUPPORT TYPE  | DRAWING | IDENTITY | EXAMINATION |   |        |   |   |             |                                   | COMMENTS |
|---------------------------|---------------|---------|----------|-------------|---|--------|---|---|-------------|-----------------------------------|----------|
|                           |               |         |          | METHOD      |   | PERIOD |   |   | E<br>O<br>I | EXEMPTION<br>OR RELIEF<br>REQUEST |          |
|                           |               |         |          | V           | V | 1      | 2 | 3 |             |                                   |          |
|                           |               |         |          | T           | T | S      | N | R |             |                                   |          |
| 3                         | 4             | T       | D        | D           |   |        |   |   |             |                                   |          |
| SERVICE WTR PUMP 1A1      | BASE SUPPORT  | M-1236  |          | X           |   |        |   |   | /           |                                   |          |
| SERVICE WTR PUMP 1A2      | BASE SUPPORT  | M-1236  |          | X           |   |        |   |   |             | EF-1                              |          |
| SERVICE WTR PUMP 1B1      | BASE SUPPORT  | M-1236  |          | X           |   |        |   |   |             | EF-1                              |          |
| SERVICE WTR PUMP 1B2      | BASE SUPPORT  | M-1236  |          | X           |   |        |   |   |             | EF-1                              |          |
| SERVICE WTR STRAINER A1   | BASE SUPPORT  | M-1220  |          | X           |   |        |   |   | /           |                                   |          |
| SERVICE WTR STRAINER A2   | BASE SUPPORT  | M-1220  |          | X           |   |        |   |   |             | EF-1                              |          |
| SERVICE WTR STRAINER B1   | BASE SUPPORT  | M-1220  |          | X           |   |        |   |   |             | EF-1                              |          |
| SERVICE WTR STRAINER B2   | BASE SUPPORT  | M-1220  |          | X           |   |        |   |   |             | EF-1                              |          |
| CONTAINMENT FAN COOLER 1A | SLING SUPPORT | M-1239  |          | X           |   |        |   |   | /           |                                   |          |
| CONTAINMENT FAN COOLER 1A | BASE SUPPORT  | M-1239  |          | X           |   |        |   |   | /           |                                   |          |
| CONTAINMENT FAN COOLER 1B | SLING SUPPORT | M-1239  |          | X           |   |        |   |   |             | EF-1                              |          |
| CONTAINMENT FAN COOLER 1B | BASE SUPPORT  | M-1239  |          | X           |   |        |   |   |             | EF-1                              |          |
| CONTAINMENT FAN COOLER 1C | SLING SUPPORT | M-1239  |          | X           |   |        |   |   |             | EF-1                              |          |
| CONTAINMENT FAN COOLER 1C | BASE SUPPORT  | M-1239  |          | X           |   |        |   |   |             | EF-1                              |          |
| CONTAINMENT FAN COOLER 1D | SLING SUPPORT | M-1239  |          | X           |   |        |   |   |             | EF-1                              |          |
| CONTAINMENT FAN COOLER 1D | BASE SUPPORT  | M-1239  |          | X           |   |        |   |   |             | EF-1                              |          |

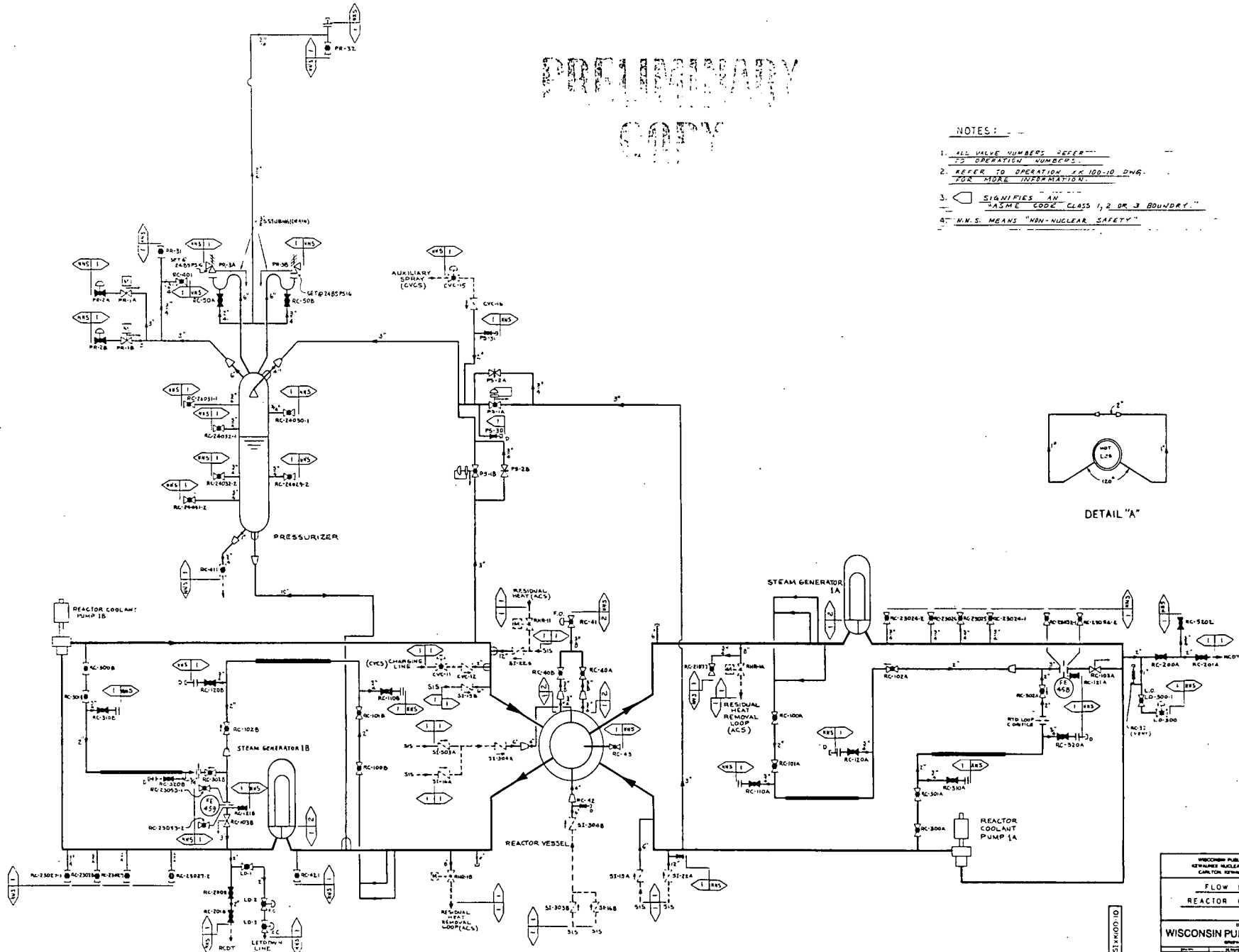
PRELIMINARY  
COPY

NOTES: -

1. ALL VALVE NUMBERS REFER TO OPERATION NUMBERS.
2. REFER TO OPERATION SK 100-10 DWS FOR MORE INFORMATION.
3.  SIGNIFIES AN "ASME CODE CLASS 1, 2 OR 3 BOUNDARY."
4. "N.N.S." MEANS "NON-NUCLEAR SAFETY"



DETAIL "A"



237127A-151 XK100-10

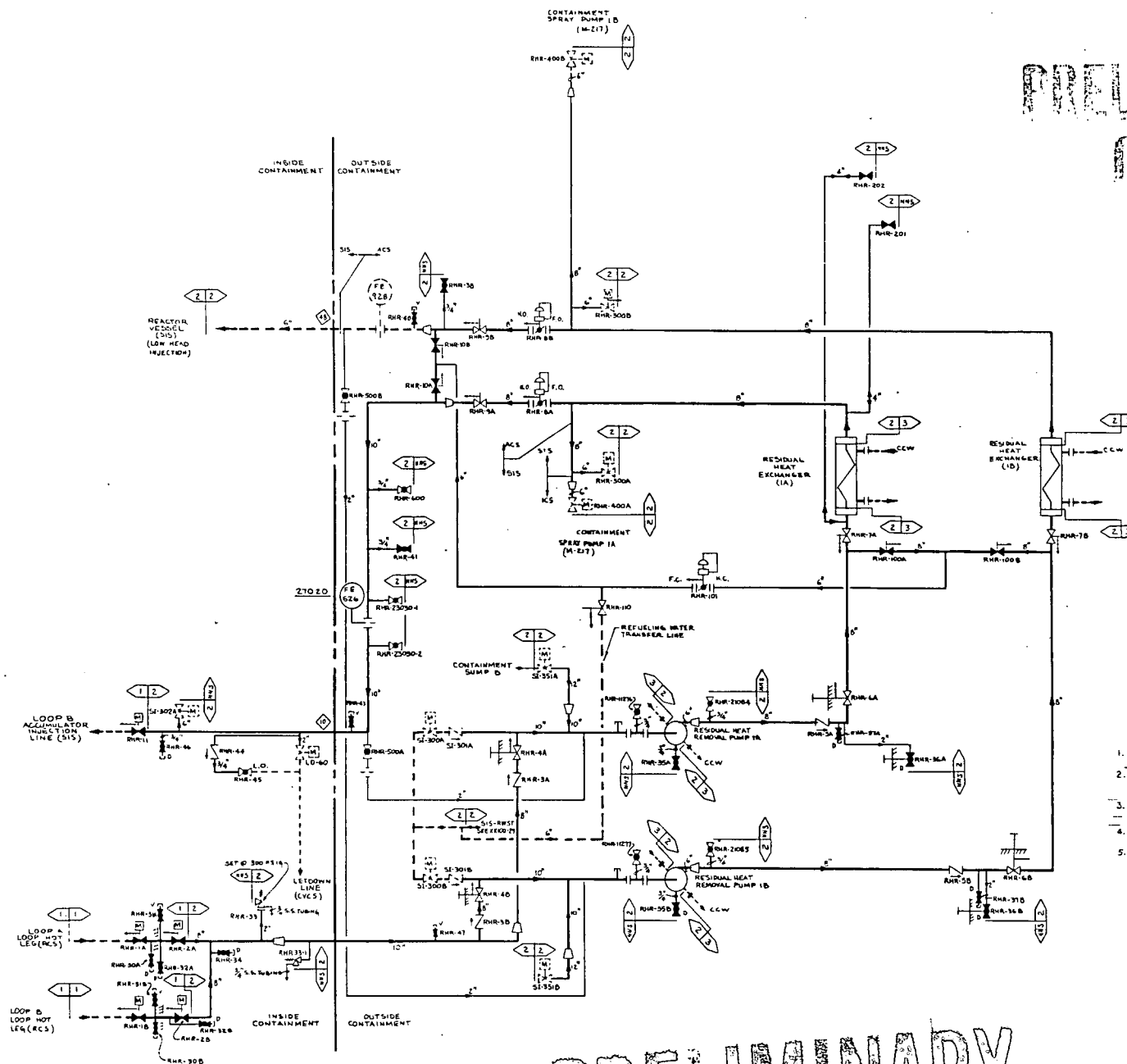
| REVISION | DATE | BY | CHKD |
|----------|------|----|------|
| 1        |      |    |      |
| 2        |      |    |      |
| 3        |      |    |      |
| 4        |      |    |      |
| 5        |      |    |      |
| 6        |      |    |      |
| 7        |      |    |      |
| 8        |      |    |      |
| 9        |      |    |      |
| 10       |      |    |      |

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT UNIT NO. 1  
CLAYTON KEWAUNEE COUNTY WISCONSIN

FLOW DIAGRAM  
REACTOR COOLANT SYSTEM

DESIGNED BY: WISCONSIN PUBLIC SERVICE CORPORATION  
CHECKED BY: [ ]  
APPROVED BY: [ ]  
PROJECT NUMBER: 237127A-151 XK100-10

PRELIMINARY  
COPY



PRELIMINARY  
COPY

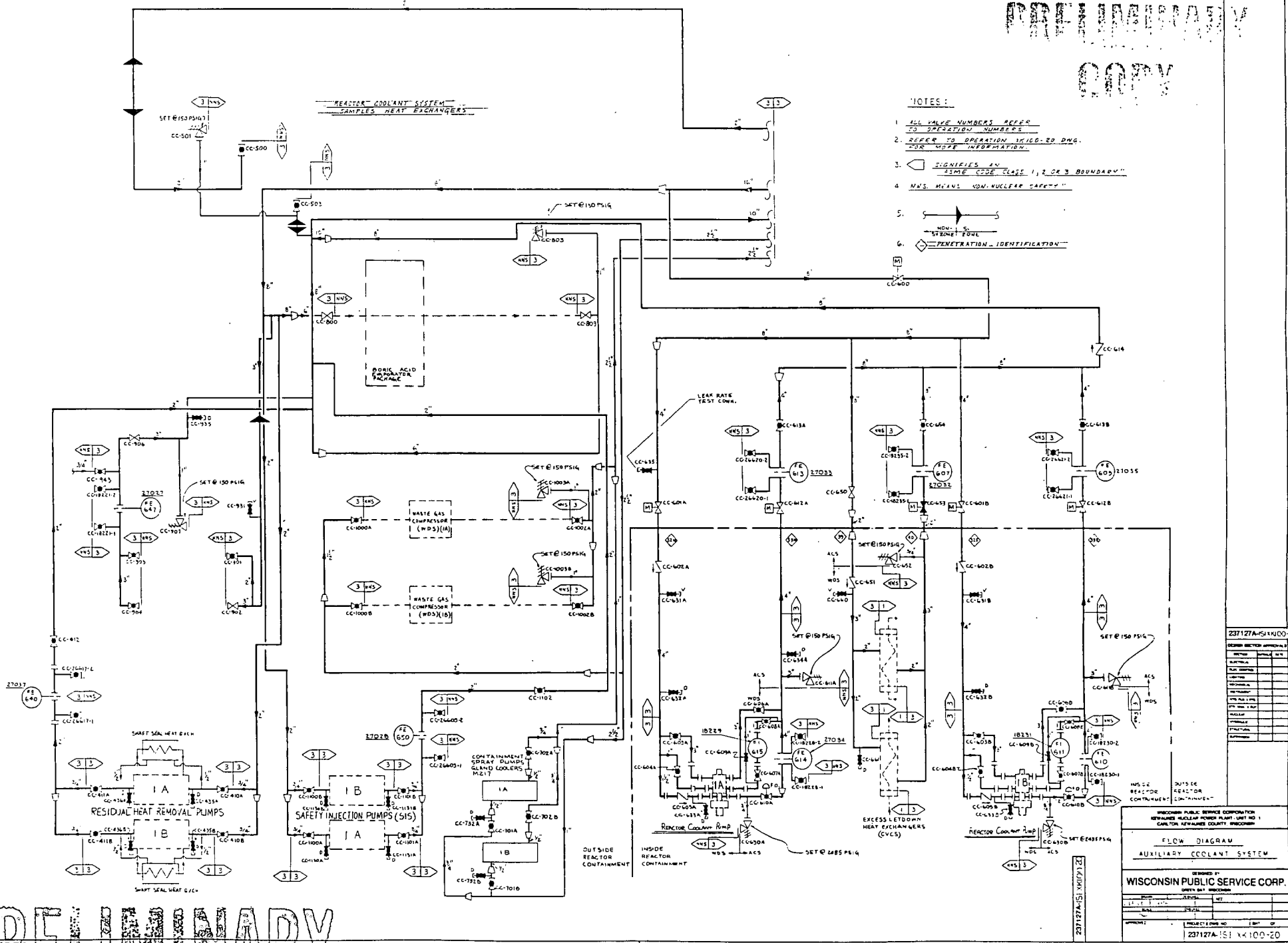
|                                                                                                                        |                        |
|------------------------------------------------------------------------------------------------------------------------|------------------------|
| WISCONSIN PUBLIC SERVICE CORPORATION<br>KEWAUNEE NUCLEAR POWER PLANT UNIT NO. 1<br>CALUMET, Kewaunee County, Wisconsin |                        |
| FLOW DIAGRAM<br>AUXILIARY COOLANT SYSTEM                                                                               |                        |
| DESIGNED BY: WISCONSIN PUBLIC SERVICE CORP.                                                                            |                        |
| DATE: 1-1-71                                                                                                           | BY: [Signature]        |
| APPROVED: [Signature]                                                                                                  | PROJECT NO. 237127A-SI |
| 237127A-SI XK100-18                                                                                                    |                        |



PRELIMINARY  
COPY

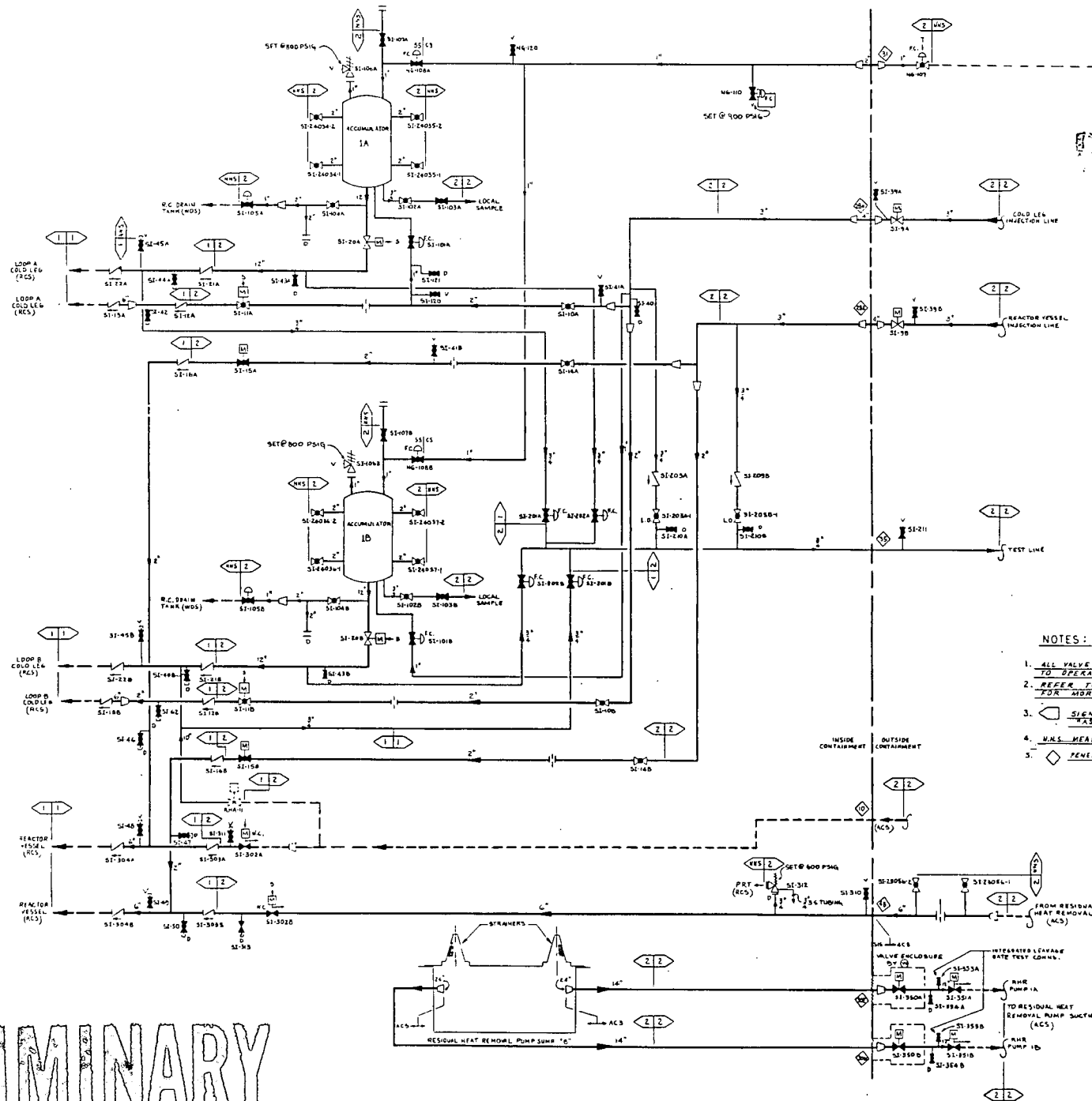
NOTES:

1. ALL VALVE NUMBERS REFER TO OPERATION NUMBERS
2. REFER TO OPERATION SKED-20 DNG. FOR MORE INFORMATION
3. SIGNIFIES AN NUCLEAR SAFETY BOUNDARY
4. NWS MEANS NON-NUCLEAR SAFETY
5. FLOW DIRECTION
6. PENETRATION IDENTIFICATION



PRELIMINARY  
COPY

PRELIMINARY  
COPY



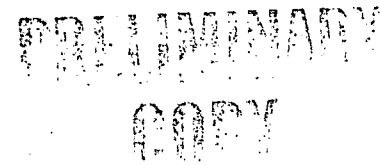
NOTES:

1. ALL VALVE NUMBERS REFER TO OPERATION NUMBERS.
2. REFER TO OPERATION XK100-28 DWS FOR MORE INFORMATION.
3. SIGNIFIES AN "ASSEMBLY CODE CLASS 1, 2 OR 3 BOUNDARY".
4. NWS MEANS "NON-NUCLEAR SAFETY".
5. PENETRATION IDENTIFICATION.

| DESIGN SECTION APPROVALS | DATE |
|--------------------------|------|
| DESIGNER                 |      |
| CHECKER                  |      |
| APPROVER                 |      |
| DATE                     |      |
| BY                       |      |
| FOR                      |      |
| REVISION                 |      |
| DATE                     |      |
| BY                       |      |
| FOR                      |      |

|                                                                                                                        |               |
|------------------------------------------------------------------------------------------------------------------------|---------------|
| WISCONSIN PUBLIC SERVICE CORPORATION<br>KEWAUNEE NUCLEAR POWER PLANT UNIT NO. 1<br>CARLTON, KEWAUNEE COUNTY, WISCONSIN |               |
| FLOW DIAGRAM<br>SAFETY INJECTION SYSTEM                                                                                |               |
| DESIGNED BY: WISCONSIN                                                                                                 |               |
| DATE: 1-1-68                                                                                                           | BY: HES       |
| PROJECT: 1000-28                                                                                                       | SHEET: 1 OF 1 |
| 237127A-151 XK100-28                                                                                                   |               |





1. ALL VALVE NUMBERS REFER TO OPERATION NUMBERS.
2. REFER TO OPERATION KR100-35 DWG. FOR MORE INFORMATION.
3.  SIGNIFIES AN  
\*ASME CODE CLASS 1, 2 OR 3 JOU.
4. V.N.S. MEANS "NON-NUCLEAR SAFETY"
5.  PENETRATION IDENTIFICATION

| 237127A-151XK100-35      |          |      |
|--------------------------|----------|------|
| OF 2200 SECTION APPROVED |          |      |
| SECTION                  | APPROVED | DATE |
| BLACK/WHITE              |          |      |
| IS DE COVERED            |          |      |
| LIGHTING                 |          |      |
| GEOMETRIC                |          |      |
| REPRODUCTION             |          |      |
| TYPE, SIZE, & DATE       |          |      |
| DATE                     |          |      |
| APPROVED                 |          |      |
| DATE                     |          |      |
| APPROVED                 |          |      |

WISCONSIN PUBLIC SERVICE CORPORATION  
RETAILER: REGULAR POWER PLANT UNIT NO. 1  
CARLTON, NEWMAN COUNTY, WISCONSIN

**FLOW DIAGRAM**

**CHEMICAL & VOLUME CONTROL SYSTEM**

DESIGNED BY: WISCONSIN PUBLIC SERVICE CORP.

DATE: MAY 1968

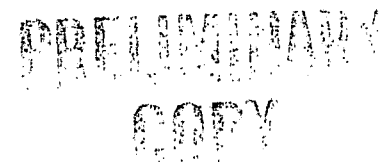
PROJECT NO. 1000-1000

APPROVED: [Signature] PROJECT & DRAW NO. 1000-1000

237127A-15 X 100-35

PRELIMINARY  
COPY





PRELIMINARY  
COPY

1. ALL VALVE NUMBERS REFER TO OPERATION NUMBERS.
2. REFER TO OPERATION SK100-36 OWG FOR MORE INFORMATION.
3.  SIGNIFIES AN "ASME CODE CLASS 1, 2 OR 3"
4. N.N.S. MEANS "NON-NUCLEAR SAFETY"

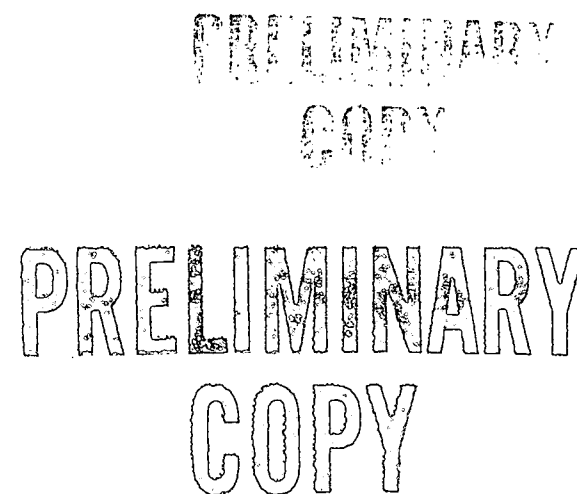
WISCONSIN PUBLIC SERVICE CORPORATION  
ESTIMATES NUCLEAR POWER PLANT UNIT NO. 1  
CAPTION: ESTIMATES COUNTY WISCONSIN

FLOW DIAGRAM  
CHEMICAL & VOLUME CONTROL SYSTEM

REVISION BY: WISCONSIN  
DATE: 12-1-68

237127A-151 XK100-36





1. ALL VALVE NUMBERS REFER  
TO OPERATION NUMBERS.
2. REFER TO OPERATION XK100-99 DWG.  
FOR MORE INFORMATION.
3.  SIGNIFIES AN  
"ASME CODE CLASS 1, 2 OR 3 BOUNDARY"
4. M.N.S. MEANS "NON-NUCLEAR SAFETY"

|                          |          |      |
|--------------------------|----------|------|
| 237127A-151XX100         |          |      |
| DESIGN SECTION APPROVALS |          |      |
| SECTION                  | INITIALS | DATE |
| STRUCTURE                |          |      |
| ELECTRICAL               |          |      |
| MACHINERY                |          |      |
| MECHANICAL               |          |      |
| PIPE, PUL & PIP          |          |      |
| WELDING                  |          |      |
| HYDRAULIC                |          |      |
| STEEL JOINT              |          |      |

1850

WISCONSIN PUBLIC SERVICE CORPORATION  
Kewaunee Nuclear Power Plant - Unit No. 1  
Kewaunee, Kewaunee County, Wisconsin

FLOW DIAGRAM  
SAMPLING SYSTEM

DATE: 02-06-82

WISCONSIN PUBLIC SERVICE CORPORATION  
SHEET 541 WISCONSIN

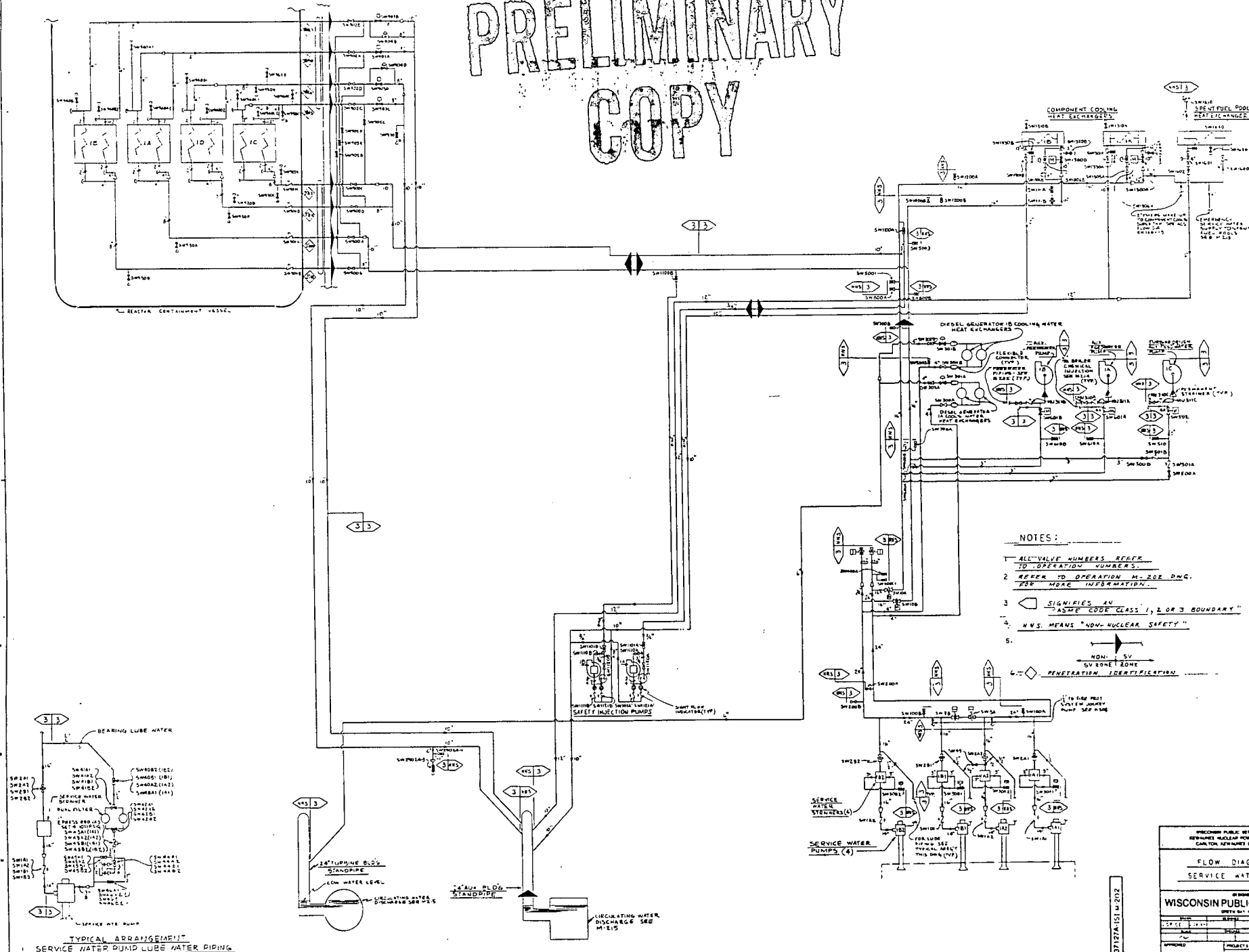
| FROM | TO | UNIT |
|------|----|------|
|      |    |      |
|      |    |      |
|      |    |      |
|      |    |      |

APPROVED \_\_\_\_\_

PROJECT & DRAW NO. \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_

237127A-[S] X 100-44

PRELIMINARY  
COPY



TYPICAL ARRANGEMENT  
SERVICE WATER PUMP LUBE WATER PIPING

NOTES :

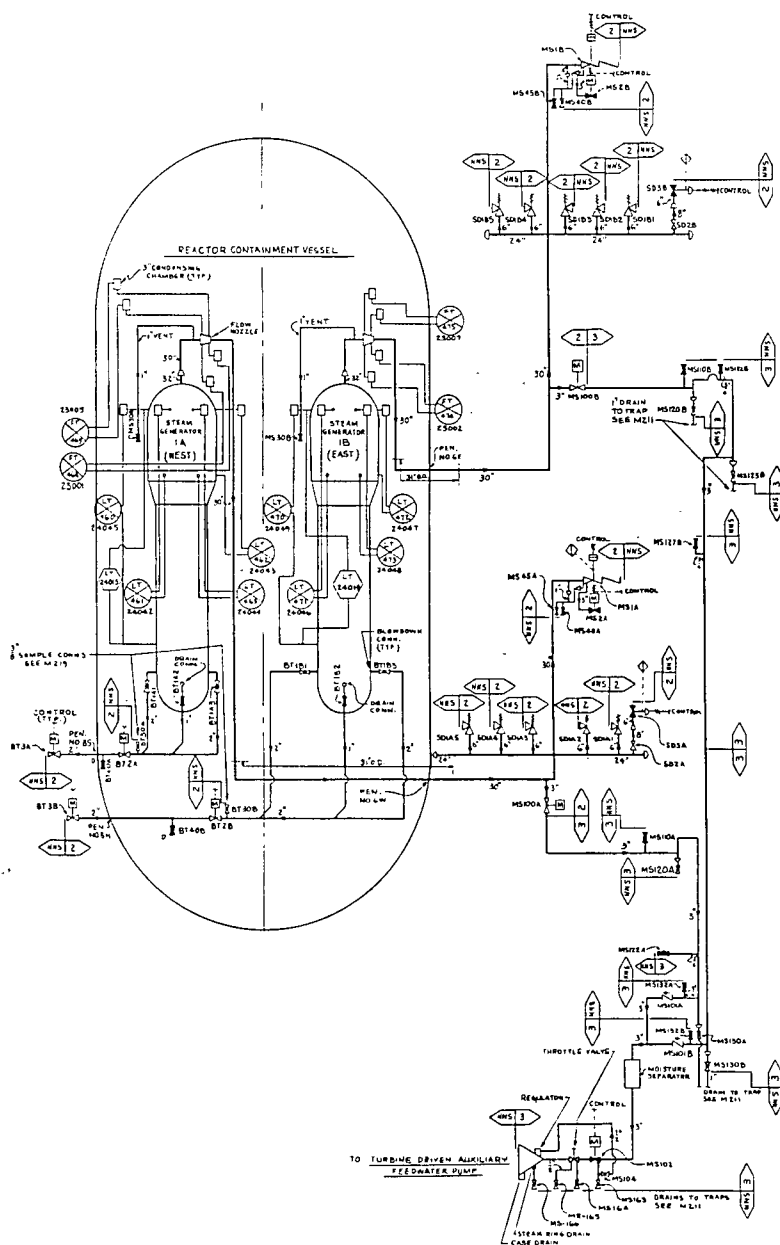
1. ALL "VALUE" NUMBERS REFER TO "OPERATION" NUMBERS.
2. REFER TO OPERATION M-208 DWG. FOR MORE INFORMATION.
3.  SIGNIFIES AN "ASST" CODE CLASS 1, 2 OR 3 BOUNDARY
4. NVS. MEANS "NON-NUCLEAR SAFETY"
5. 
6.  PENETRATION IDENTIFICATION

237127A-151 M-202

[illegible]

|                                                                                                                      |                        |                            |                        |
|----------------------------------------------------------------------------------------------------------------------|------------------------|----------------------------|------------------------|
| WISCONSIN PUBLIC SERVICE CORPORATION<br>REGISTERED NUCLEAR POWER PLANT UNIT NO. 2<br>CAHON, KENNAH COUNTY, WISCONSIN |                        |                            |                        |
| <u>FLOW DIAGRAM</u><br><u>SERVICE WATER SYSTEM</u>                                                                   |                        |                            |                        |
| DESIGNED BY<br><b>WISCONSIN PUBLIC SERVICE CORP.</b><br>(SHEET 5 OF 10) WISCONSIN                                    |                        |                            |                        |
| DRAWN<br>BY<br>DATE                                                                                                  | DESIGNED<br>BY<br>DATE | CHECKED<br>BY<br>DATE      | APPROVED<br>BY<br>DATE |
| [ ]<br>[ ]<br>[ ]                                                                                                    | [ ]<br>[ ]<br>[ ]      | [ ]<br>[ ]<br>[ ]          | [ ]<br>[ ]<br>[ ]      |
| APPROVED<br>[ ]                                                                                                      |                        | PROJECT NO. 151<br>151-200 |                        |

PRELIMINARY  
COPY



NOTES:

1. ALL VALVE NUMBERS REFER TO OPERATION NUMBERS.
2. REFER TO OPERATION M-203 DMG FOR MORE INFORMATION.
3. SIGNIFIES AN ASME CODE CLASS 1, 2 OR 3 BOUNDARY.
4. NNS MEANS "NON-NUCLEAR SAFETY".

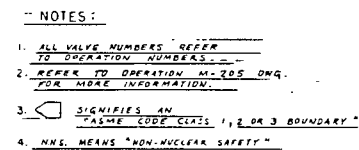
237127A-151 M-203

| DESIGN SECTION APPROVAL | DATE | INITIALS |
|-------------------------|------|----------|
| DESIGNER                |      |          |
| CHECKER                 |      |          |
| APPROVER                |      |          |
| REVIEWER                |      |          |
| DESIGNER                |      |          |
| CHECKER                 |      |          |
| APPROVER                |      |          |
| REVIEWER                |      |          |

|                                                                                                                          |                    |      |    |
|--------------------------------------------------------------------------------------------------------------------------|--------------------|------|----|
| WISCONSIN PUBLIC SERVICE CORPORATION<br>REDAUNTED NUCLEAR POWER PLANT UNIT NO. 1<br>EARTHQUAKE SEISMIC COUNTY, WISCONSIN |                    |      |    |
| FLOW DIAGRAM<br>MAIN, AUXILIARY STEAM AND STEAM DUMP                                                                     |                    |      |    |
| DESIGNED BY<br>WISCONSIN PUBLIC SERVICE CORP.                                                                            |                    |      |    |
| DATE                                                                                                                     | BY                 | CHK  |    |
| 237127A-151                                                                                                              | MS                 | MS   |    |
| APPROVED                                                                                                                 | PROJECT & DRAW NO. | DATE | CP |
|                                                                                                                          | 237127A-151 M-203  |      |    |

237127A-151 M-203

PRELIMINARY  
COPY



WISCONSIN PUBLIC SERVICE CORPORATION  
REMAINS NUCLEAR POWER PLANT - UNIT NO. 1  
CAPLON, REMAINE COUNTY, WISCONSIN

FLOW DIAGRAM  
FEE DRAIN SYSTEM

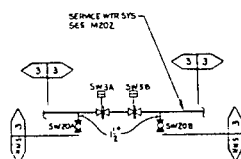
ON BEHALF OF:  
WISCONSIN PUBLIC SERVICE CORP.  
GREEN BAY WISCONSIN

|      |         |      |
|------|---------|------|
| NAME | SUBJECT | DATE |
| ASAP |         |      |
| NAME | SUBJECT |      |

APPROVED: PROJECT ENGINEER DATE OF

237127A-151 M-205

# PRELIMINARY COPY



## NOTES:

1. ALL VALVE NUMBERS REFER TO OPERATION NUMBERS.
2. REFER TO OPERATION M-208 DNG. FOR MORE INFORMATION.
3. SIGNIFIES AN "ASME CODE CLASS 1, 2 OR 3 BOUNDARY".
4. NWS MEANS "NON-NUCLEAR SAFETY".

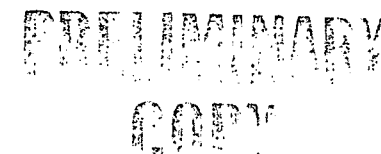
237127A-1S1 M-208

| DESIGN SECTION APPROVALS | DATE | INITIALS |
|--------------------------|------|----------|
| DESIGNER                 |      |          |
| CHECKED                  |      |          |
| APPROVED                 |      |          |
| DATE                     |      |          |
| BY                       |      |          |
| FOR                      |      |          |
| REVISION                 |      |          |
| DATE                     |      |          |
| BY                       |      |          |
| FOR                      |      |          |
| REVISION                 |      |          |
| DATE                     |      |          |
| BY                       |      |          |
| FOR                      |      |          |

|                                                                                                                         |              |
|-------------------------------------------------------------------------------------------------------------------------|--------------|
| WISCONSIN PUBLIC SERVICE CORPORATION<br>KEWAUNEE NUCLEAR POWER PLANT, UNIT NO. 1<br>CARLTON, KEWAUNEE COUNTY, WISCONSIN |              |
| FLOW DIAGRAM<br>FIRE PROTECTION SYSTEM                                                                                  |              |
| DESIGNED BY: WISCONSIN PUBLIC SERVICE CORP.                                                                             |              |
| DATE: 11-1-64                                                                                                           | BY: JCH      |
| PROJECT NO. 237127A-1S1 M-208                                                                                           | SHEET 1 OF 1 |







NOTES :

1. ALL VALVE NUMBERS REFER TO OPERATION NUMBERS.
2. REFER TO OPERATION M-218 DWG. FOR MORE INFORMATION.
3.  SIGNIFIES AN "ASME CODE CLASS 1, 2 OR 3 BOUNDARY"
4. N.N.S. MEANS "NON-NUCLEAR SAFETY"

|                            |          |      |
|----------------------------|----------|------|
| 237127A-151 M211           |          |      |
| SEE INDEX SECTION APPROVAL |          |      |
| SECTION                    | APPROVAL | DATE |
| STRUCTURAL                 |          |      |
| ELECTRICAL                 |          |      |
| MECHANICAL                 |          |      |
| HYDRAULIC                  |          |      |
| PIPE AND FITTING           |          |      |
| WELDING                    |          |      |
| PAINTING                   |          |      |
| INSULATION                 |          |      |
| FINISHING                  |          |      |
| OTHER                      |          |      |

WISCONSIN PUBLIC SERVICE CORPORATION  
GENERALIZED NUCLEAR POWER PLANT - UNIT NO. 1  
CAPLTON, KENOSHA COUNTY, WISCONSIN

FLOW DIAGRAM

SPENT FUEL POOL COOLING  
AND CLEAN-UP SYSTEM

DE ENGINE #1

WISCONSIN PUBLIC SERVICE CORPORATION  
SHEET 541 - WISCONSIN

| REVISION | DATE    | BY  |
|----------|---------|-----|
| 1        | 10/1/74 | WES |
| 2        | 10/1/74 | WES |
| 3        | 10/1/74 | WES |

APPROVED \_\_\_\_\_ PROJECT & DESIGN INC. 10/1/74 CP

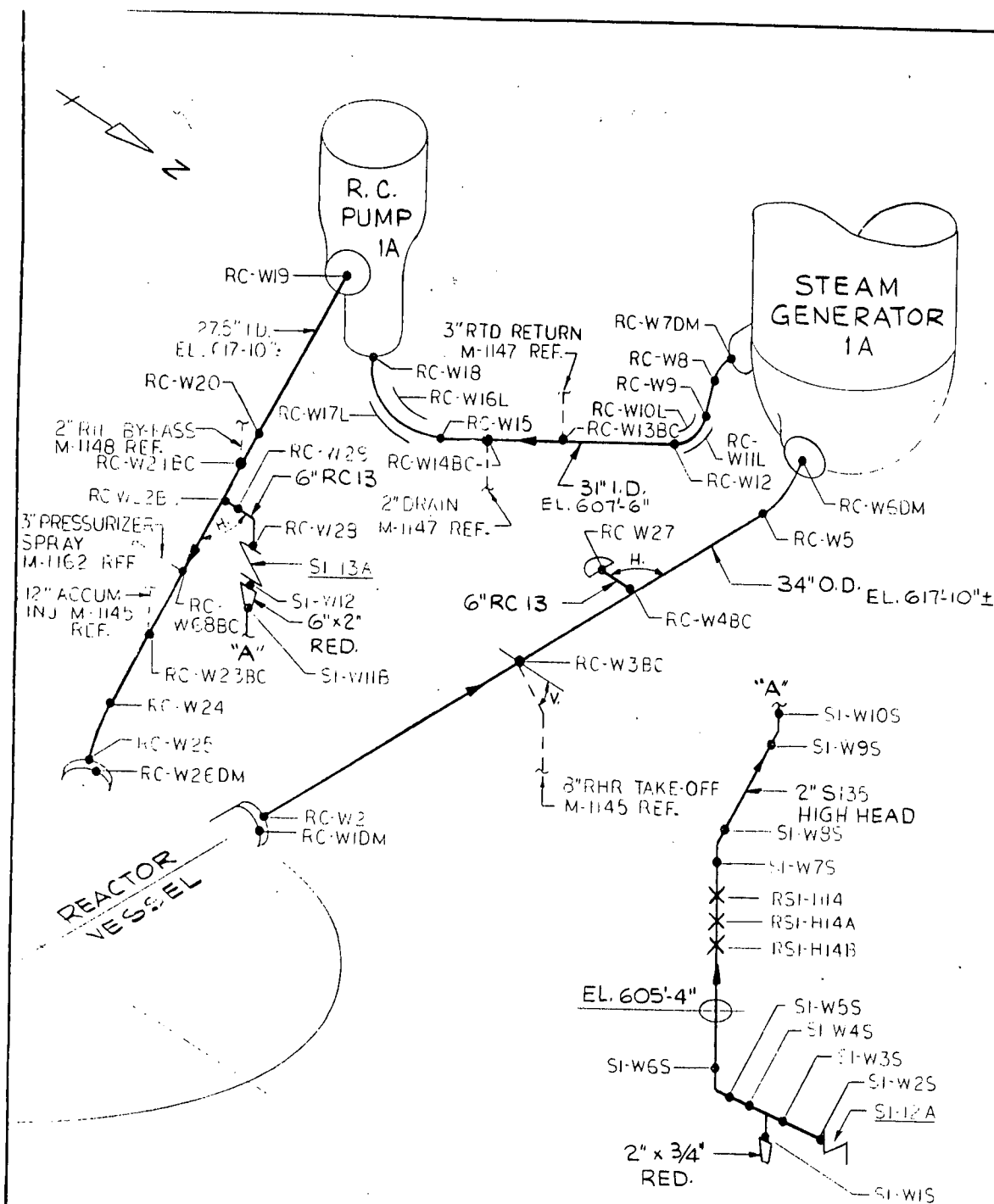
237127A-K1 W-218

# REVISIONS

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CLASS I



WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

INSERVICE INSPECTION ISOMETRIC  
LOOP A - REACTOR COOLANT (RC)  
SAFETY INJECTION HIGH HEAD (SI)  
PLOCAP

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                    |        |
|----------|--------------------|--------|
| DRAWN    | DESIGNED           | AED    |
| SCALE    | CHECKED            |        |
| NONE     |                    |        |
| APPROVED | PROJECT & DWG. NO. | SHT OF |
|          | 237127A-           | M-1144 |

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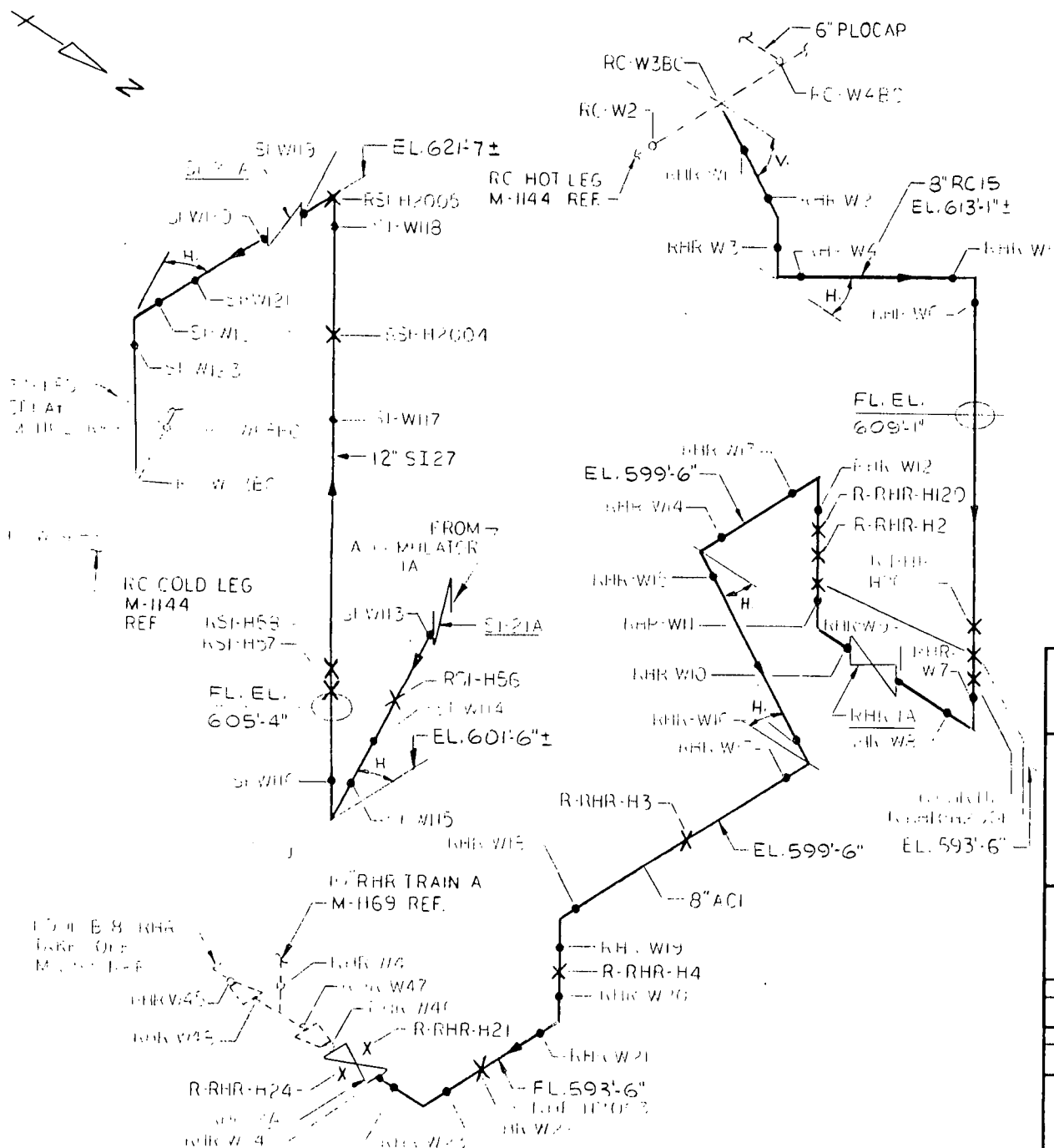
CLASS I

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

INSERVICE INSPECTION ISOMETRIC  
LOOP A - ACCUMULATOR INJECTION (SI)  
RESIDUAL HEAT REMOVAL  
TAKE-OFF (RHR)

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                    |        |
|----------|--------------------|--------|
| DRAWN    | DESIGNED           | AED    |
| SCALE    | CHECKED            |        |
| NONE     |                    |        |
| APPROVED | PROJECT & DWG. NO. | SHT OF |
|          | 237127A- M-1145    |        |

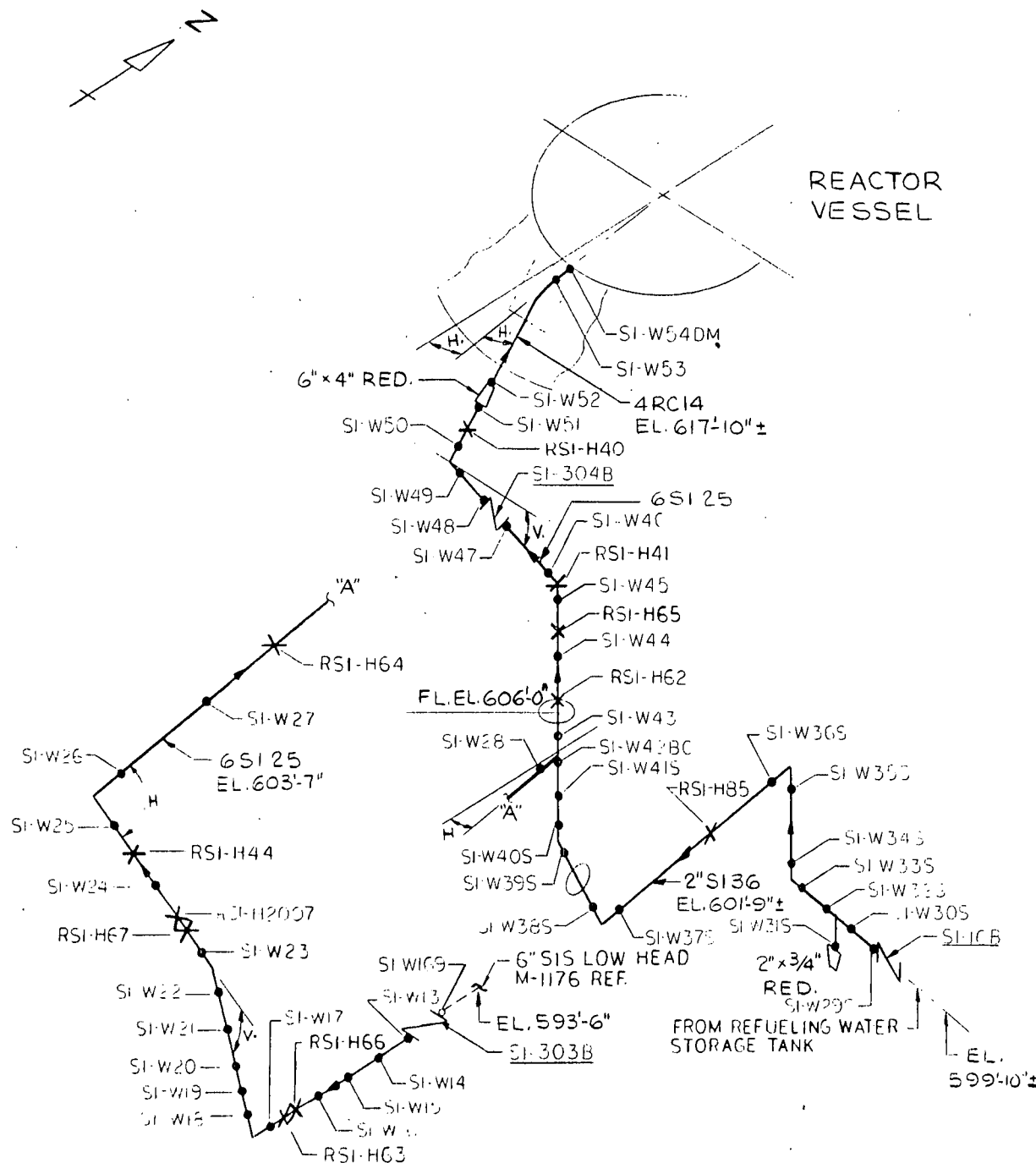


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CLASS I



WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

## INSERVICE INSPECTION ISOMETRIC SAFETY INJECTION LOW HEAD (SI) TRAIN B

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

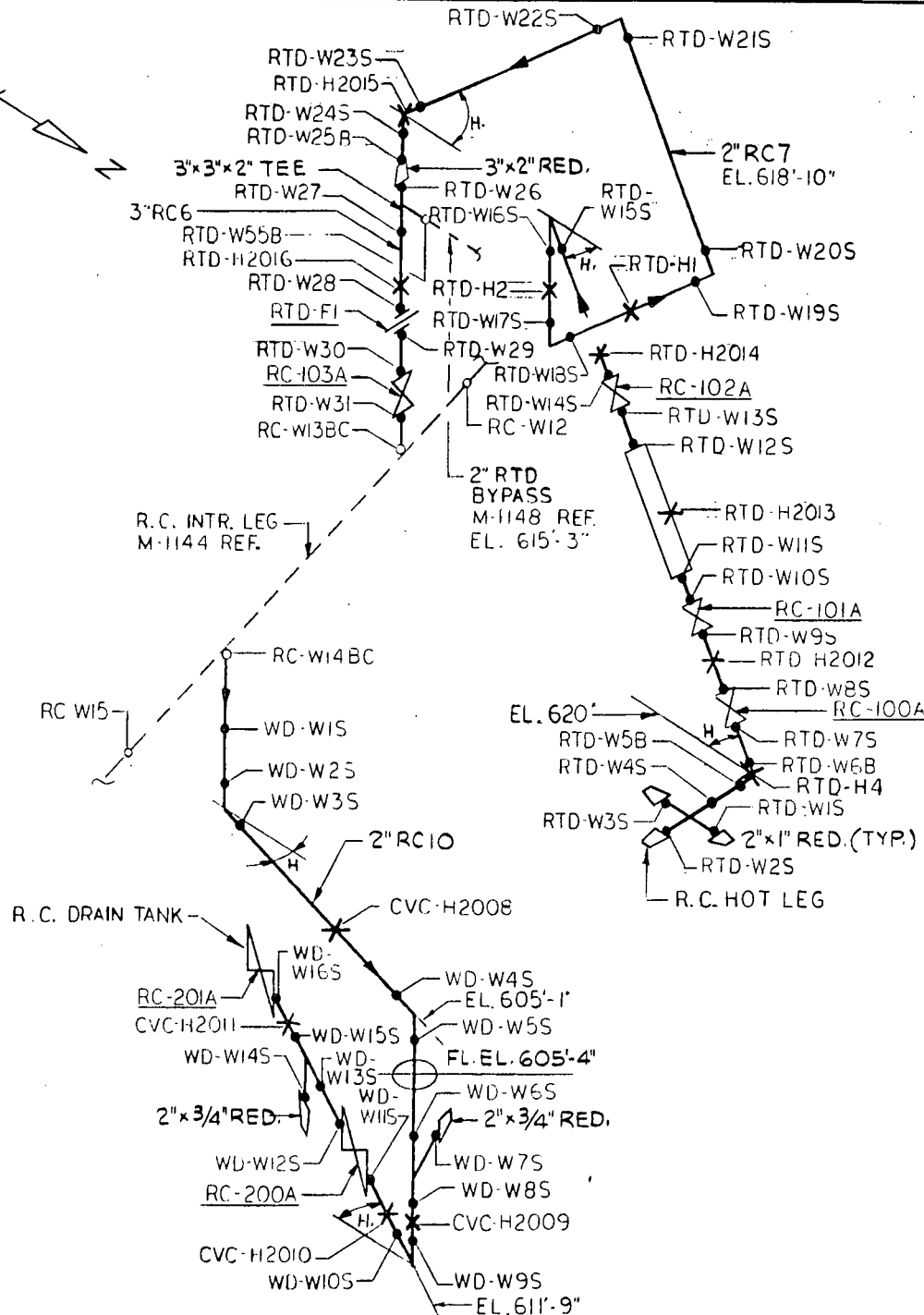
|          |                    |        |    |
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| DRAWN    | DESIGNED           | AED    |    |
| SCALE    | CHECKED            |        |    |
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| APPROVED | PROJECT & DWG. NO. | SHT    | OF |
|          | 237127A-           | M-1146 |    |

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CLASS I

## REVISIONS



WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

INSERVICE INSPECTION ISOMETRIC  
LOOP A - REACTOR TEMPERATURE  
DETECTION RETURN (RTD)  
REACTOR COOLANT DRAIN (WD)

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

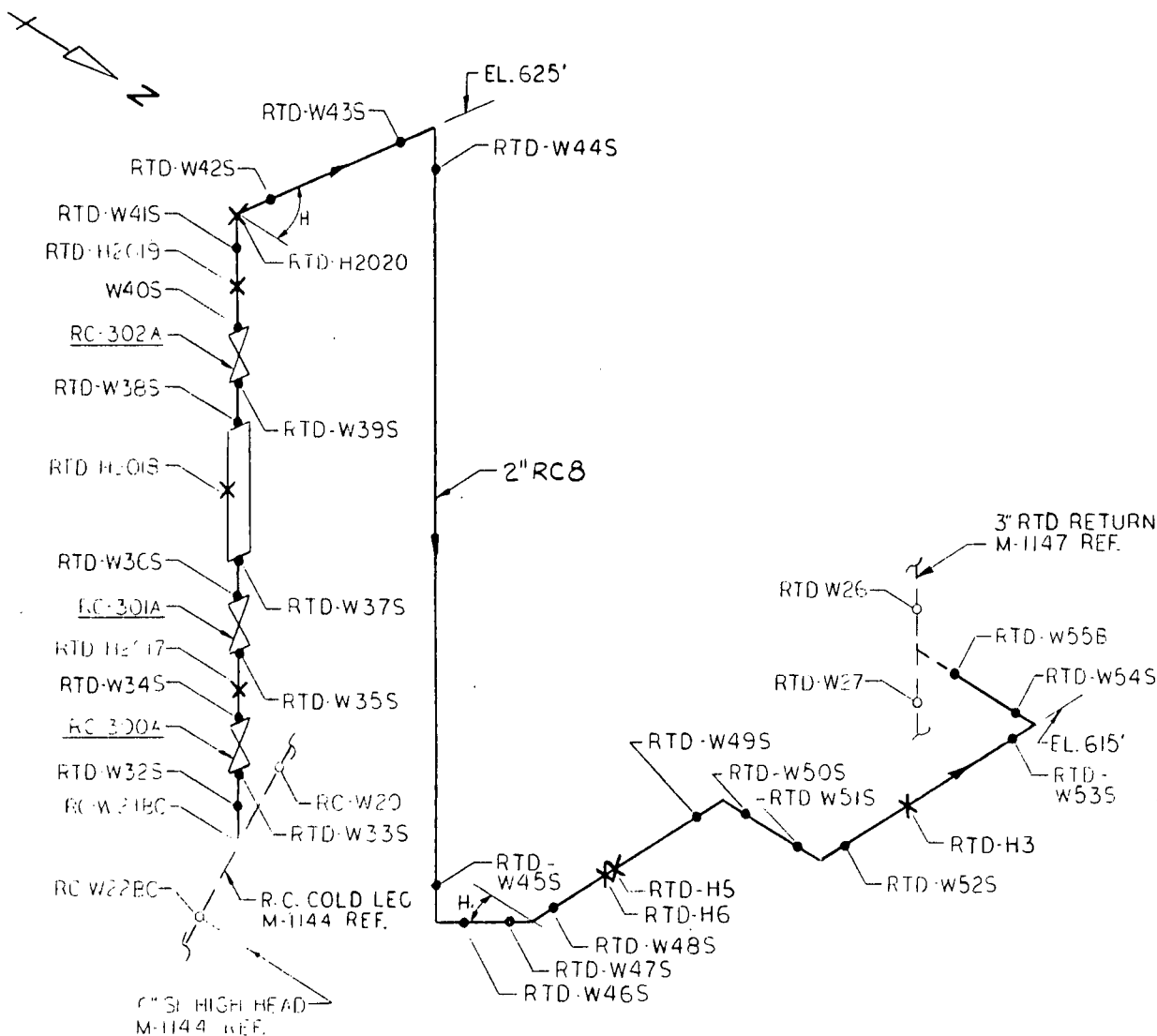
|          |                    |        |    |
|----------|--------------------|--------|----|
| DRAWN    | DESIGNED           | AED    |    |
| SCALE    | CHECKED            |        |    |
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| APPROVED | PROJECT & DWG. NO. | SHT    | OF |
|          | 237127A-           | M-1147 |    |

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WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

INSERVICE INSPECTION ISOMETRIC  
LOOP A - REACTOR TEMPERATURE  
DETECTION BY-PASS (RTD)

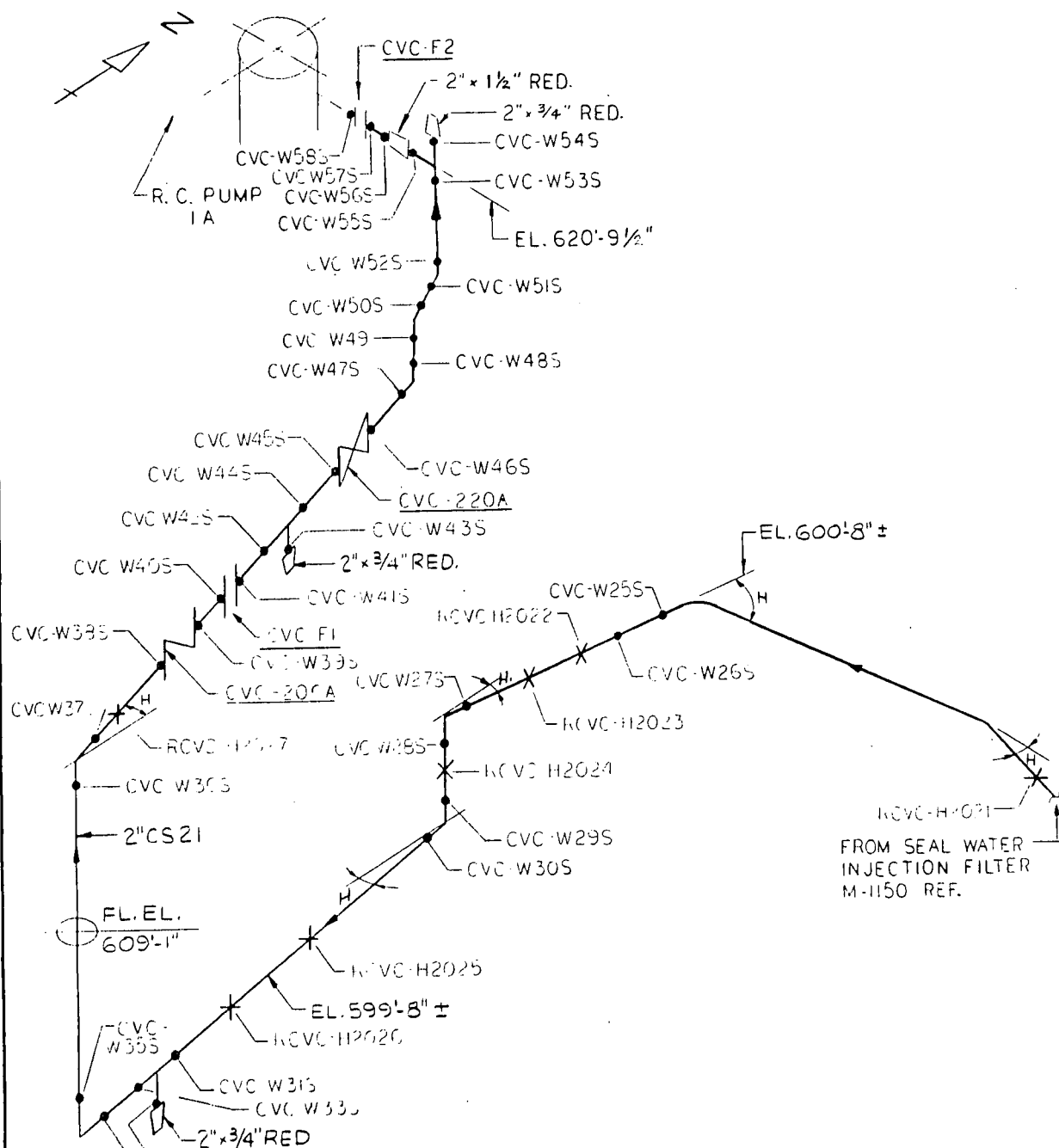
DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                    |        |    |
|----------|--------------------|--------|----|
| DRAWN    | DESIGNED           | AED    |    |
| 01/10/13 |                    |        |    |
| SCALE    | CHECKED            |        |    |
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| APPROVED | PROJECT & DWG. NO. | SHT    | OF |
|          | 237127A-           | M-1148 |    |

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X - COMPONENT SUPPORT

CLASS I



WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

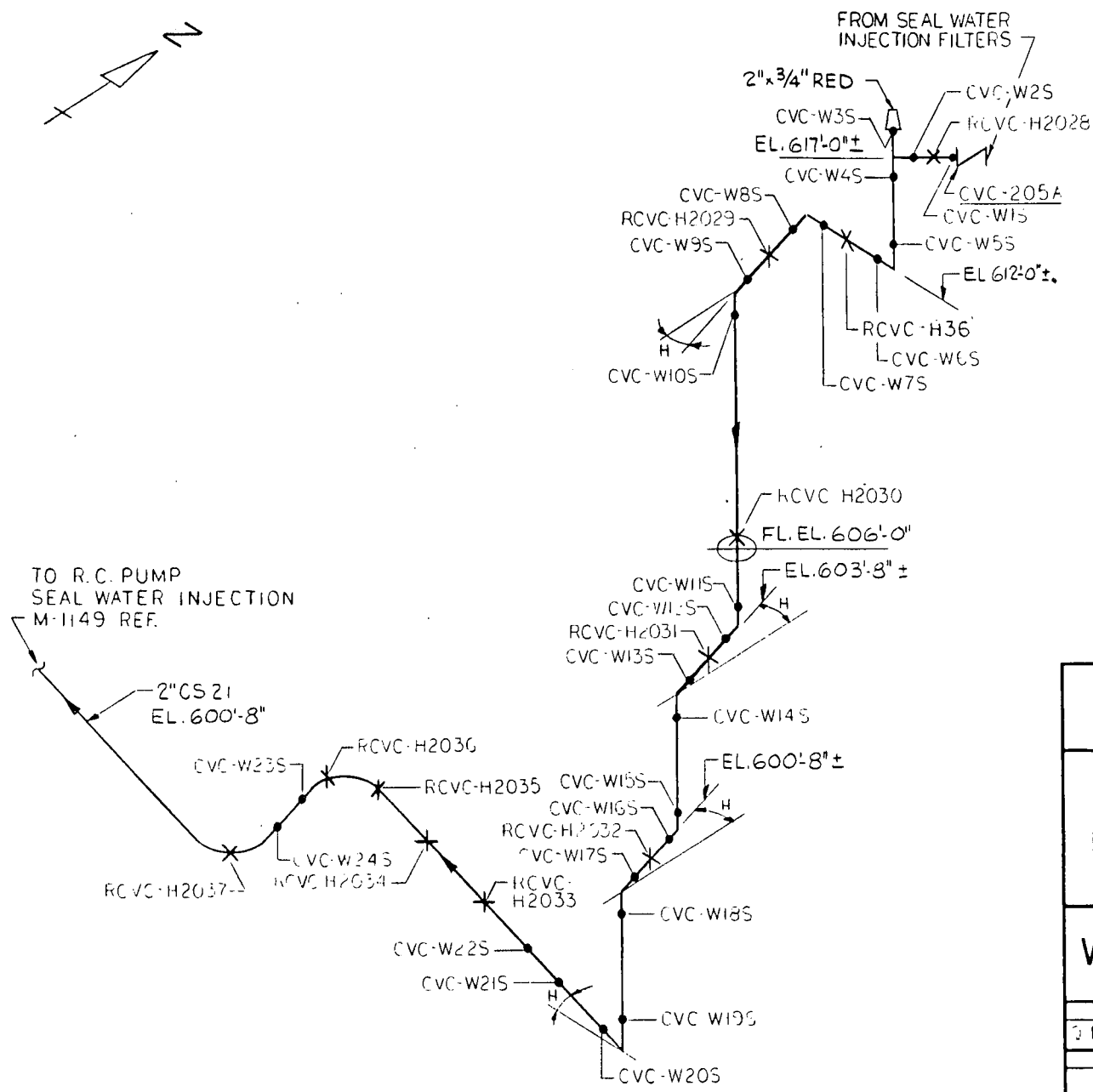
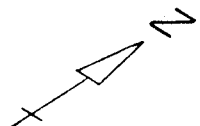
INSERVICE INSPECTION ISOMETRIC  
LOOP A- SEAL INJECTION (CVC)

DESIGNED BY

WISCONSIN PUBLIC SERVICE CORP.

GREEN BAY, WISCONSIN

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|----------|---|----------|-------------------|-----|--------|
| DRAWN    |   | DESIGNED |                   | AED |        |
| 215      | 1 | 103      |                   |     |        |
| SCALE    |   | CHECKED  |                   |     |        |
| NONE     |   |          |                   |     |        |
| APPROVED |   |          | PROJECT & DWG. NO |     | SHT OF |
|          |   |          | 237127A- M-1149   |     |        |



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CLASS I

REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC**

**LOOP A - SEAL INJECTION (CVC)**

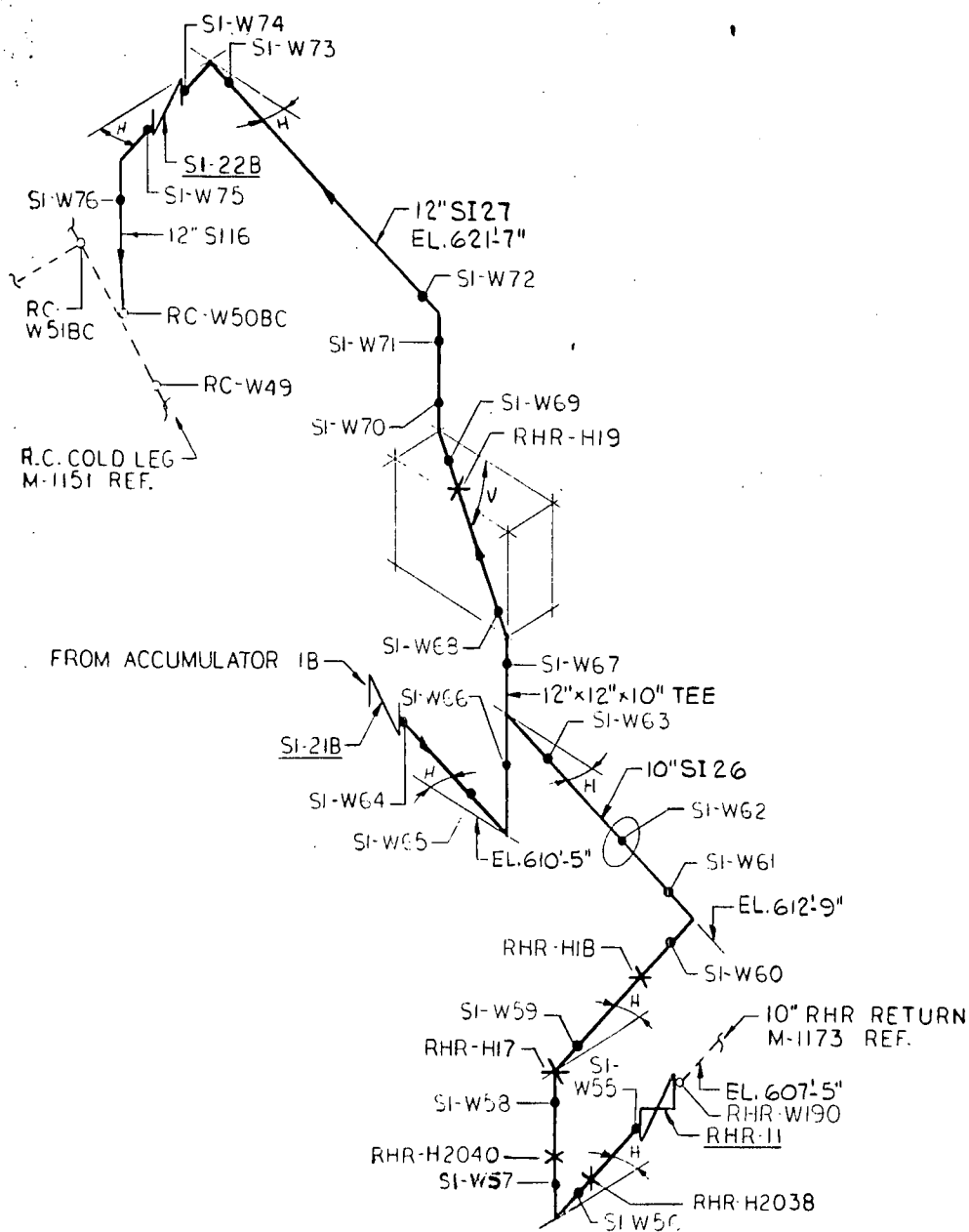
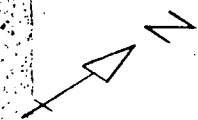
DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |          |     |
|----------|----------|-----|
| DRAWN    | DESIGNED | AED |
| 21/11/83 |          |     |
| SCALE    | CHECKED  |     |
| NONE     |          |     |

|          |                    |     |    |
|----------|--------------------|-----|----|
| APPROVED | PROJECT & DWG. NO. | SHT | OF |
|          | 237127A- M-1150    |     |    |







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CLASS I

# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

## INSERVICE INSPECTION ISOMETRIC LOOP B - ACCUMULATOR INJECTION (SI) RESIDUAL HEAT REMOVAL RETURN (RHR)

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**

GREEN BAY, WISCONSIN

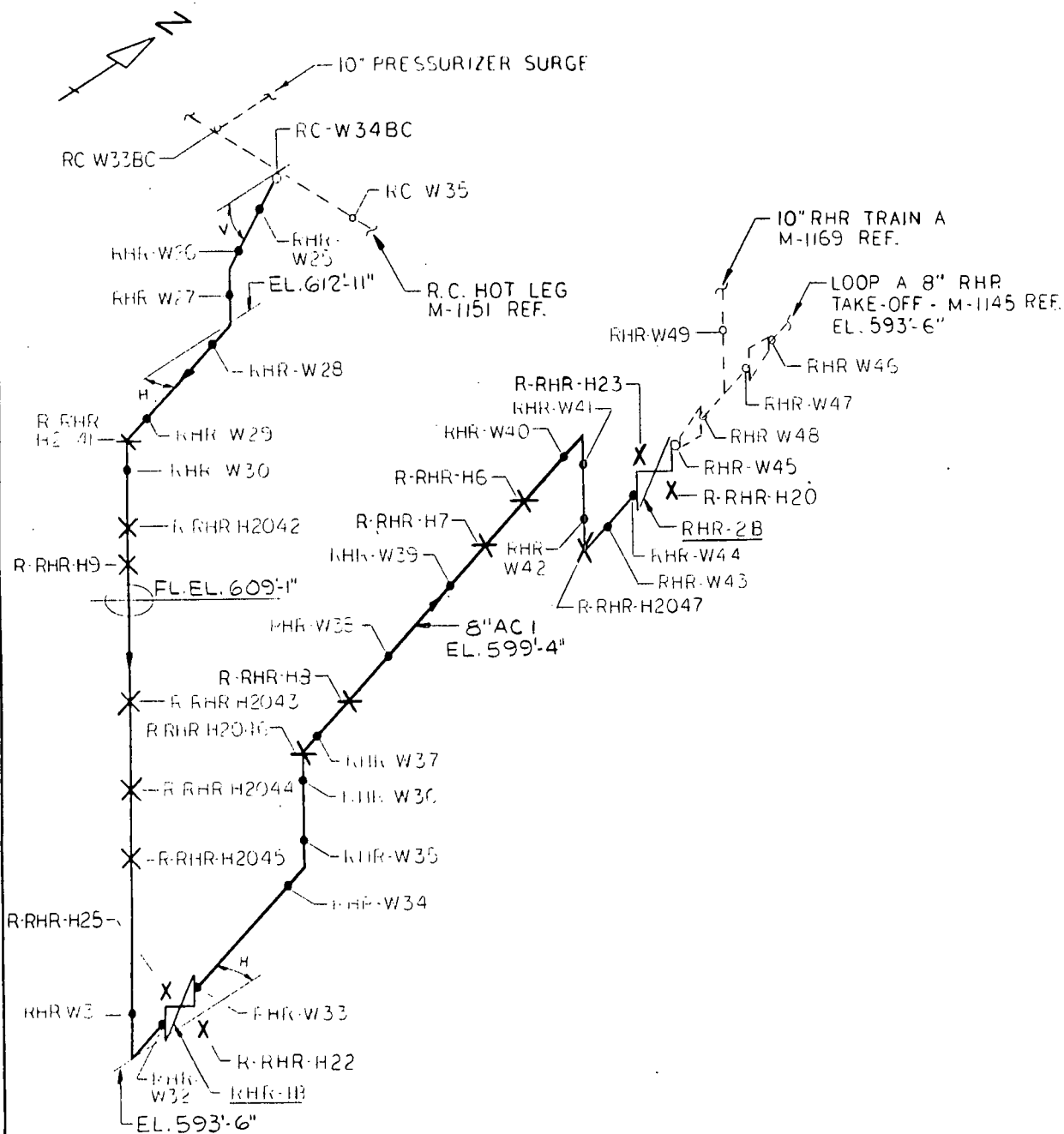
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| Q.R. / DS 113 83 |                    |        |
| SCALE            | CHECKED            |        |
| NONE             | D.M. 1-17-83       |        |
| APPROVED         | PROJECT & DWG. NO. | SHT OF |
|                  | 237127A- M-1152    |        |

# REVISIONS

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X - COMPONENT SUPPORT

CLASS I

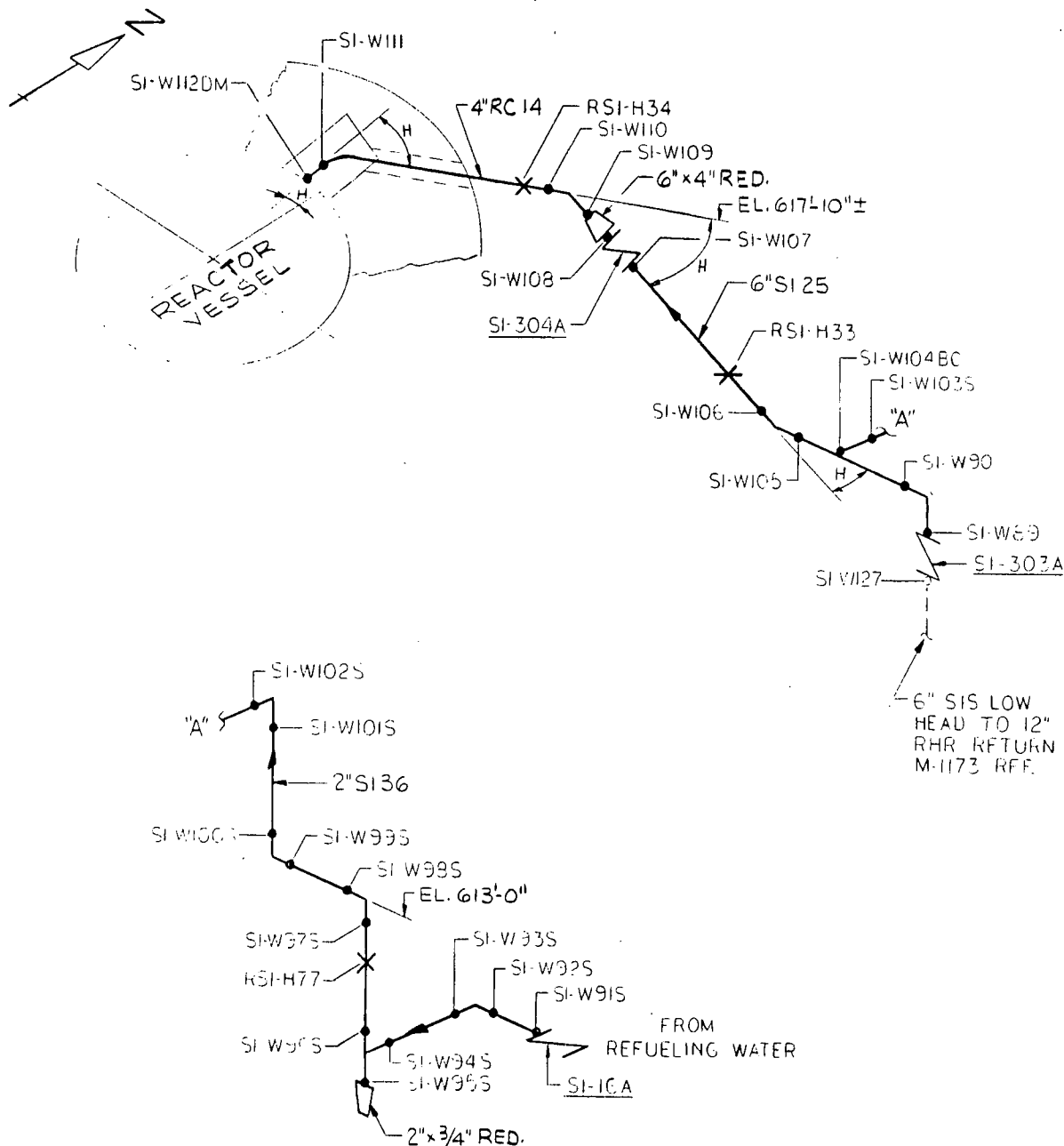


WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

INSERVICE INSPECTION ISOMETRIC  
LOOP B - RESIDUAL HEAT REMOVAL  
TAKE - OFF (RHR)

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                  |        |    |
|----------|------------------|--------|----|
| DRAWN    | DESIGNED         | AED    |    |
| SCALE    | CHECKED          |        |    |
| NONE     |                  |        |    |
| APPROVED | PROJECT & DWG NO | SHT    | OF |
|          | 237127A-         | M-1153 |    |



**PRELIMINARY  
COPY**

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X - COMPONENT SUPPORT

CLASS I

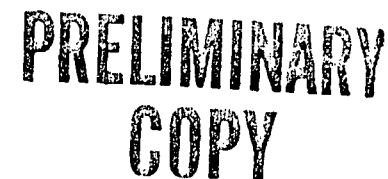
# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

## INSERVICE INSPECTION ISOMETRIC SAFETY INJECTION LOW HEAD (SI) TRAIN A

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|           |                    |        |
|-----------|--------------------|--------|
| DRAWN     | DESIGNED           | AED    |
| 2R/1 1128 |                    |        |
| SCALE     | CHECKED            |        |
| NONE      |                    |        |
| APPROVED  | PROJECT & DWG. NO. | SHT OF |
|           | 237127A-           | M-1154 |



CLASS I

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

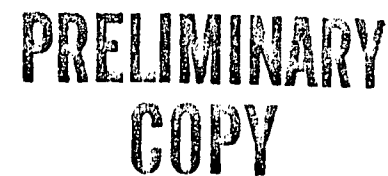
INSERVICE INSPECTION ISOMETRIC  
LOOP B - REACTOR TEMPERATURE  
DETECTION (RTD) RETURN  
AND BY-PASS

DESIGNED BY

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**

GREEN BAY, WISCONSIN

|          |         |          |                  |     |        |
|----------|---------|----------|------------------|-----|--------|
| DRAWN    |         | DESIGNED |                  | AED |        |
| 10/1/81  | 10/1/81 |          |                  |     |        |
| SCALE    |         | CHECKED  |                  |     |        |
| NONE     |         |          |                  |     |        |
| APPROVED |         |          | PROJECT & DWG NO |     | SHT OF |
|          |         |          | 237127A-         |     | M-1155 |



CLASS I

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

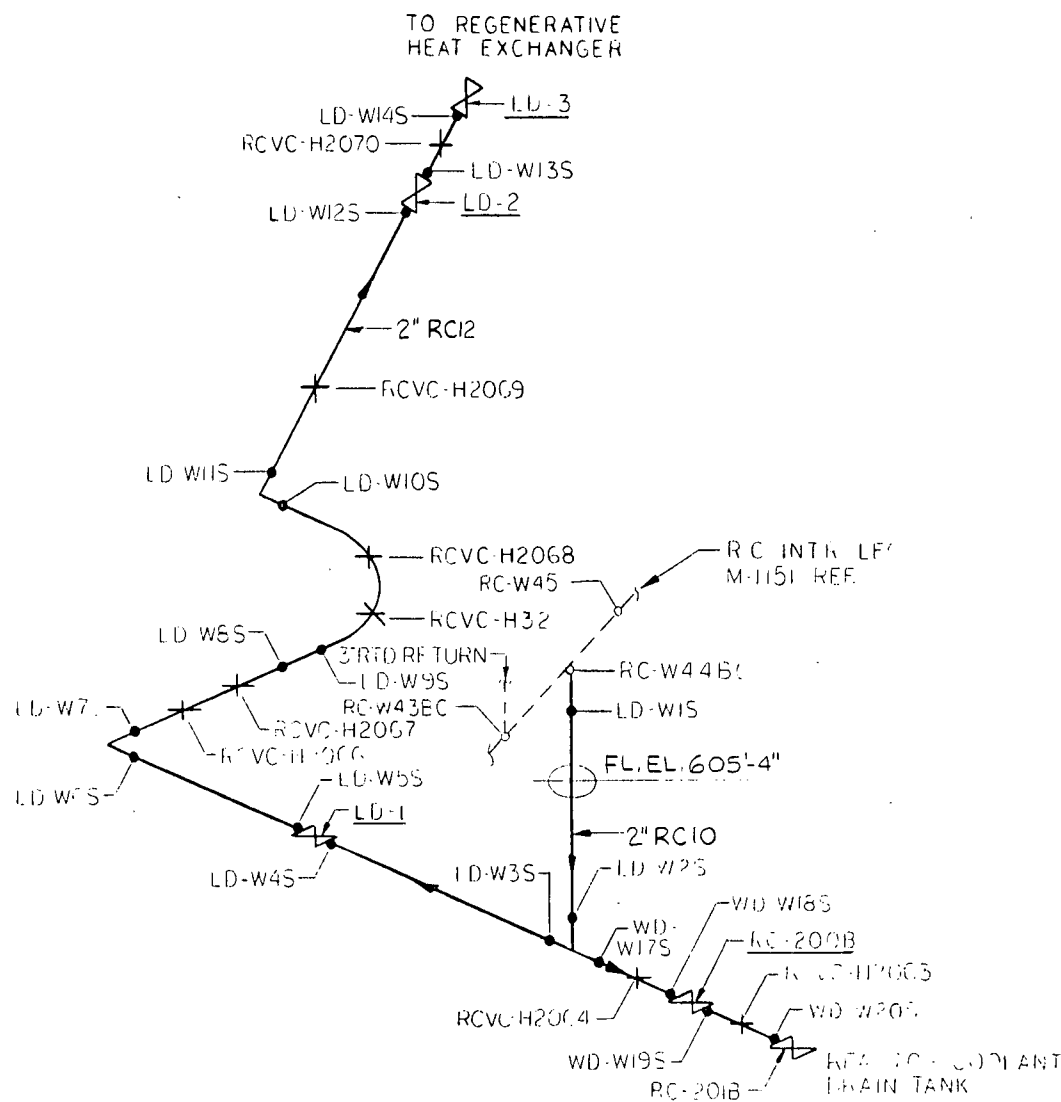
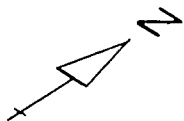
LOOP B- CHARGING (CVC)

WISCONSIN PUBLIC SERVICE CORP.

|       |       |          |  |     |  |
|-------|-------|----------|--|-----|--|
| DRAWN |       | DESIGNED |  | AED |  |
| 06/   | 11327 |          |  |     |  |
| SCALE |       | CHECKED  |  |     |  |
| NOT   |       |          |  |     |  |

|     |    |
|-----|----|
| SHT | OF |
|-----|----|

237127A- M-1156



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COPY**

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X - COMPONENT SUPPORT

CLASS I

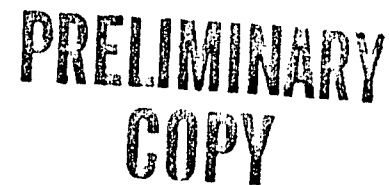
REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC  
LOOP B - LETDOWN (LD)  
REACTOR COOLANT DRAIN (WD)**

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                    |        |
|----------|--------------------|--------|
| DRAWN    | DESIGNED           | AED    |
| SCALE    | CHECKED            |        |
| NONE     |                    |        |
| APPROVED | PROJECT & DWG. NO. | SHT OF |
|          | 237127A- M-1157    |        |



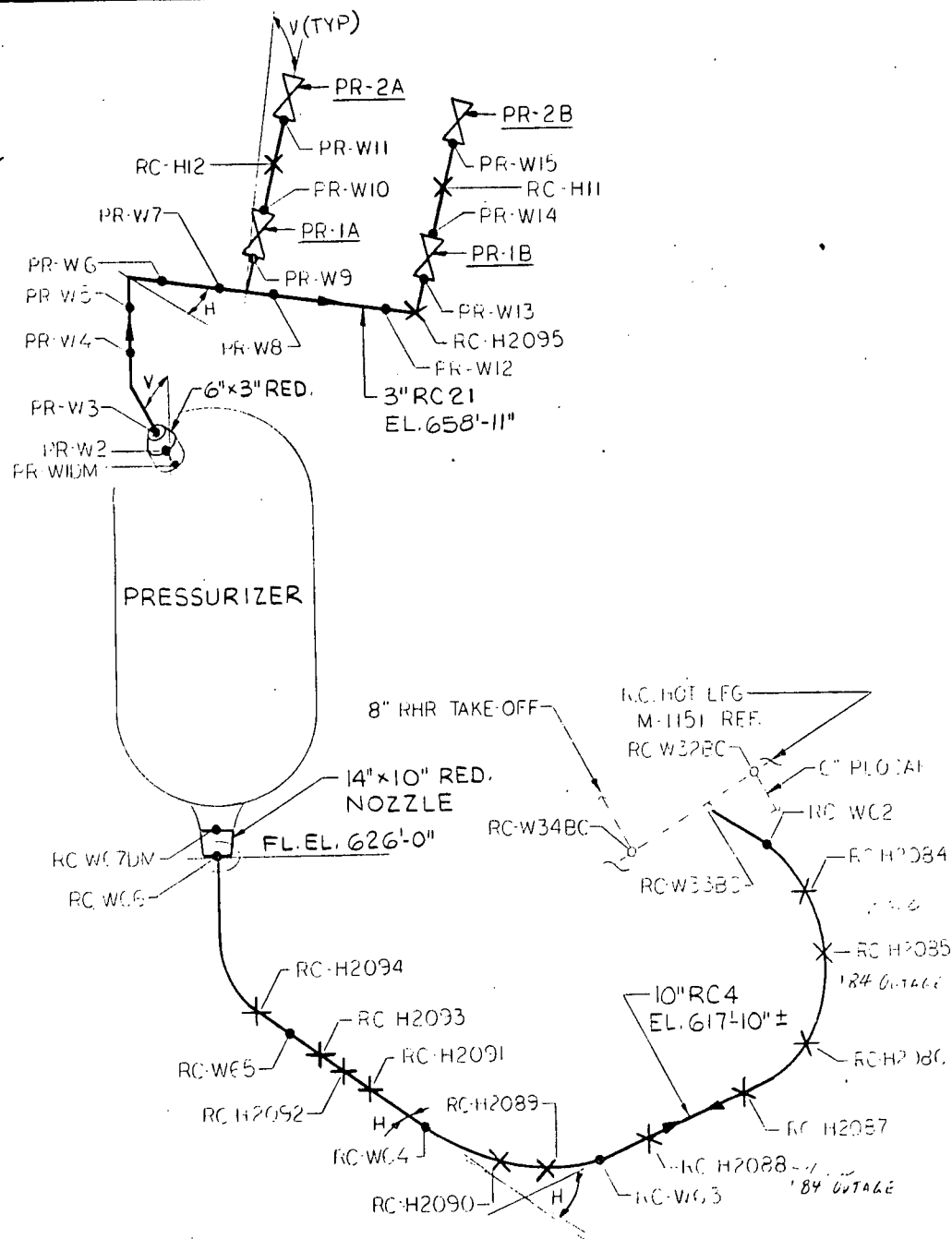
CLASS I

SHT OF

237127A- M-1158

## REVISIONS





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X - COMPONENT SUPPORT

CLASS I

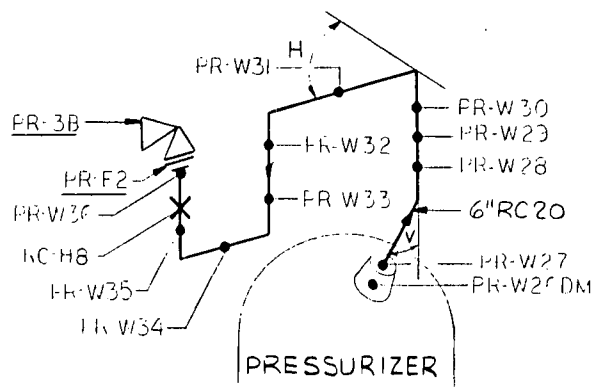
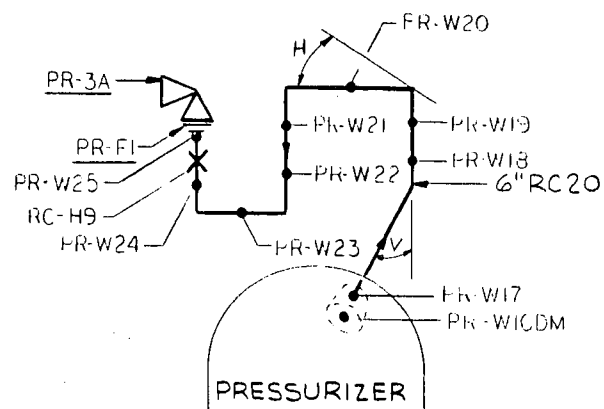
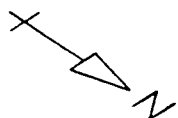
# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

## INSERVICE INSPECTION ISOMETRIC LOOP B - PRESSURIZER SURGE (RC) PRESSURIZER RELIEF (PR)

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                  |        |
|----------|------------------|--------|
| DRAWN    | DESIGNED         | AED    |
| SCALE    | CHECKED          |        |
| NONE     |                  |        |
| APPROVED | PROJECT & DWG NO | SHT OF |
|          | 237127A-         | M-1159 |



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CLASS I

# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC**

**PRESSURIZER SAFETY**

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

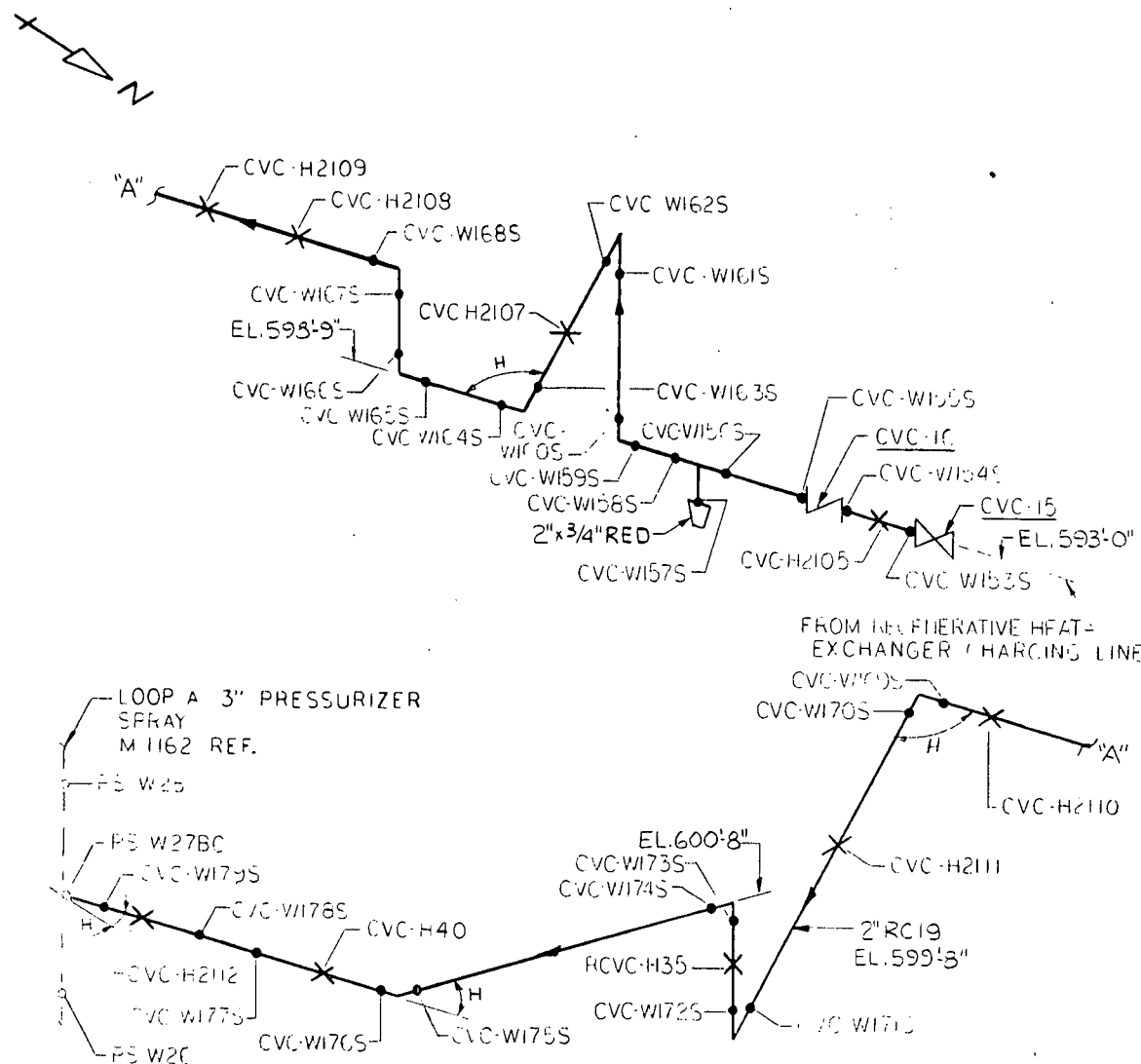
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| NONE     |                    |        |
| APPROVED | PROJECT & DWG. NO. | SHT OF |
|          | 237127A-           | M-1160 |





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CLASS I



WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

## INSERVICE INSPECTION ISOMETRIC

### AUXILIARY SPRAY (CVC)

DESIGNED BY

DESIGNED BY  
WISCONSIN PUBLIC SERVICE CORP.

GREEN BAY, WISCONSIN

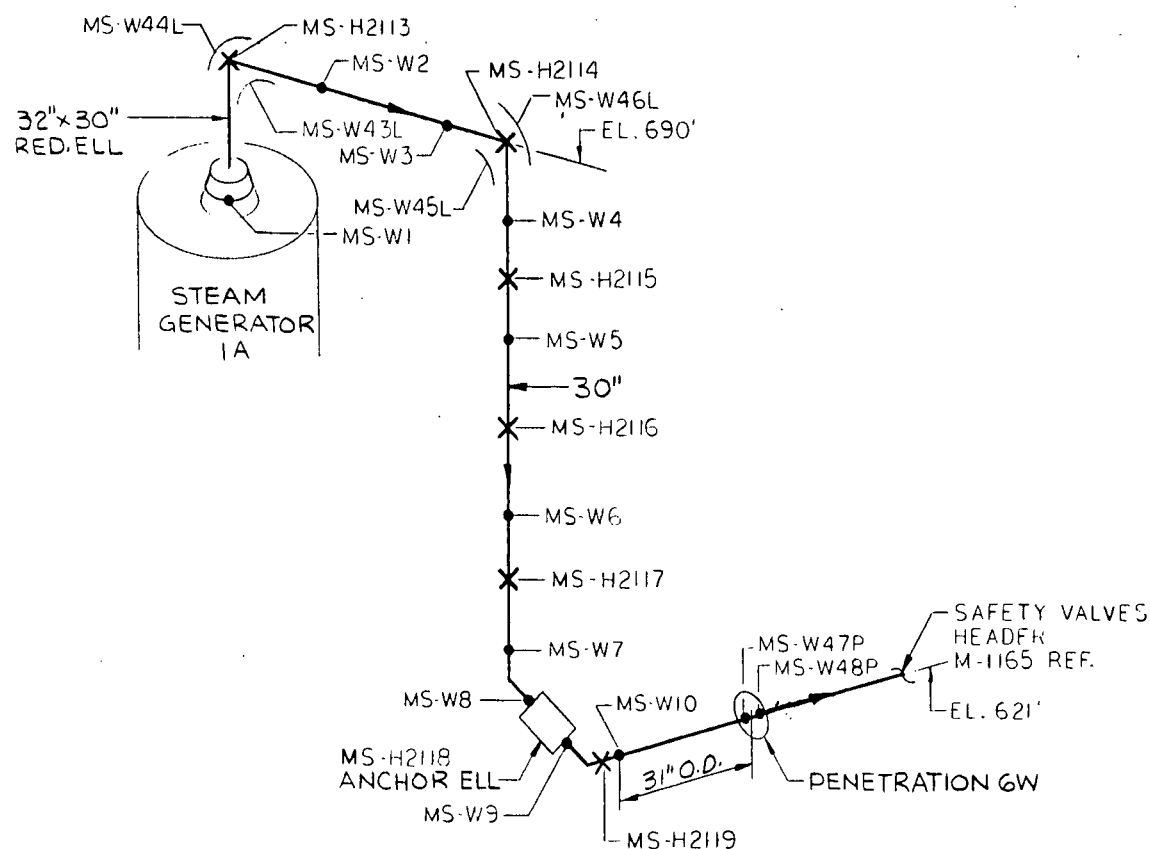
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| APPROVED |       |          | PROJECT & DWG. NO |     | SHT OF |
|          |       |          | 007107A           |     | M-1163 |

# REVISIONS

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CLASS II



WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

## INSERVICE INSPECTION ISOMETRIC LOOP A - MAIN STEAM (MS)

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

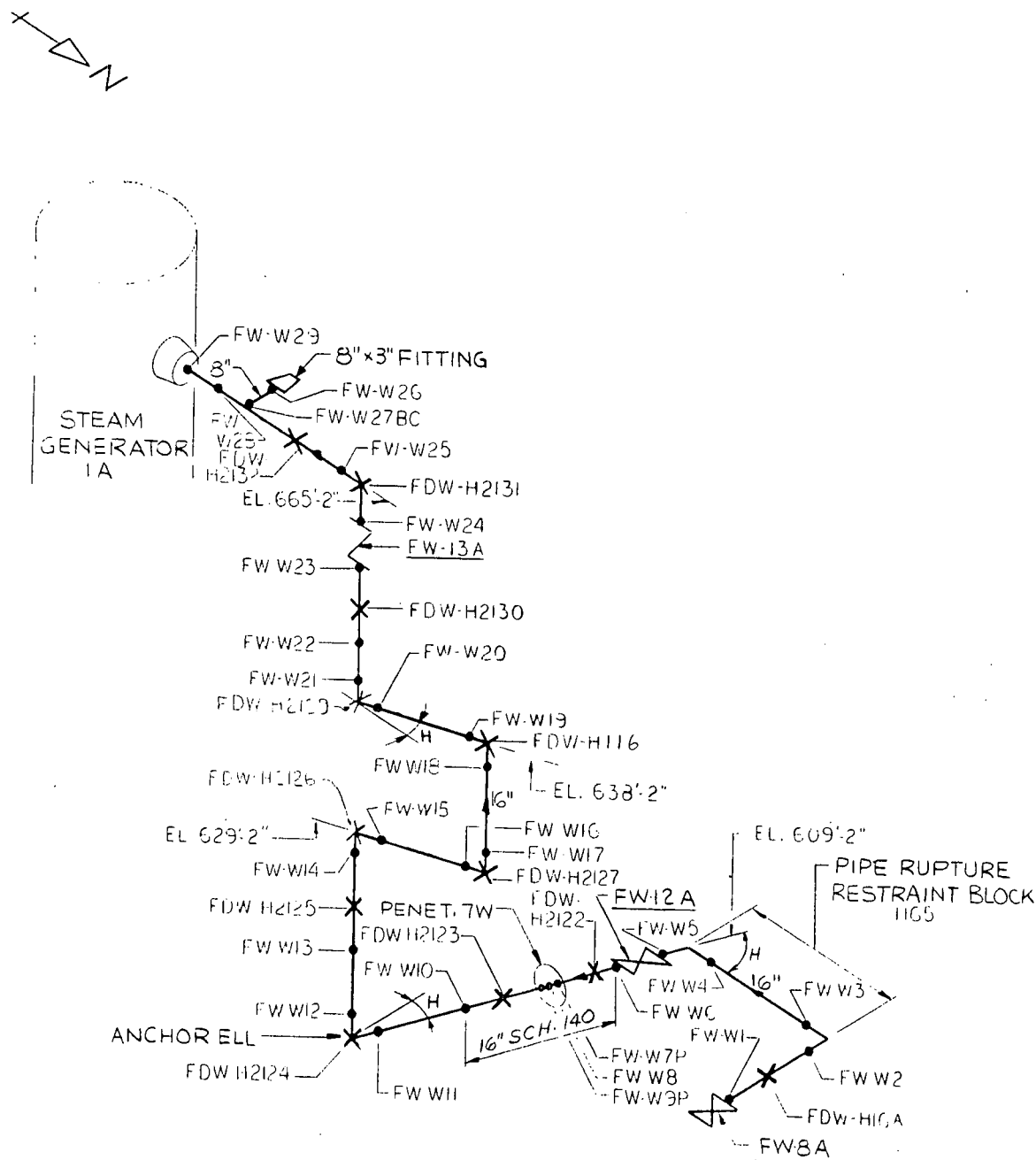
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|                  |  | D. M. / 1-17-85 |                    |     |        |
| APPROVED         |  |                 | PROJECT & DWG. NO. |     | SHT OF |
|                  |  |                 | 237127A-           |     | M-1164 |



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CL/SC II



INSERVICE INSPECTION ISOMETRIC  
LOOP A - FEEDWATER (FW)  
NOZZLE

DESIGNED BY  
WISCONSIN PUBLIC SERVICE CORP.

|       |          |          |  |     |  |
|-------|----------|----------|--|-----|--|
| DRAWN |          | DESIGNED |  | AED |  |
| W.H.  | 10/11/62 |          |  |     |  |

|       |         |  |  |
|-------|---------|--|--|
| SCALE | CHECKED |  |  |
| NONE  |         |  |  |

|          |                    |     |    |
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| APPROVED | PROJECT & DWG. NO. | SHT | OF |
|----------|--------------------|-----|----|

0071071 M-1166

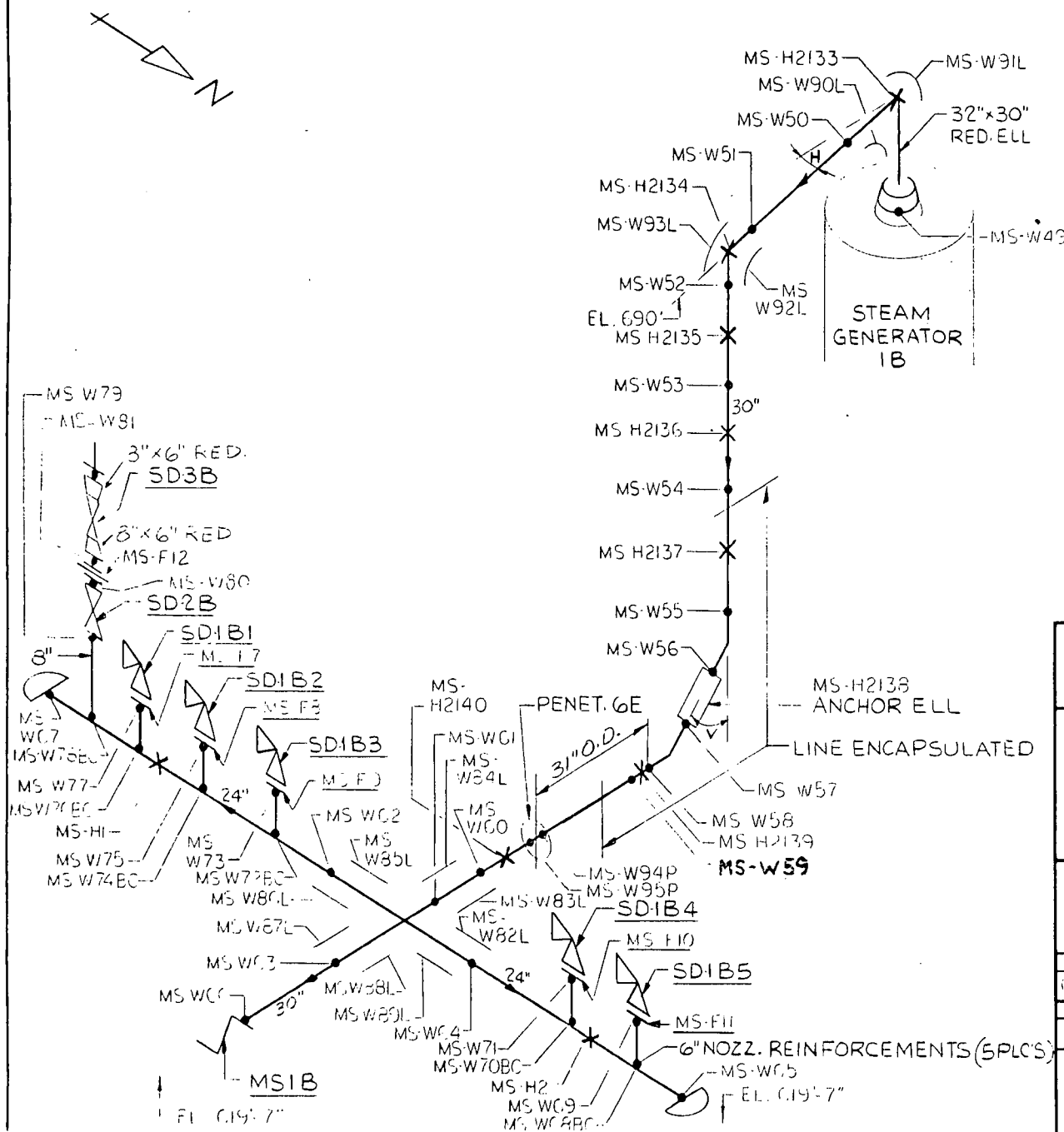


REVISIONS

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COPY**

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X - COMPONENT SUPPORT

CLASS II



WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC**  
**LOOP B - MAIN STEAM (MS)**  
**MS SAFETY VALVES**

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

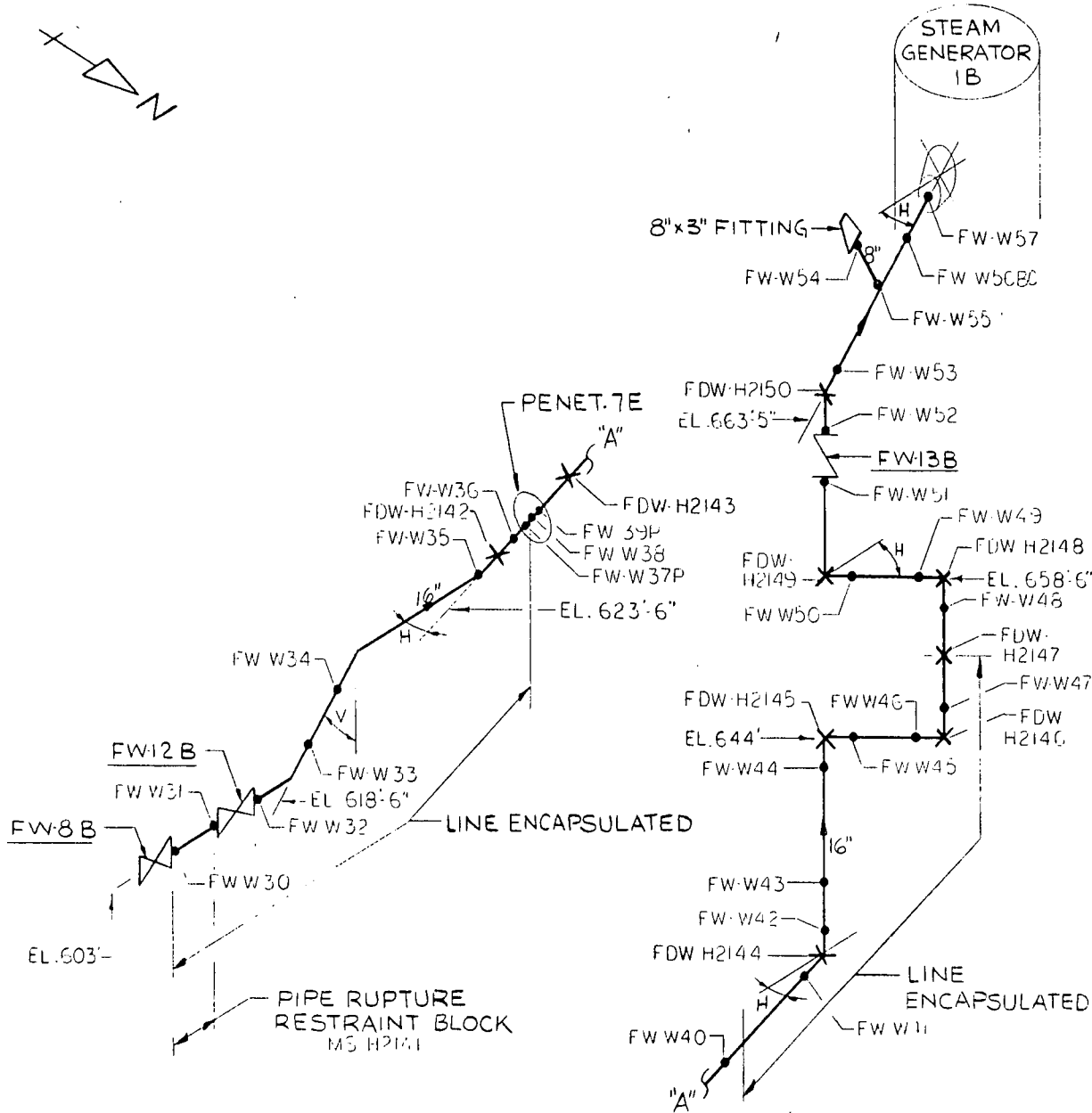
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| APPROVED | PROJECT & DWG NO | SHT OF   |
|          | 237127A-         | M - 1167 |

REVISIONS

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CLASS II



WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC  
LOOP B - FEEDWATER (FW)  
NOZZLE**

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |          |     |
|----------|----------|-----|
| DRAWN    | DESIGNED | AED |
| 24/11/83 |          |     |
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APPROVED PROJECT & DWG. NO. SHT OF

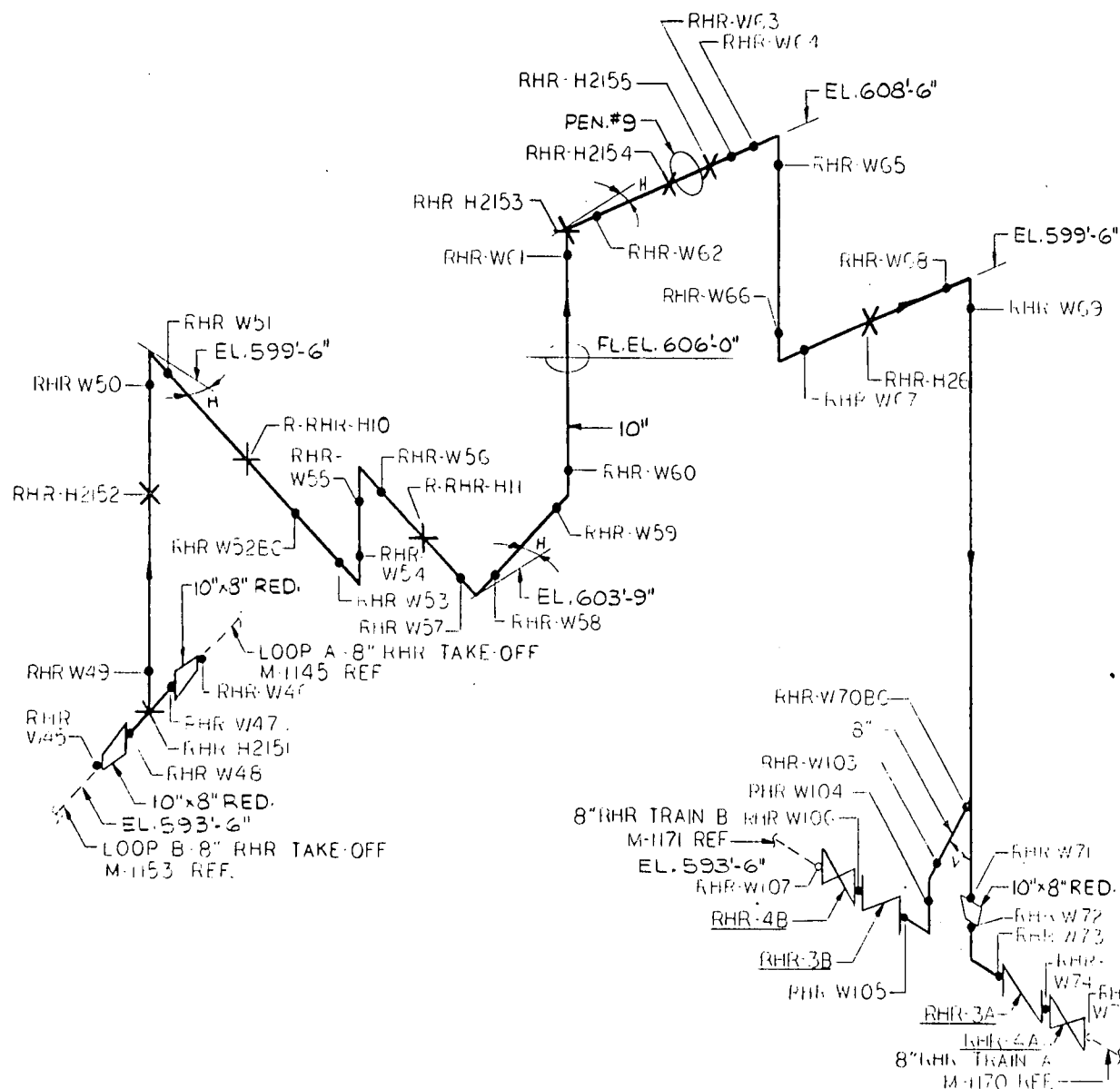
237127A- M-II68

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CLASS II

REVISIONS

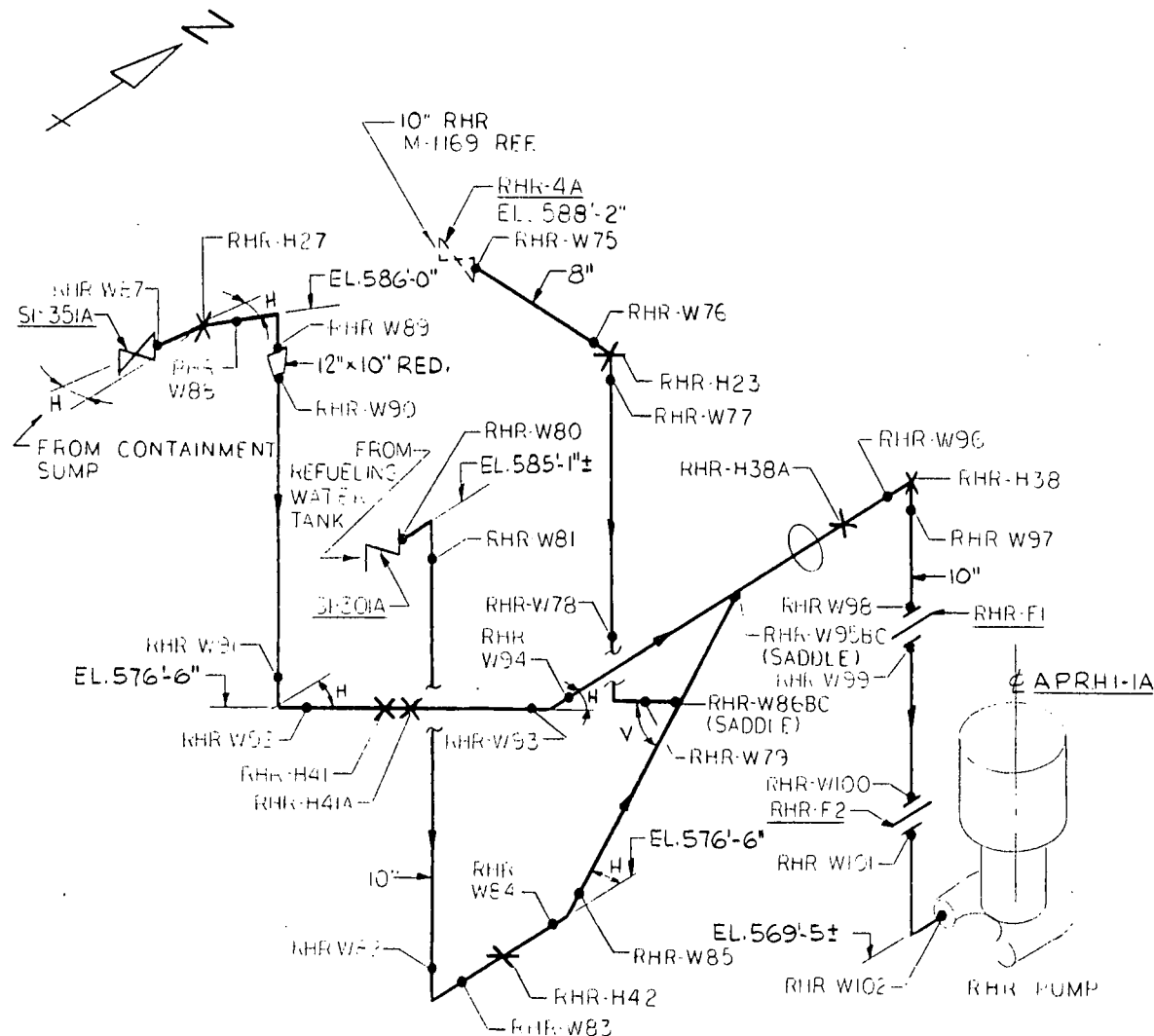


WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

INSERVICE INSPECTION ISOMETRIC  
RESIDUAL HEAT REMOVAL (RHR)  
TRAIN A AND B

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |  |          |                    |     |        |
|----------|--|----------|--------------------|-----|--------|
| DRAWN    |  | DESIGNED |                    | AED |        |
| SCALE    |  | CHECKED  |                    |     |        |
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| APPROVED |  |          | PROJECT & DWG. NO. |     | SHT OF |
|          |  |          | 237127A-           |     | M-1169 |



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CLASS II

# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

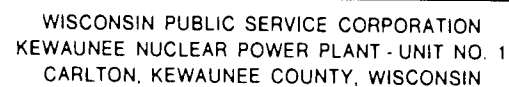
## INSERVICE INSPECTION ISOMETRIC RESIDUAL HEAT REMOVAL (RHR) TRAIN A

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                  |          |    |
|----------|------------------|----------|----|
| DRAWN    | DESIGNED         | AED      |    |
| Q R / 1  | 11/93            |          |    |
| SCALE    | CHECKED          |          |    |
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| APPROVED | PROJECT & DWG NO | SHT      | OF |
|          | 237127A-         | M - 1170 |    |

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COPY**

CLASS II



INSERVICE INSPECTION ISOMETRIC  
RESIDUAL HEAT REMOVAL (RHR)  
TRAIN B

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|                   |  |                  |  |     |        |
|-------------------|--|------------------|--|-----|--------|
| DRAWN             |  | DESIGNED         |  | AED |        |
| JH / L / 10/10/07 |  |                  |  |     |        |
| SCALE             |  | CHECKED          |  |     |        |
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| APPROVED          |  | PROJECT & DWG NO |  |     | SHT OF |
|                   |  | 237127A-         |  |     | M-1171 |

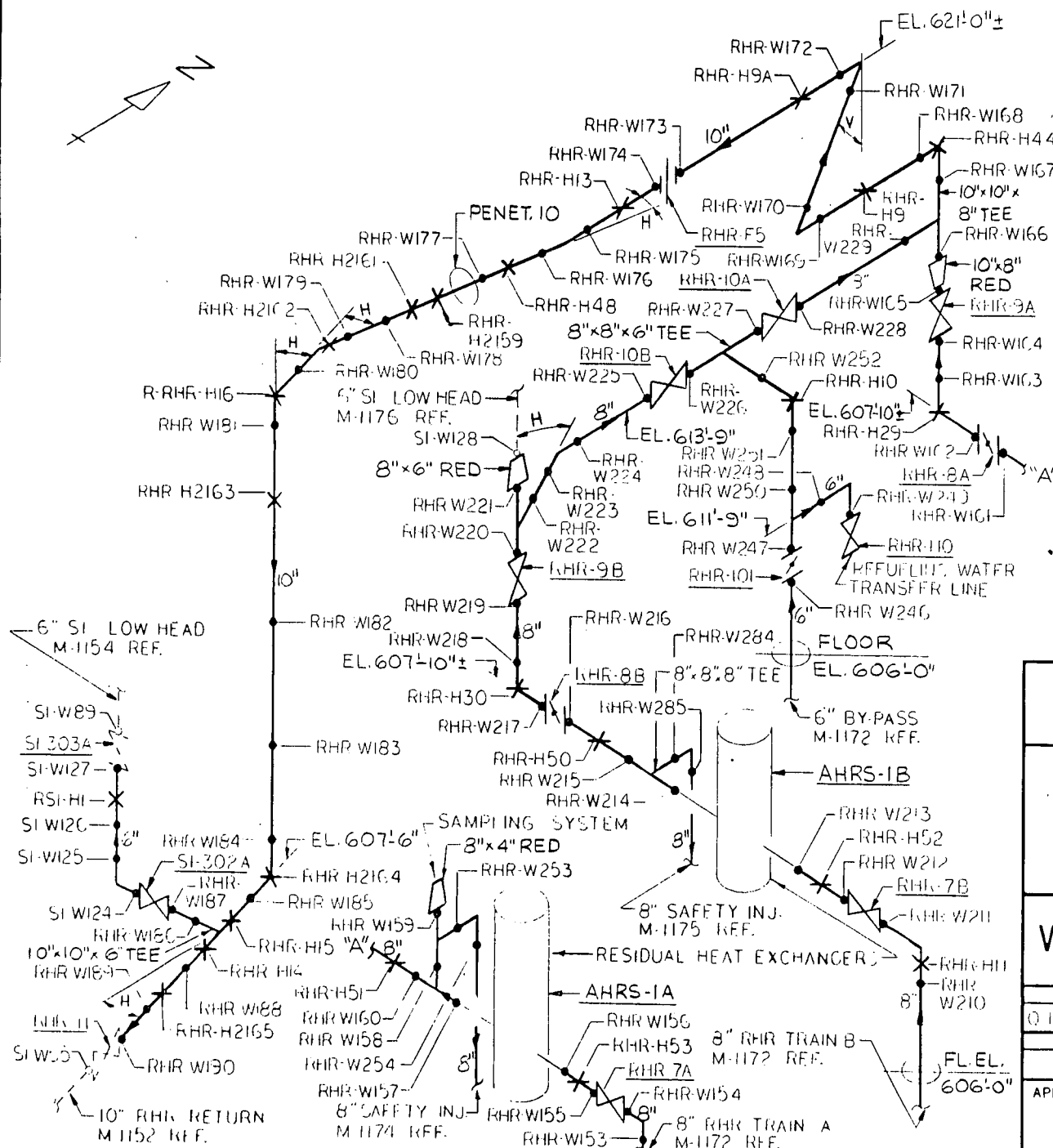


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CLASS II

## REVISIONS

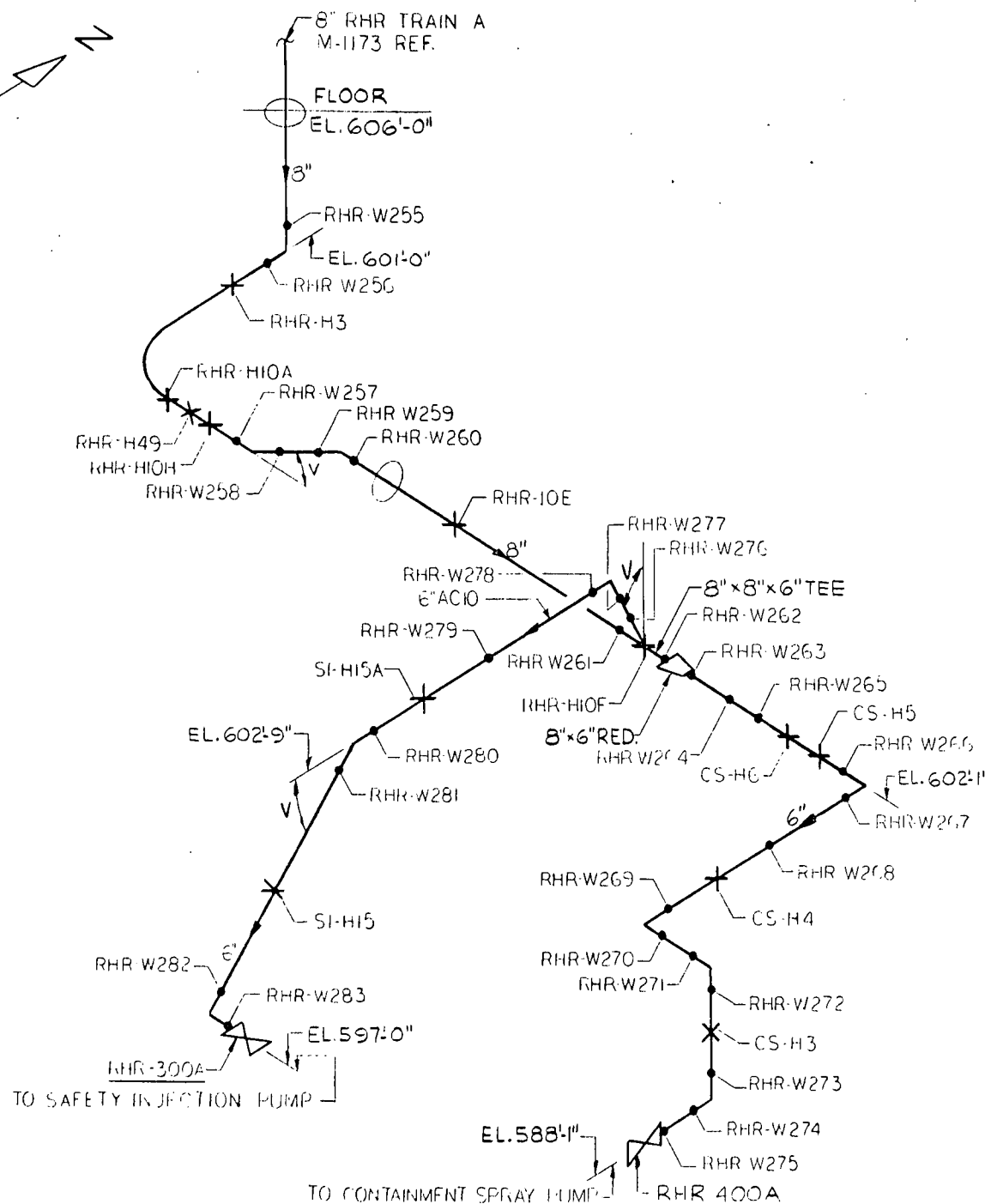
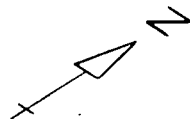


WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

## INSERVICE INSPECTION ISOMETRIC RESIDUAL HEAT REMOVAL (RHR) RETURN, TRAIN A AND B, BY-PASS SAFETY INJECTION LOW HEAD (SI)

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|               |                    |        |
|---------------|--------------------|--------|
| DRAWN         | DESIGNED           | AED    |
| OK / 11/15/82 |                    |        |
| SCALE         | CHECKED            |        |
| NONE          |                    |        |
| APPROVED      | PROJECT & DWG. NO. | SHT OF |
|               | 237127A-           | M-1173 |



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CLASS II

# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

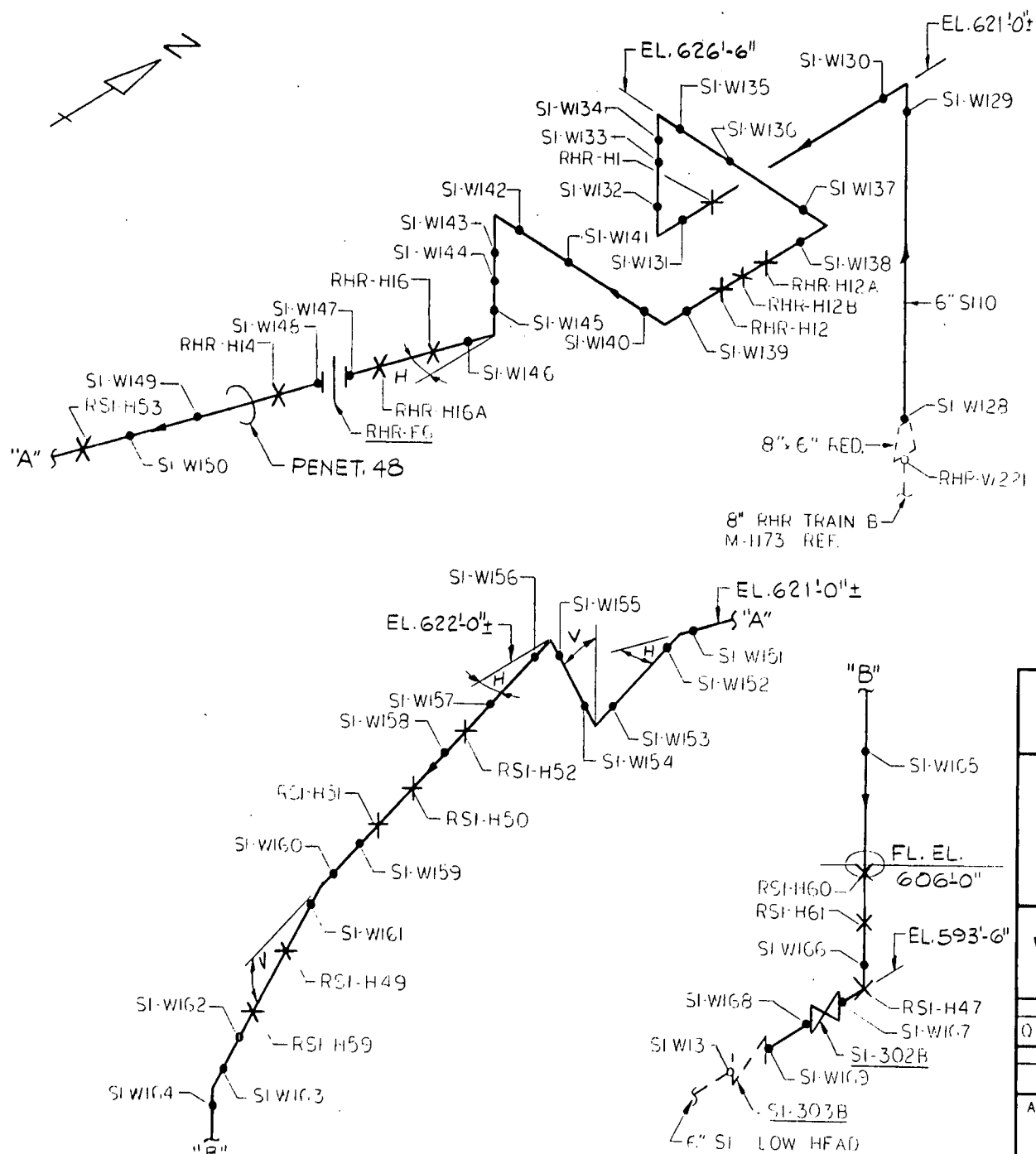
## INSERVICE INSPECTION ISOMETRIC SAFETY INJECTION (SI) TRAIN A CONTAINMENT SPRAY

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                   |        |
|----------|-------------------|--------|
| DRAWN    | DESIGNED          | AED    |
| 01/11/83 |                   |        |
| SCALE    | CHECKED           |        |
| NONE     |                   |        |
| APPROVED | PROJECT & DWG NO. | SHT OF |
|          | 237127A-          | M-1174 |







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CLASS II

# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

## INSERVICE INSPECTION ISOMETRIC SAFETY INJECTION LOW HEAD (SI)

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

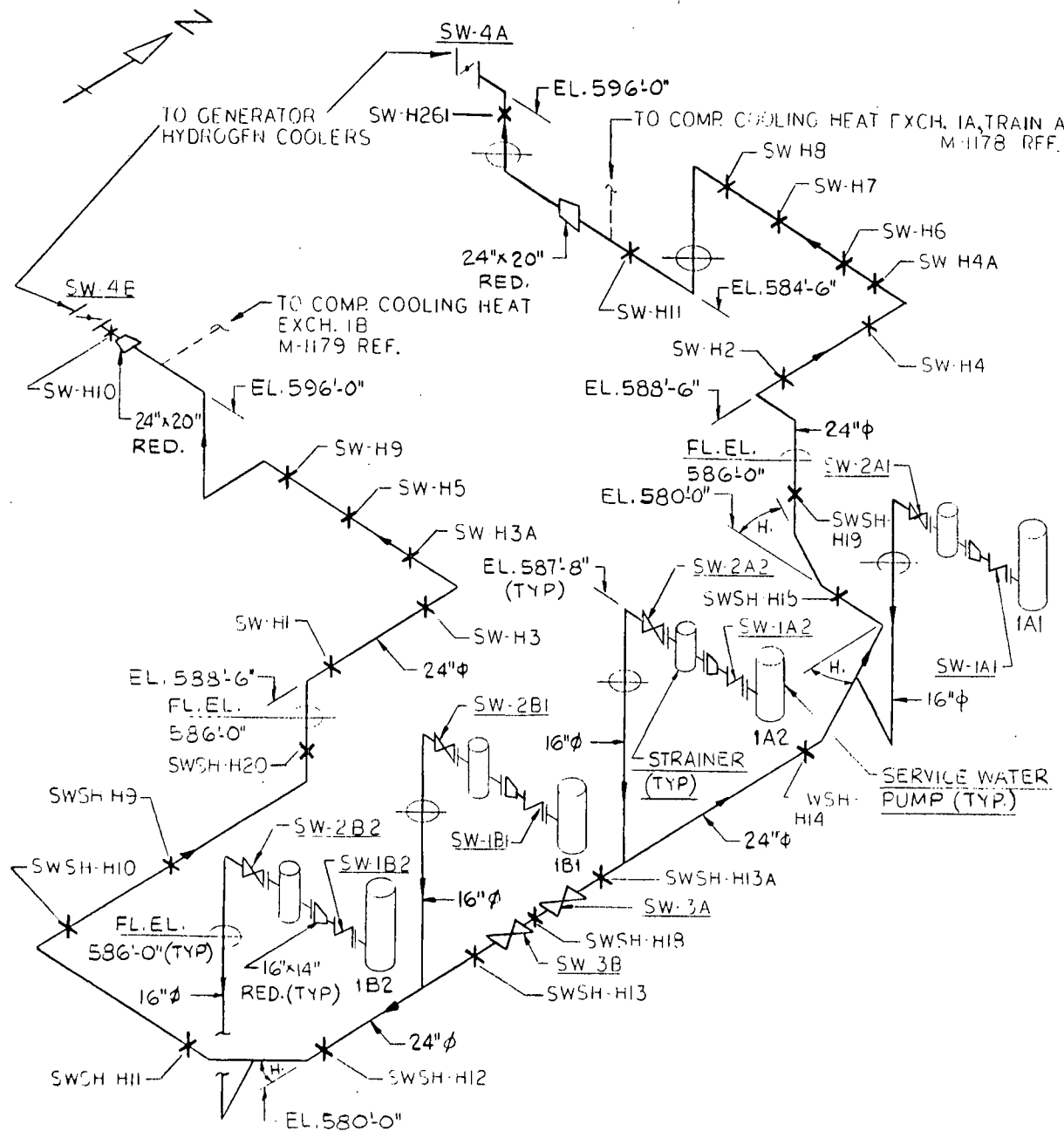
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| APPROVED         | PROJECT & DWG. NO. | SHT OF |
|                  | 237127A            | M-1176 |

# REVISIONS

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CLASS III



WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

## INSERVICE INSPECTION ISOMETRIC SERVICE WATER SYSTEM (SW) SCREENHOUSE (SWSH)

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                    |        |
|----------|--------------------|--------|
| DRAWN    | DESIGNED           | AED    |
| SCALE    | CHECKED            |        |
| APPROVED | PROJECT & DWG. NO. | SHT OF |
|          | 237127A- M-1177    |        |



COMPONENT COOLING  
HEAT EXCHANGER IB

FL. EL. 606'-0"

EL. 601'-0"

SW-H2169

12"  $\phi$

SW-H2168

SW-H401

12" x 10" RED. ELL

BY-PASS  
M-1178 REF.

SW-1300B

16" x 10" RED.

TO FAN COIL UNITS IA & IB  
M-1181 REF.

SW-H119

SW-H118

SW-H89

SW-H88

16"  $\phi$

EL. 601'-0"

EL. 600'-0"

TURBINE BUILDING

EL. 605'-6"

SW-H241

SW-H239

SW-H412

SW-H87

SW-H413

SW-H238

SW-H237

SW-H411

SW-H236

SW-H235

SW-H55

SW-H53

SW-H51

EL. 605'-6"

16"  $\phi$

EL. 596'-0"

FROM SERVICE WATER PUMPS  
M-1177 REF.

24" x 20" RED.

SW-H46A

SW-10B

PRELIMINARY  
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X - COMPONENT SUPPORT

CLASS III

REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

INSERVICE INSPECTION ISOMETRIC  
SERVICE WATER SYSTEM (SW)  
COMPONENT COOLING HEAT  
EXCHANGER IB

DESIGNED BY

WISCONSIN PUBLIC SERVICE CORP.

GREEN BAY, WISCONSIN

DRAWN

DESIGNED

AED

SCALE

CHECKED

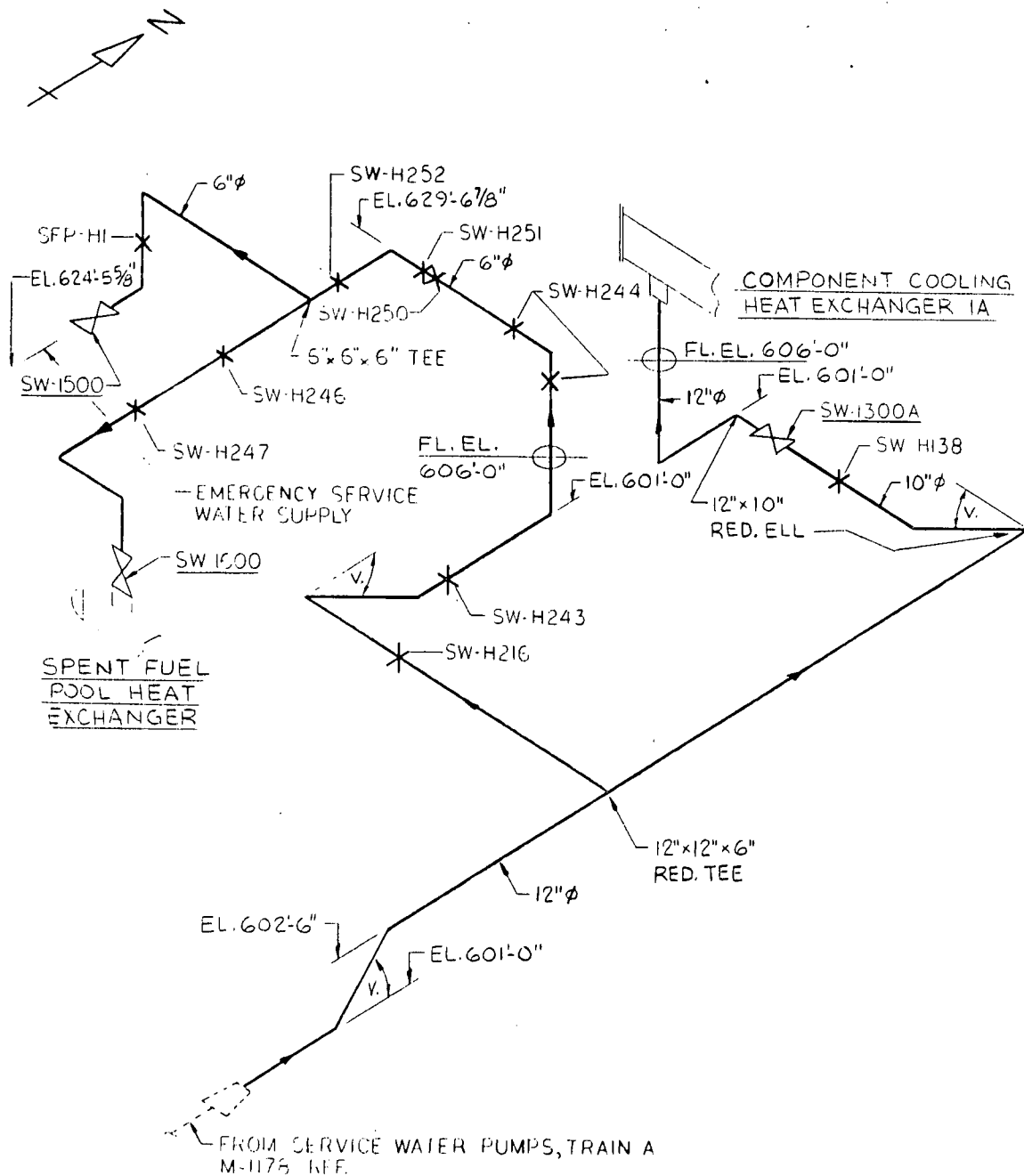
APPROVED

PROJECT & DWG. NO.

SHT

OF

M-1179



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COPY**

X - COMPONENT SUPPORT

CLASS III

# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC  
SERVICE WATER SYSTEM (SW)  
COMPONENT COOLING HEAT EXCHANGER 1A  
SPENT FUEL POOL HEAT EXCHANGER**

DESIGNED BY

**WISCONSIN PUBLIC SERVICE CORP.**

GREEN BAY, WISCONSIN

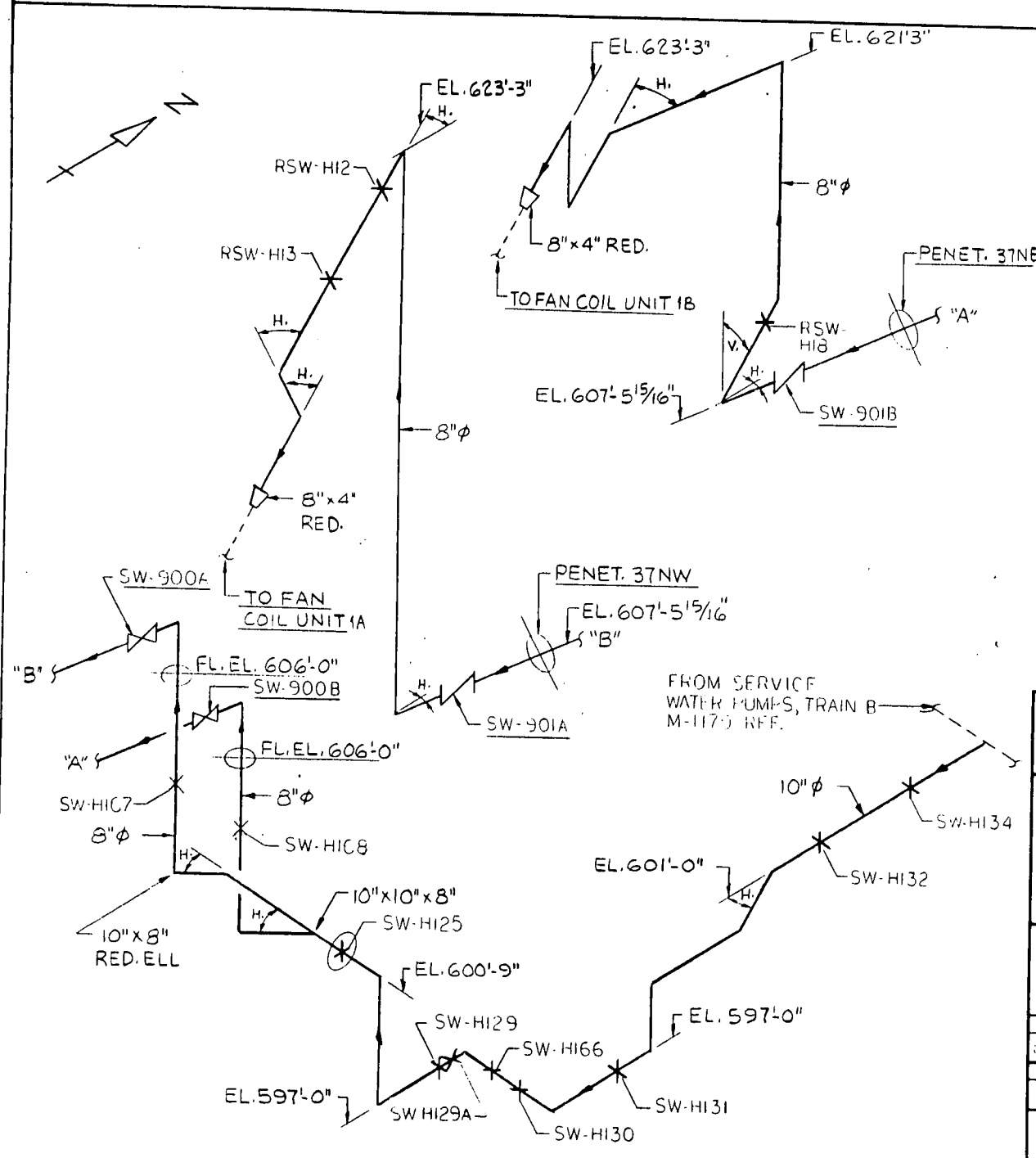
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| Q R / 1.5.113-3 |          |     |
| SCALE           | CHECKED  |     |
|                 |          |     |

APPROVED

PROJECT & DWG. NO.

SHT OF

237127A- M 1180



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CLASS III

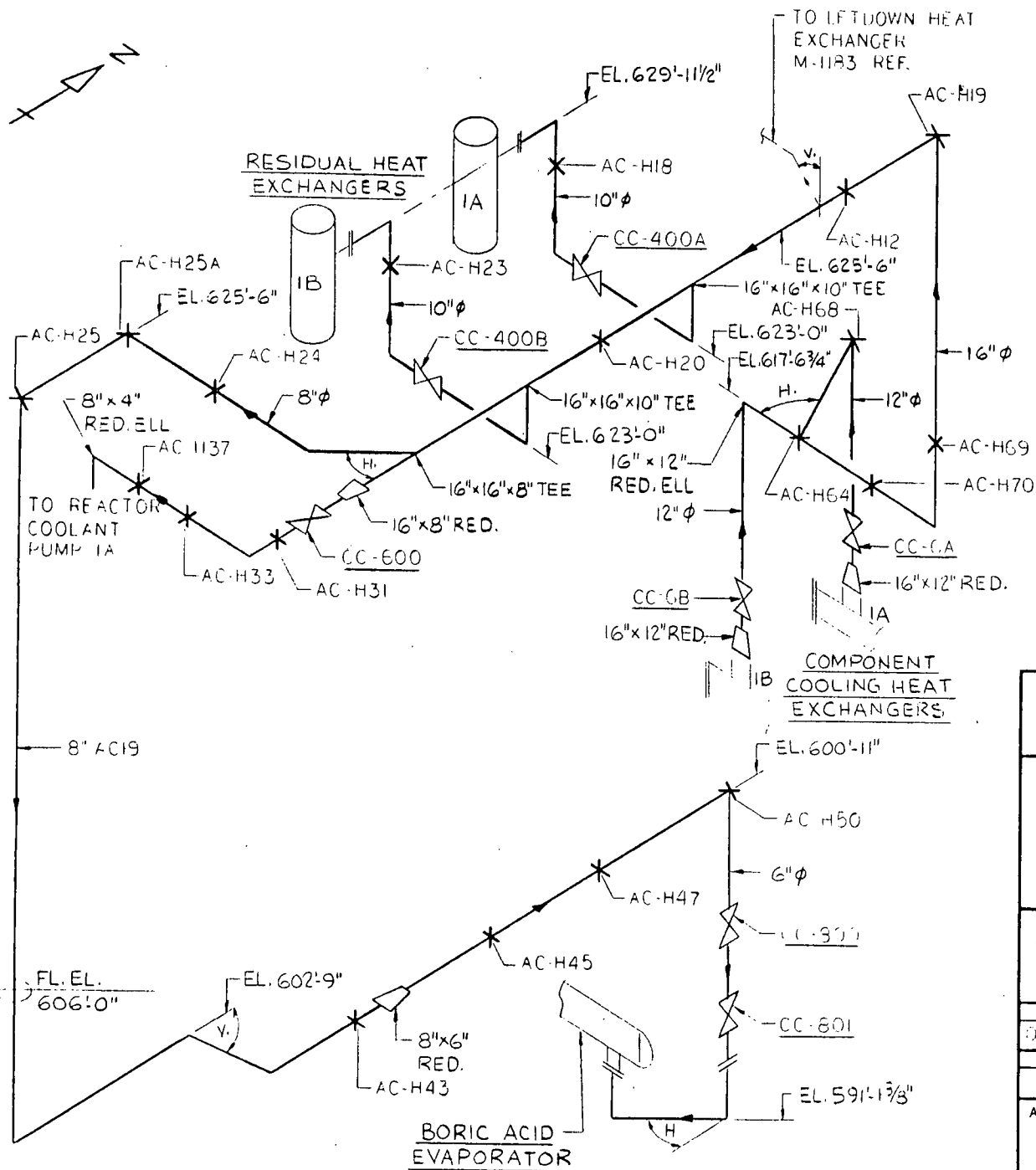
REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC**  
**SERVICE WATER SYSTEM (SW)**  
**TO FAN COIL UNITS IA AND IB**

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|                 |  |                    |  |        |  |
|-----------------|--|--------------------|--|--------|--|
| DRAWN           |  | DESIGNED           |  | AED    |  |
| R.R. / 05-13-83 |  |                    |  |        |  |
| SCALE           |  | CHECKED            |  |        |  |
| ~               |  | 11/1/83            |  |        |  |
| APPROVED        |  | PROJECT & DWG. NO. |  | SHT OF |  |
|                 |  | 237127A            |  | M-1181 |  |



**PRELIMINARY  
COPY**

X - COMPONENT SUPPORT

CLASS III

# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC  
AUXILIARY COOLANT (AC)  
RESIDUAL HT., COMPONENT COOLING HT.  
EXCHANGERS, BORIC ACID EVAPORATOR**

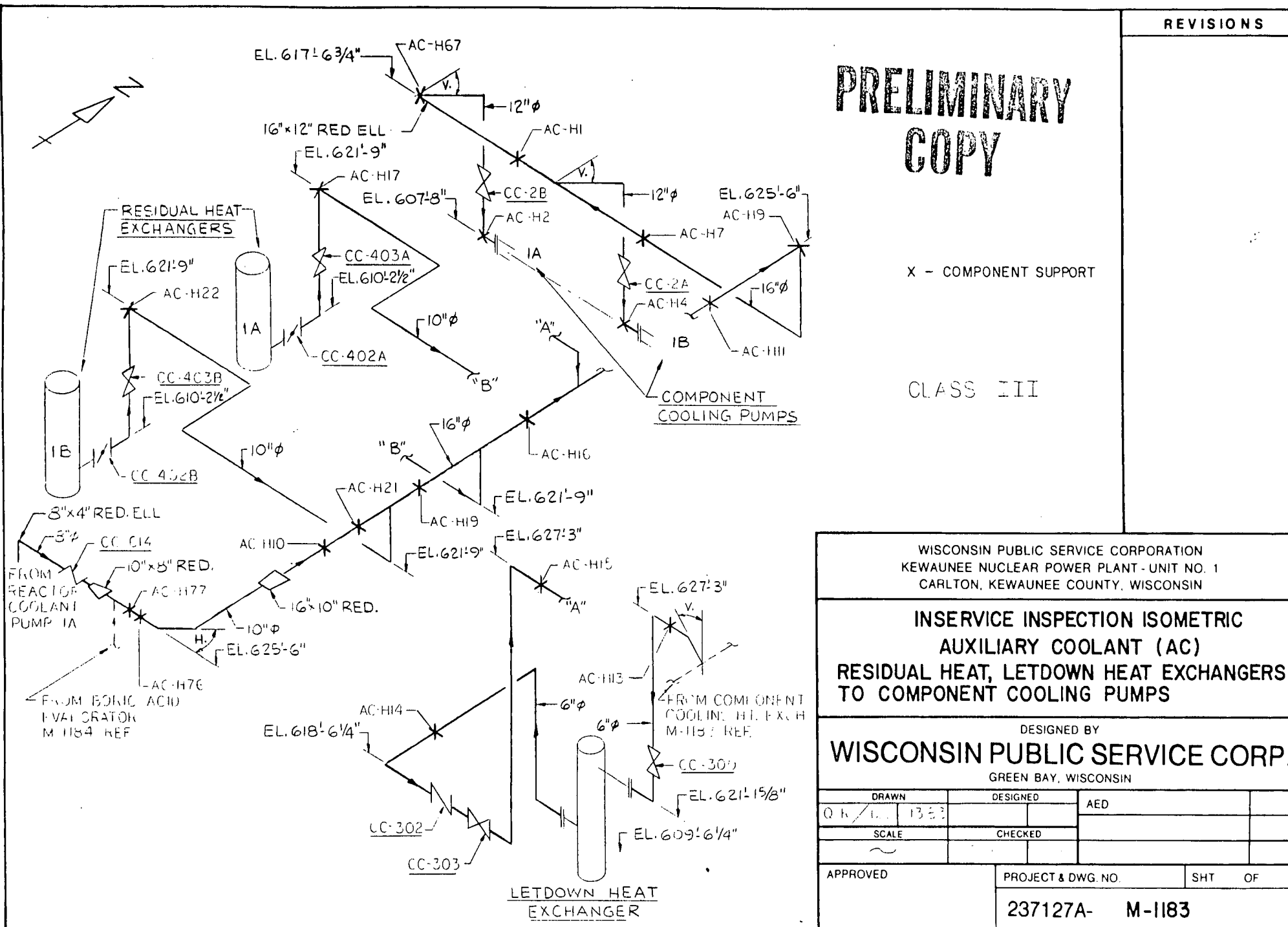
DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|                |          |     |
|----------------|----------|-----|
| DRAWN          | DESIGNED | AED |
| Q.R. / 10113-3 |          |     |
| SCALE          | CHECKED  |     |
| ~              |          |     |

APPROVED PROJECT & DWG. NO SHT OF

237127A- M-1182





# REVISIONS

**PRELIMINARY  
COPY**

X - COMPONENT SUPPORT

CLASS III

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC  
AUXILIARY COOLANT (AC)  
COMPONENT COOLING PUMPS TO HT. EXCHS.  
BORIC ACID EVAPORATOR OUTLET**

DESIGNED BY

**WISCONSIN PUBLIC SERVICE CORP.**

GREEN BAY, WISCONSIN

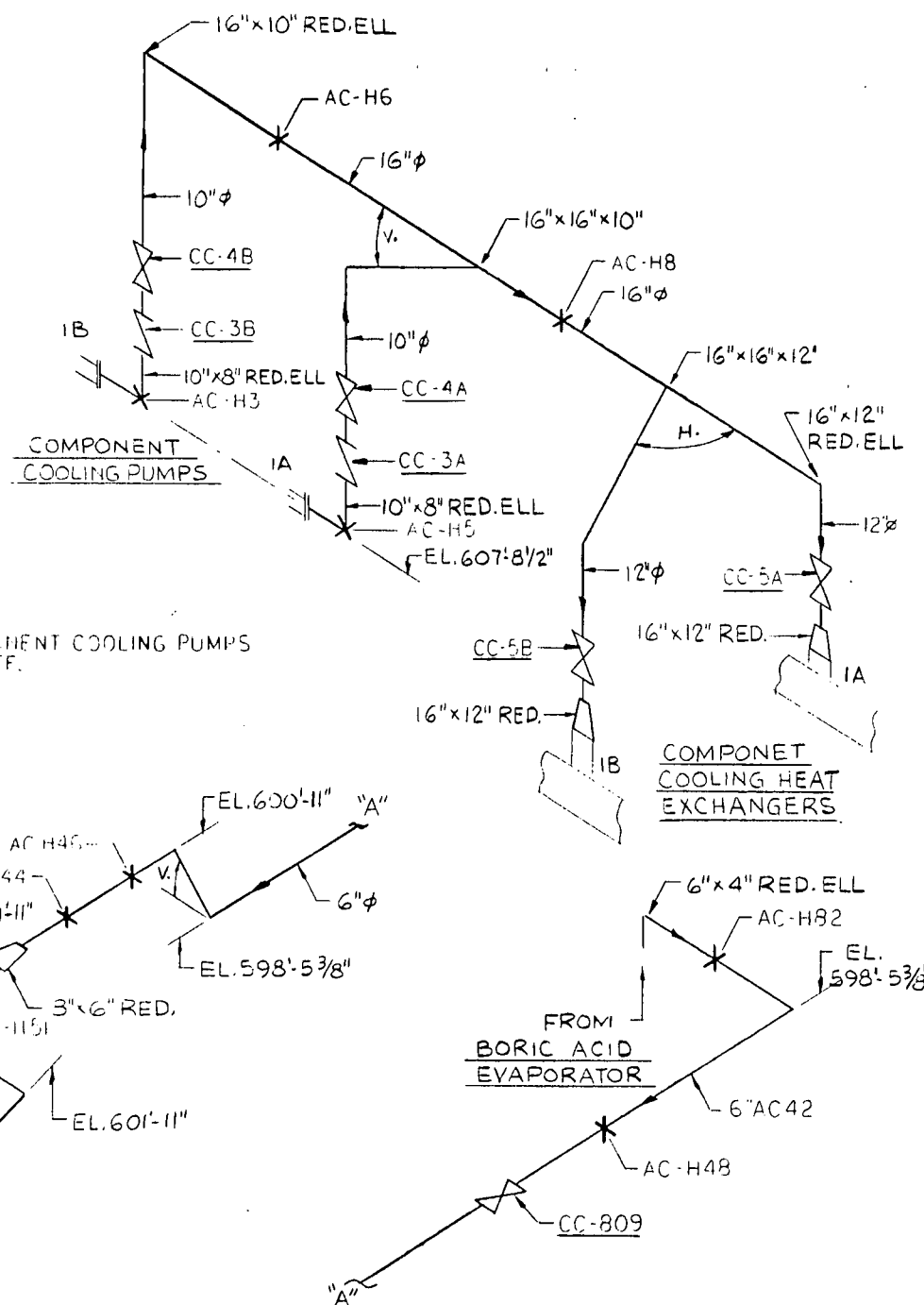
|                 |          |     |
|-----------------|----------|-----|
| DRAWN           | DESIGNED | AED |
| Q.L. / 10/14/83 |          |     |
| SCALE           | CHECKED  |     |
| ~               | 10/14/83 |     |

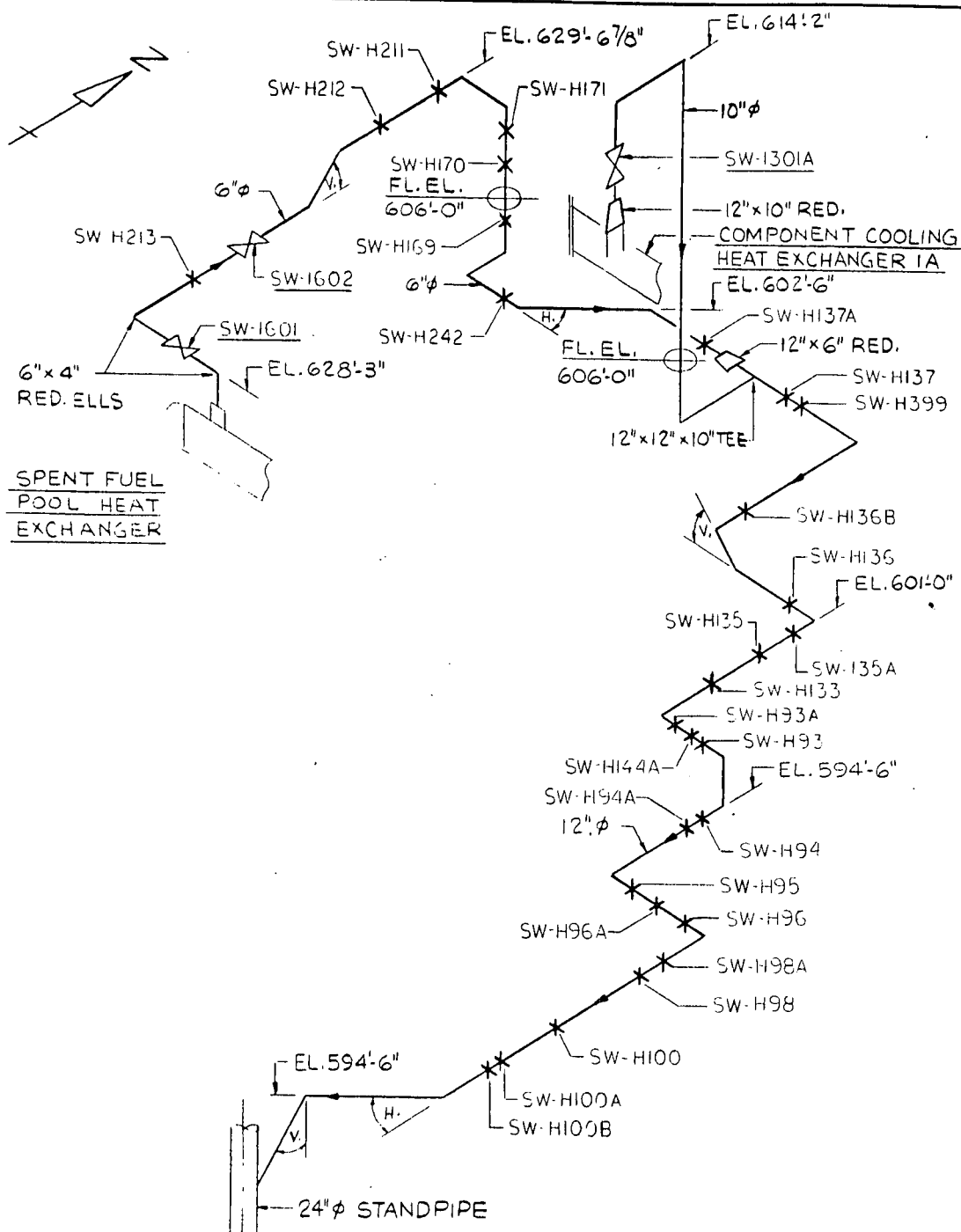
APPROVED

PROJECT & DWG. NO.

SHT OF

237127A- M-IIB4





**PRELIMINARY  
COPY**

X - COMPONENT SUPPORT

CLASS III

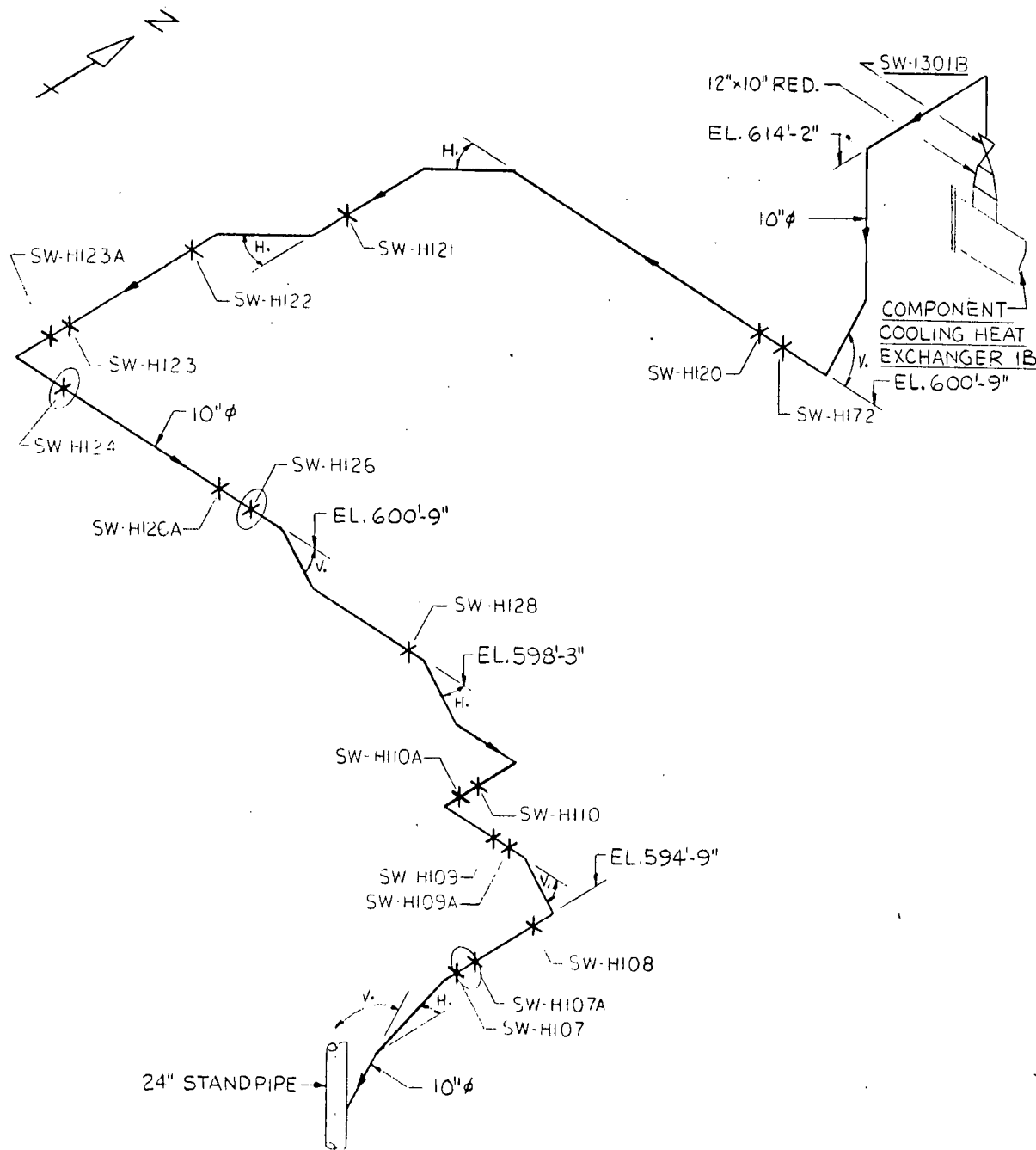
# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC  
SERVICE WATER SYSTEM (SW)  
SPENT FUEL POOL AND COMPONENT COOLING (IA)  
HEAT EXCHANGERS TO STANDPIPE**

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                    |        |
|----------|--------------------|--------|
| DRAWN    | DESIGNED           | AED    |
| 01/1/83  |                    |        |
| SCALE    | CHECKED            |        |
|          |                    |        |
| APPROVED | PROJECT & DWG. NO. | SHT OF |
|          | 237127A            | M 1105 |



**PRELIMINARY  
COPY**

X - COMPONENT SUPPORT

CLASS III

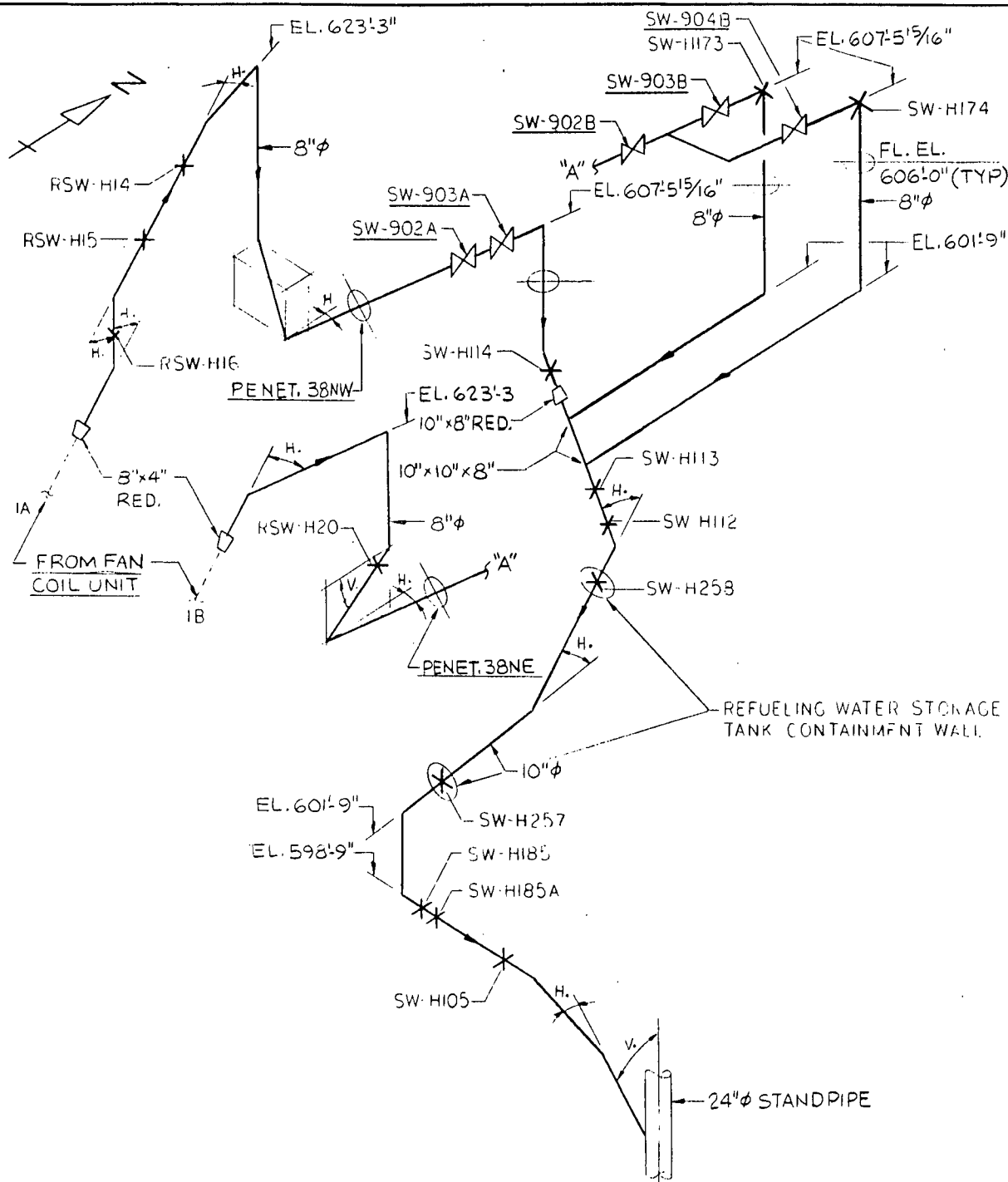
# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC  
SERVICE WATER SYSTEM (SW)  
COMPONENT COOLING HEAT EXCHANGER  
IB TO STANDPIPE**

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                    |        |
|----------|--------------------|--------|
| DRAWN    | DESIGNED           | AED    |
| SCALE    | CHECKED            |        |
| APPROVED | PROJECT & DWG. NO. | SHT OF |
|          | 237127A-           | M-1186 |



**PRELIMINARY  
COPY**

X - COMPONENT SUPPORT

CLASS III

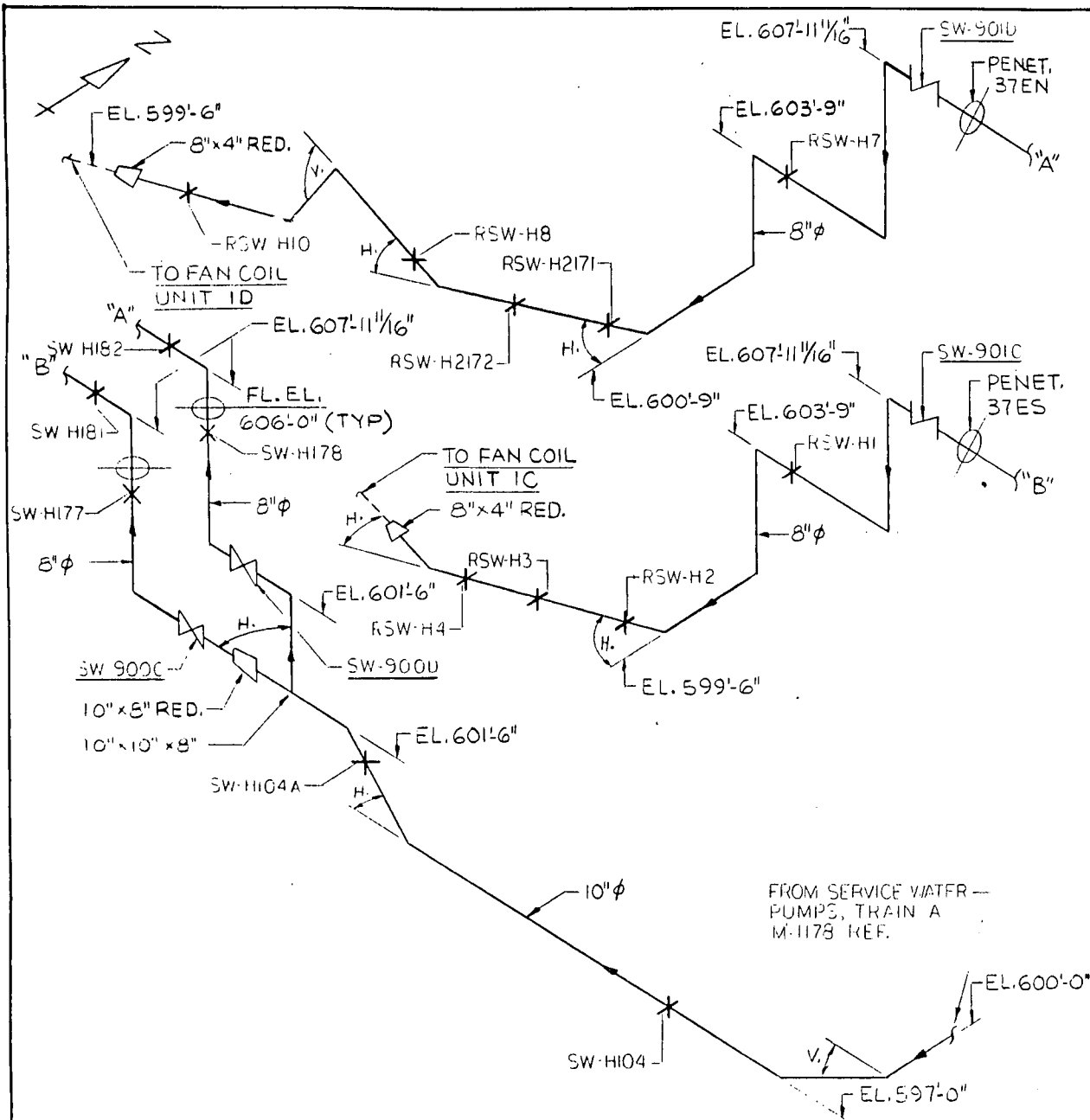
# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

## INSERVICE INSPECTION ISOMETRIC SERVICE WATER SYSTEM (SW) FAN COIL UNITS IA AND IB TO STANDPIPE

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|               |                   |        |
|---------------|-------------------|--------|
| DRAWN         | DESIGNED          | AED    |
| QK / PS 11-83 |                   |        |
| SCALE         | CHECKED           |        |
|               |                   |        |
| APPROVED      | PROJECT & DWG. NO | SHT OF |
|               | 237127A-          | M-1187 |



**PRELIMINARY  
COPY**

X - COMPONENT SUPPORT

CLASS III

# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

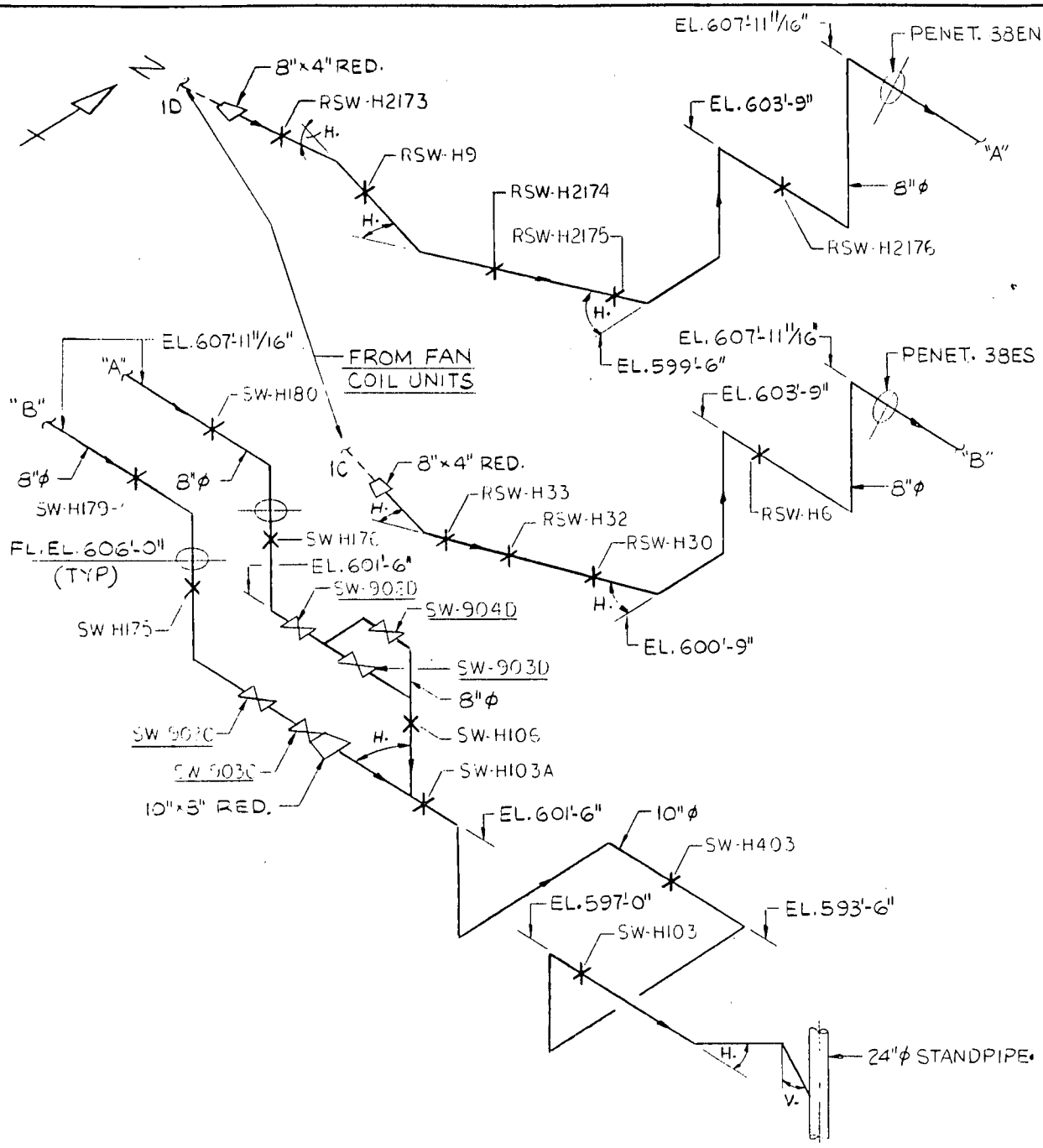
## INSERVICE INSPECTION ISOMETRIC

SERVICE WATER SYSTEM (SW)  
TO FAN COIL UNITS IC AND ID

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**

GREEN BAY, WISCONSIN

|          |                    |        |    |
|----------|--------------------|--------|----|
| DRAWN    | DESIGNED           | AED    |    |
| SCALE    | CHECKED            |        |    |
| APPROVED | PROJECT & DWG. NO. | SHT    | OF |
|          | 237127A-           | M-1188 |    |



**PRELIMINARY  
COPY**

X - COMPONENT SUPPORT

CLASS III

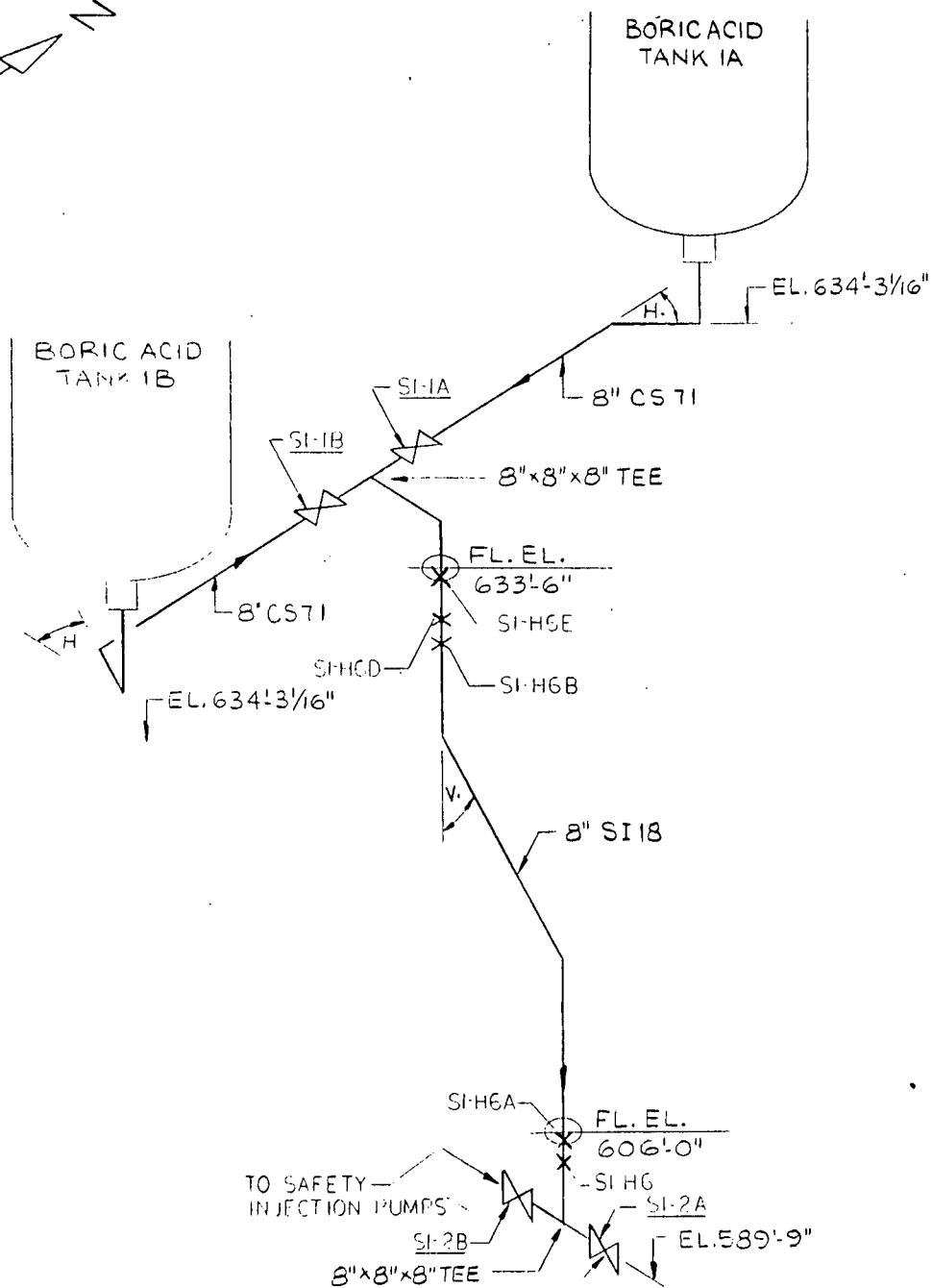
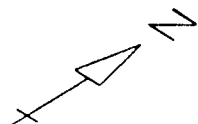
**REVISIONS**

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC**  
**SERVICE WATER SYSTEM (SW)**  
**FAN COIL UNITS IC AND ID TO STANDPIPE**

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|                   |                    |        |    |
|-------------------|--------------------|--------|----|
| DRAWN             | DESIGNED           | AED    |    |
| Q. R. / P. 114 53 |                    |        |    |
| SCALE             | CHECKED            |        |    |
|                   | D. M. / 1-17-83    |        |    |
| APPROVED          | PROJECT & DWG. NO. | SHT    | OF |
|                   | 237127A-           | M-1189 |    |



**PRELIMINARY  
COPY**

X - COMPONENT SUPPORT

CLASS III

# REVISIONS

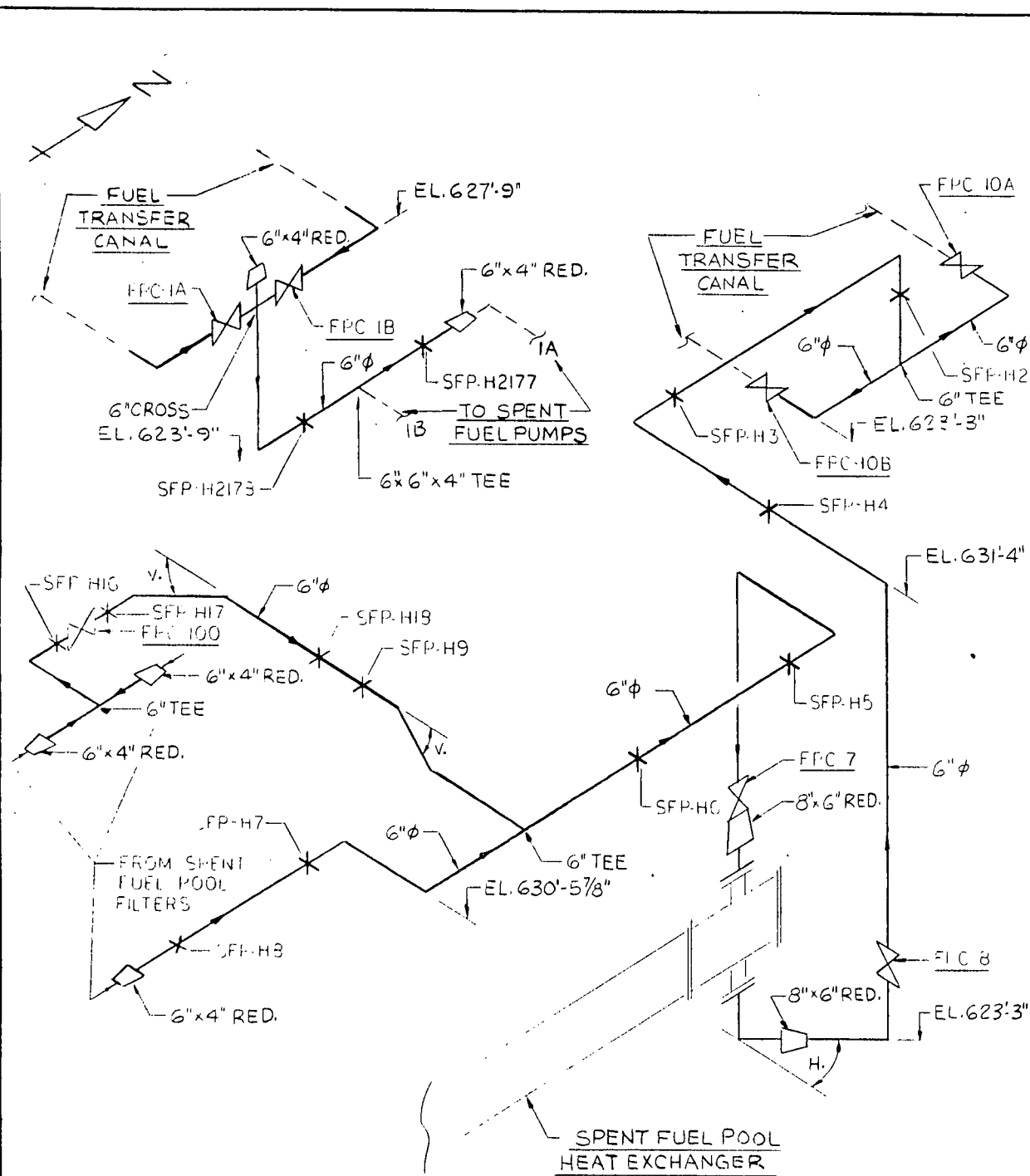
WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

## INSERVICE INSPECTION ISOMETRIC CHEMICAL AND VOLUME CONTROL BORIC ACID TANK FEED

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                    |        |
|----------|--------------------|--------|
| DRAWN    | DESIGNED           | AED    |
| SCALE    | CHECKED            |        |
| APPROVED | PROJECT & DWG. NO. | SHT OF |
|          | 237127A-           | M-1190 |





**PRELIMINARY  
COPY**

X - COMPONENT SUPPORT

CLASS III

# REVISIONS

WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC**

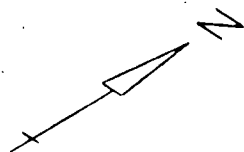
**SPENT FUEL POOL COOLING (SFP)**

DESIGNED BY

**WISCONSIN PUBLIC SERVICE CORP.**

GREEN BAY, WISCONSIN

|          |                   |         |
|----------|-------------------|---------|
| DRAWN    | DESIGNED          | AED     |
| 1/11/83  |                   |         |
| SCALE    | CHECKED           |         |
|          | D.M.              | 1-17-83 |
| APPROVED | PROJECT & DWG. NO | SHT OF  |
|          | 237127A-          | M-1191  |

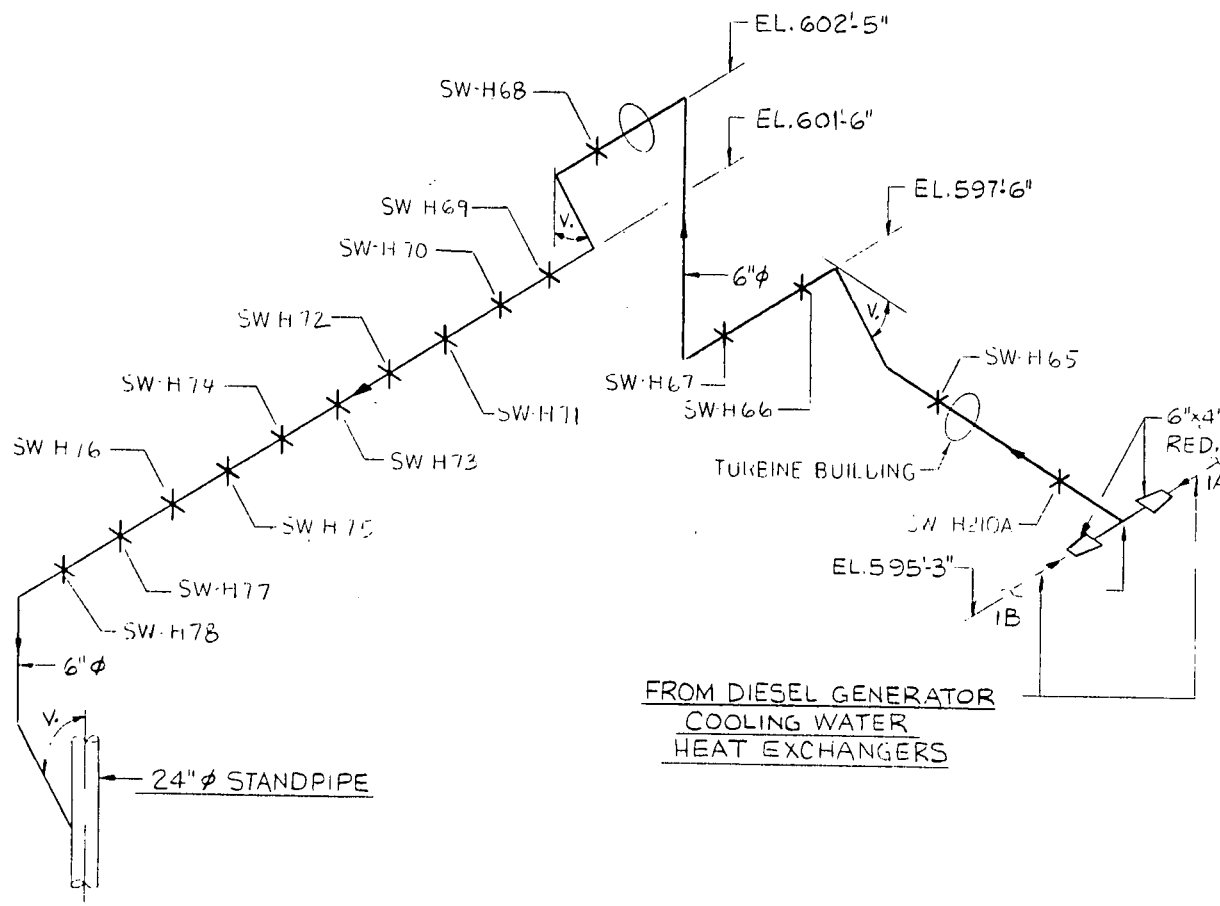


**PRELIMINARY  
COPY**

X — COMPONENT SUPPORT

CLASS III

REVISIONS

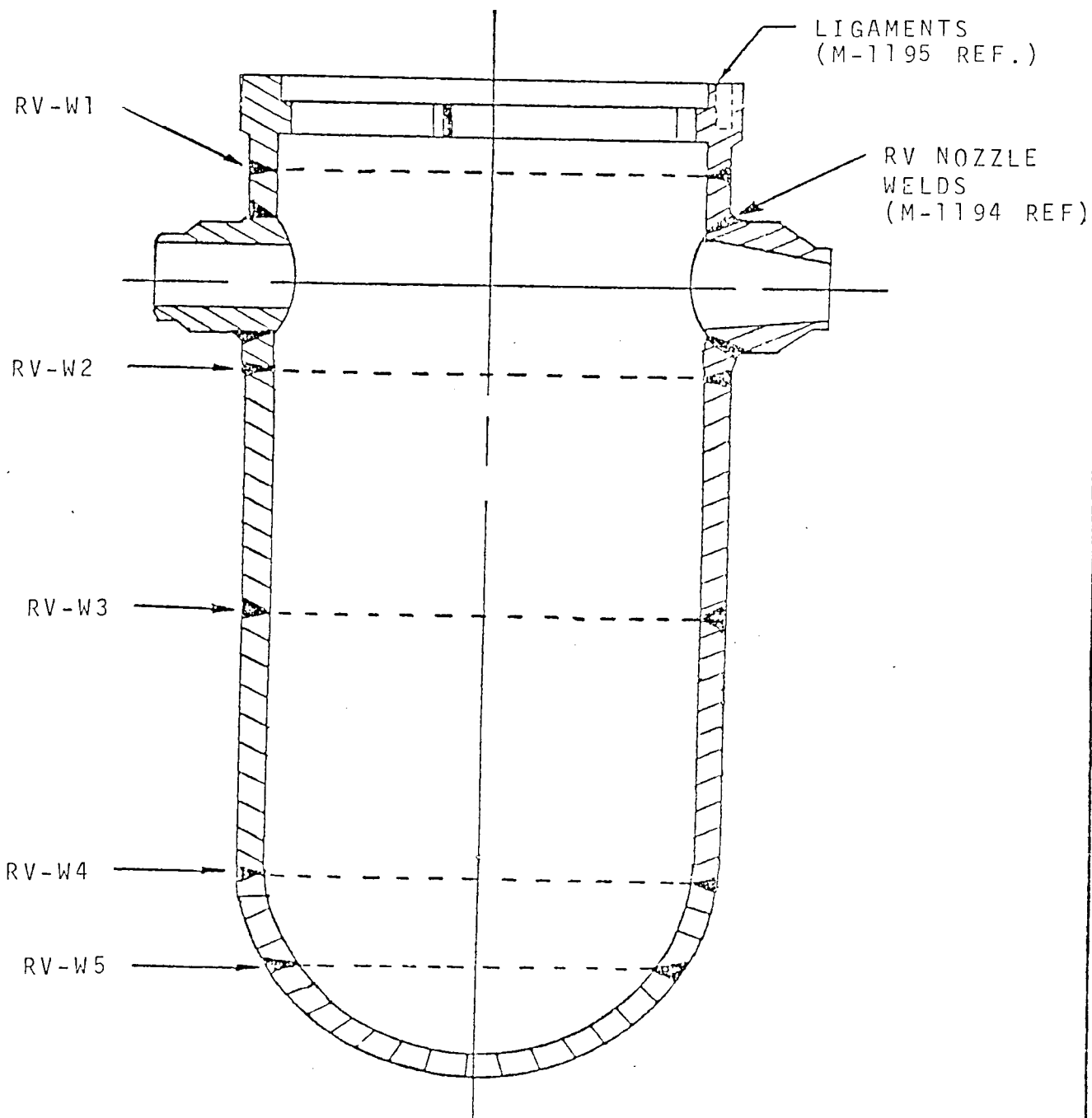


WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1  
CARLTON, KEWAUNEE COUNTY, WISCONSIN

**INSERVICE INSPECTION ISOMETRIC  
SERVICE WATER SYSTEM (SW)  
DIESEL GENERATOR COOLING HEAT  
EXCHANGERS TO STANDPIPE**

DESIGNED BY  
**WISCONSIN PUBLIC SERVICE CORP.**  
GREEN BAY, WISCONSIN

|          |                    |        |
|----------|--------------------|--------|
| DRAWN    | DESIGNED           | AED    |
| SCALE    | CHECKED            |        |
| APPROVED | PROJECT & DWG. NO. | SHT OF |
|          | 237127A-           | M-1192 |



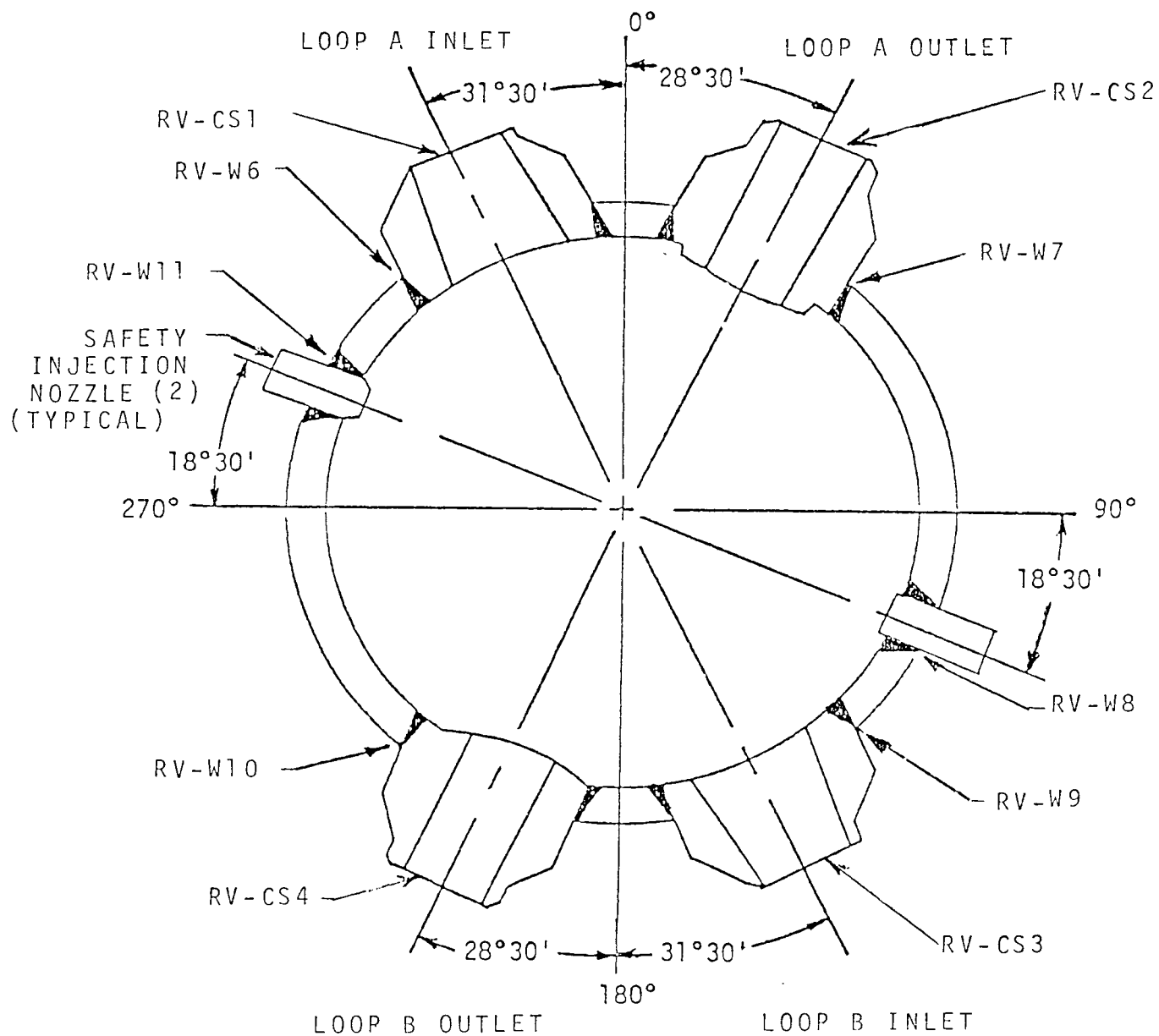
**PRELIMINARY  
COPY**

SHEET 1 OF 7

INSERVICE INSPECTION COMPONENT  
REACTOR VESSEL - WELDS

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A-M-1193



COMPONENT SUPPORTS ARE INTEGRAL TO INLET AND OUTLET NOZZLES

**PRELIMINARY  
COPY**

SHEET 2 OF 7

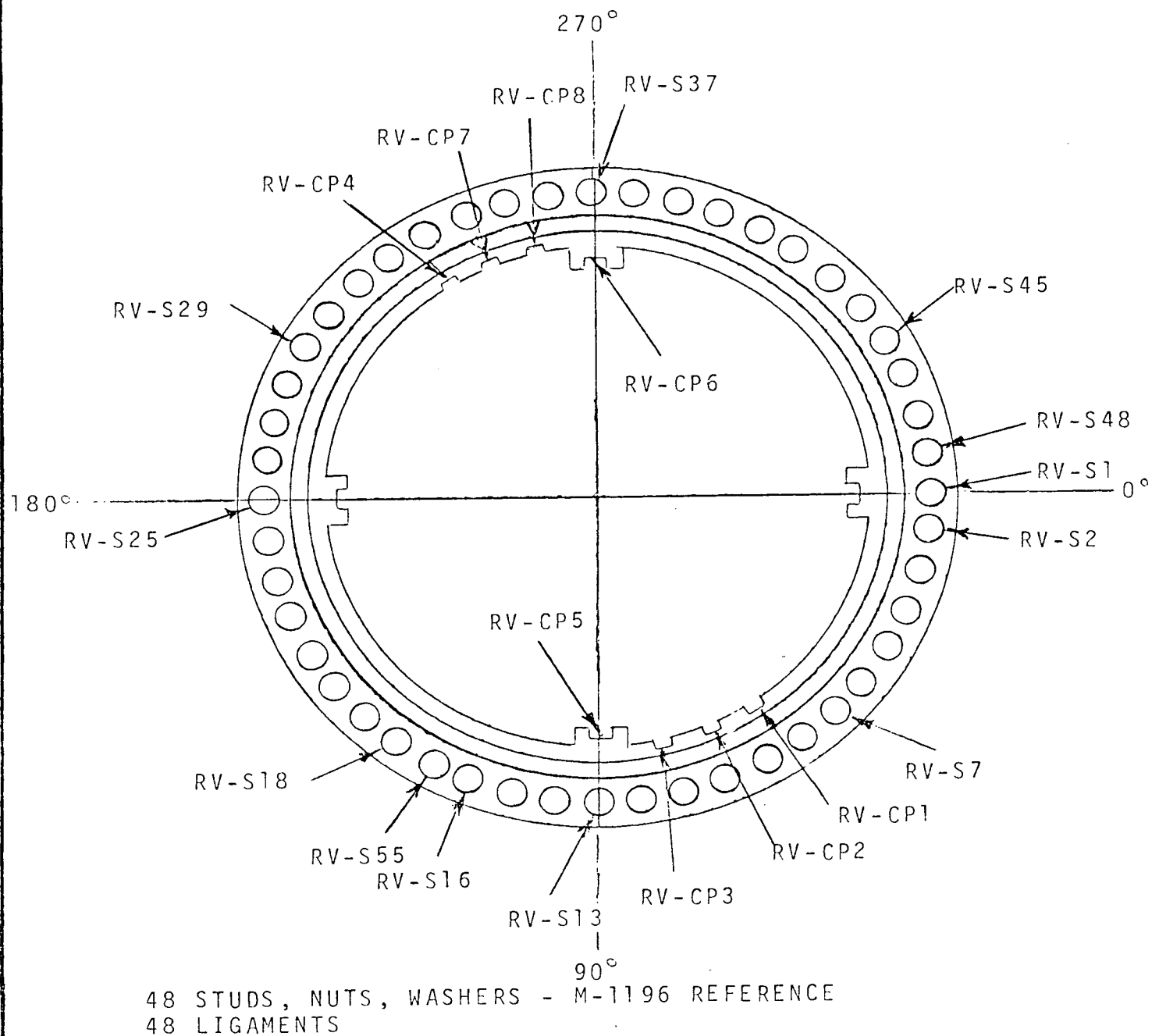
INSERVICE INSPECTION COMPONENT  
REACTOR VESSEL - NOZZLE WELDS

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1194

CLASS I - ILLUSTRATION

1-14-83



PRELIMINARY  
COPY

SHEET 3 OF 7

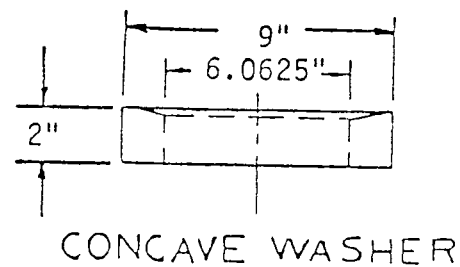
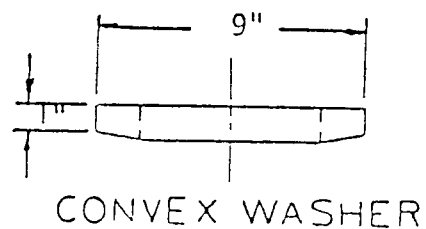
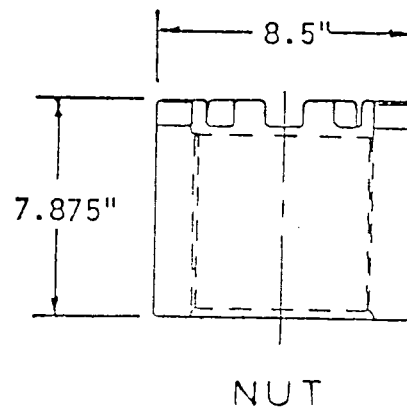
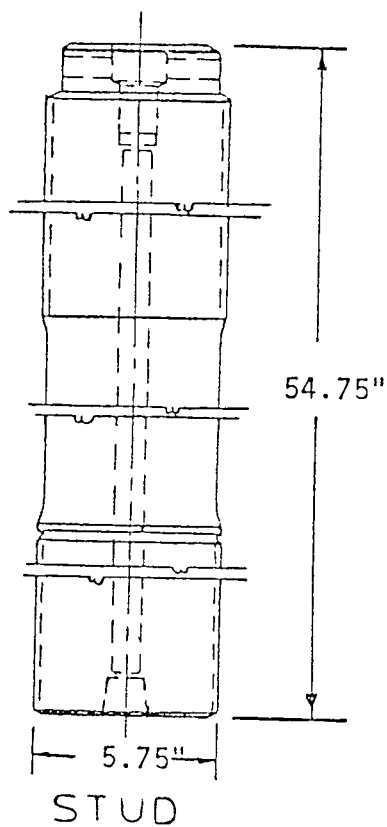
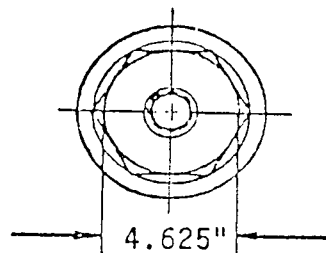
INSERVICE INSPECTION COMPONENT  
REACTOR VESSEL - STUD AND  
LIGAMENT LOC. - CLAD PATCHES

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1195

CLASS I - ILLUSTRATION

I-14-83



PRELIMINARY  
COPY

SHEET 4 OF 7

INSERVICE INSPECTION COMPONENT  
REACTOR VESSEL STUD, NUT  
AND WASHERS

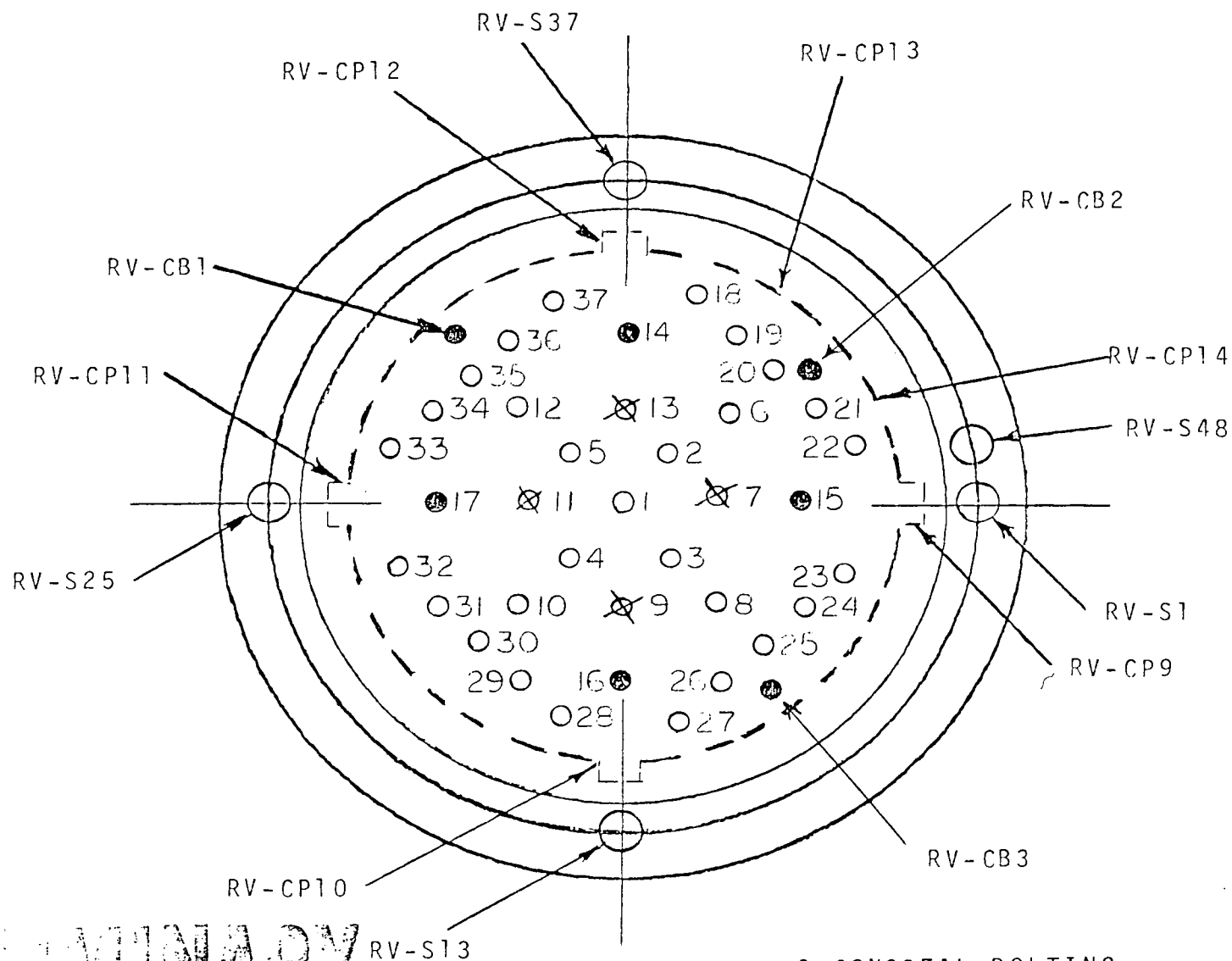
WISCONSIN PUBLIC SERVICE CORP.

CLASS I - ILLUSTRATION

1-14-83

DWG.NO. 237127A- M-1196

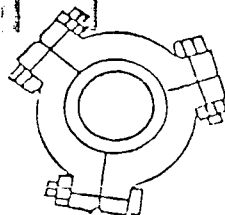
HOLD CRDH NUMBERS



●=CONOSEAL BOLTING  
 O=CONTROL ROD DRIVE  
 HOUSING-REF. M-1198  
 X=CONTROL ROD DRIVE  
 HOUSING - NOT USED

CRDH NUMBERS TO BE PRECEDED  
 BY RV-CD

SHEET 5 OF 7



Marmon Clamp

CONOSEAL BOLTING

INSERVICE INSPECTION COMPONENT  
 REACTOR VESSEL - HEAD CLAD  
 PATCHES, CONOSEAL BOLTING AND  
 CRDH

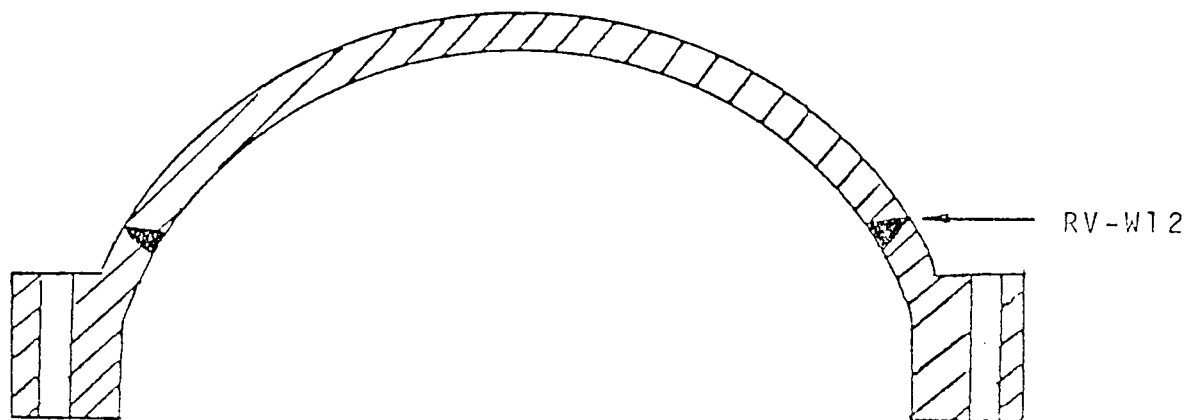
WISCONSIN PUBLIC SERVICE CORP.

DWG.NO. 237127A- M-1197

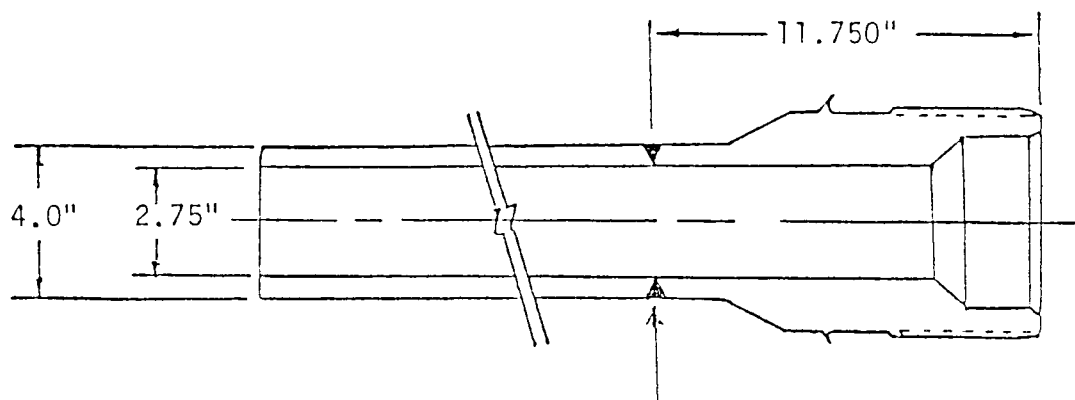
CLASS I - ILLUSTRATION

1-14-83

PRELIMINARY  
 COPY



HEAD WELD



WELD

CONTROL ROD DRIVE HOUSING (TYP)

PRELIMINARY  
COPY

SHEET 6 OF 7

INSERVICE INSPECTION COMPONENT  
REACTOR VESSEL - HEAD WELD  
CRD HOUSING WELD

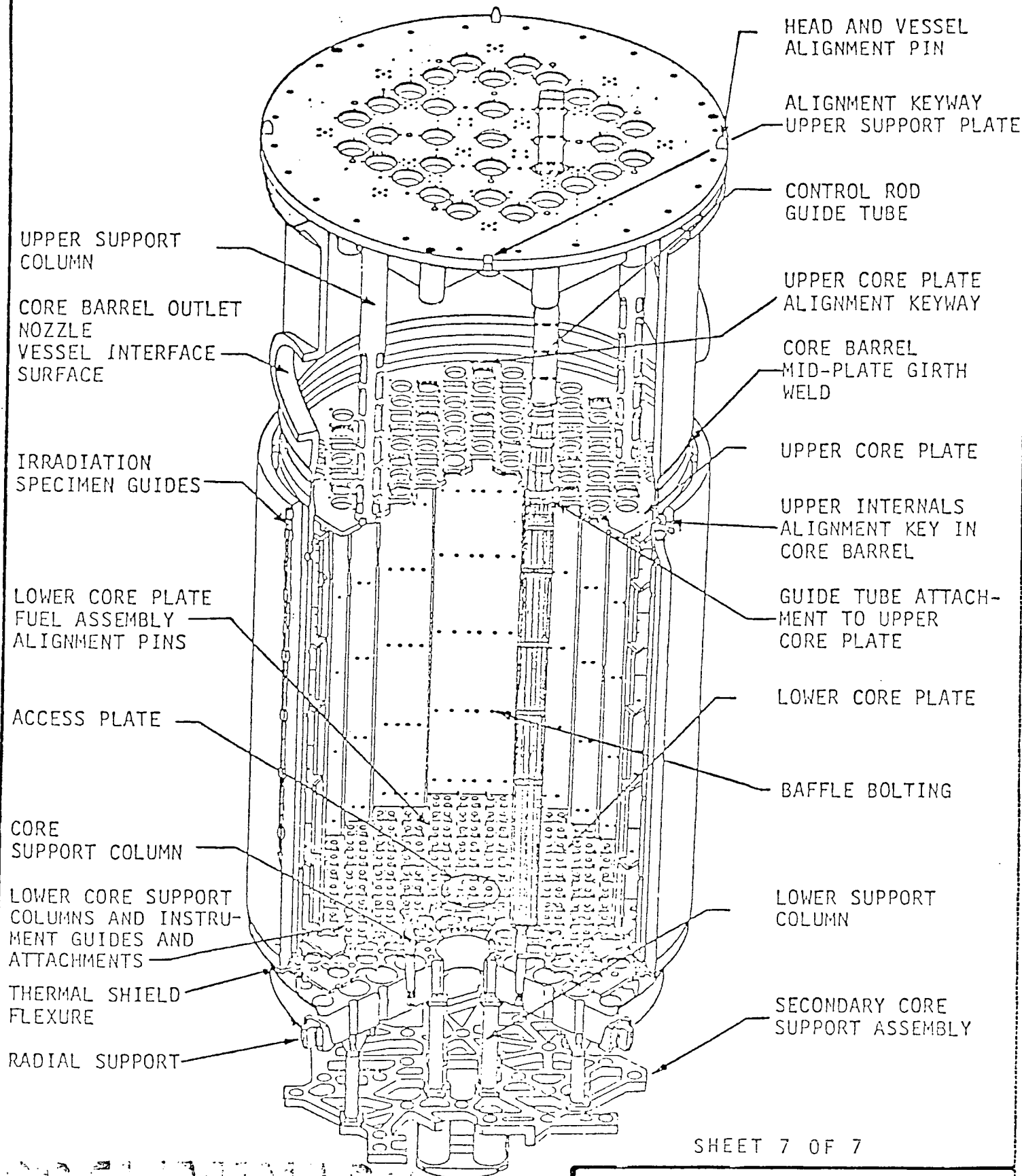
WISCONSIN PUBLIC SERVICE CORP.

CLASS I - ILLUSTRATION

1-14-83

DWG.NO. 237127A- M-1198





SHEET 7 OF 7

PRELIMINARY  
COPY

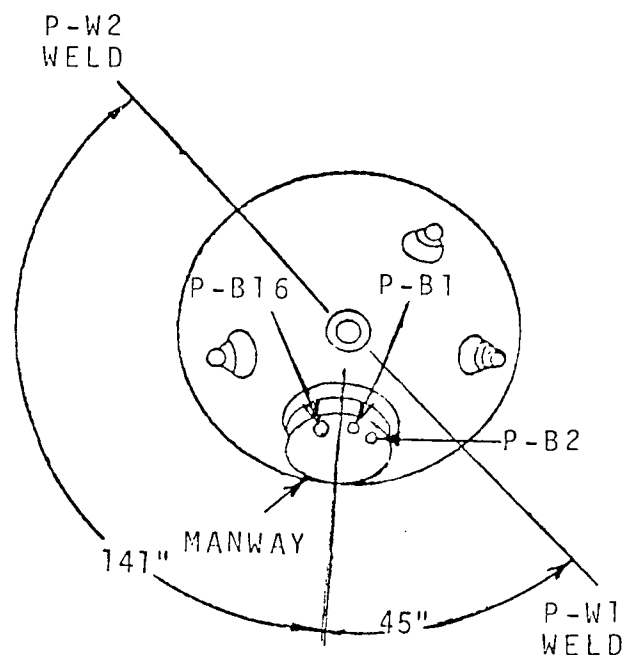
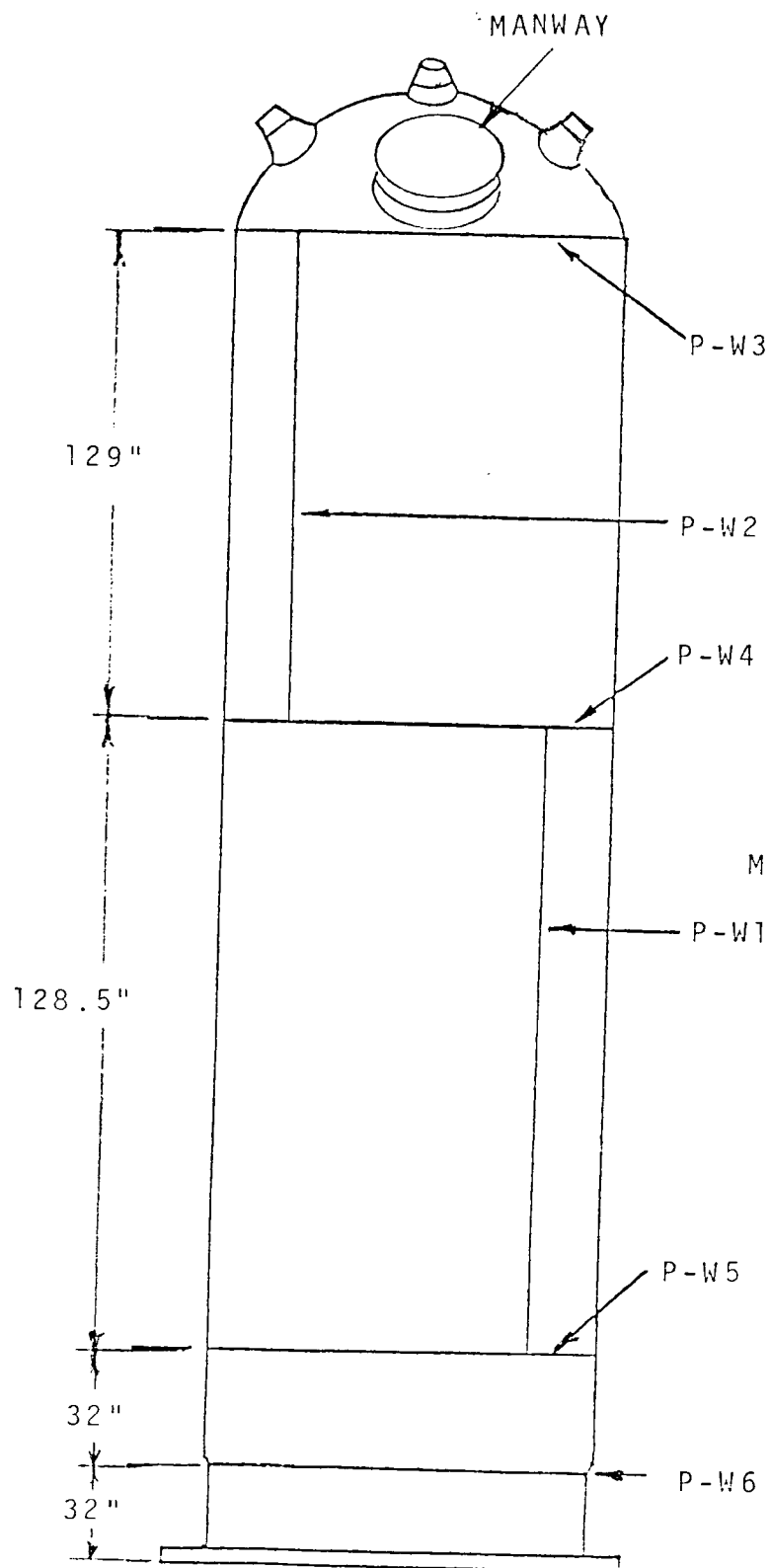
CLASS I - ILLUSTRATION

1-14-83

INSERVICE INSPECTION COMPONENT  
REACTOR VESSEL INTERNALS

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1199



TOP VIEW

MANWAY BOLTING - P-B1 THRU P-B16

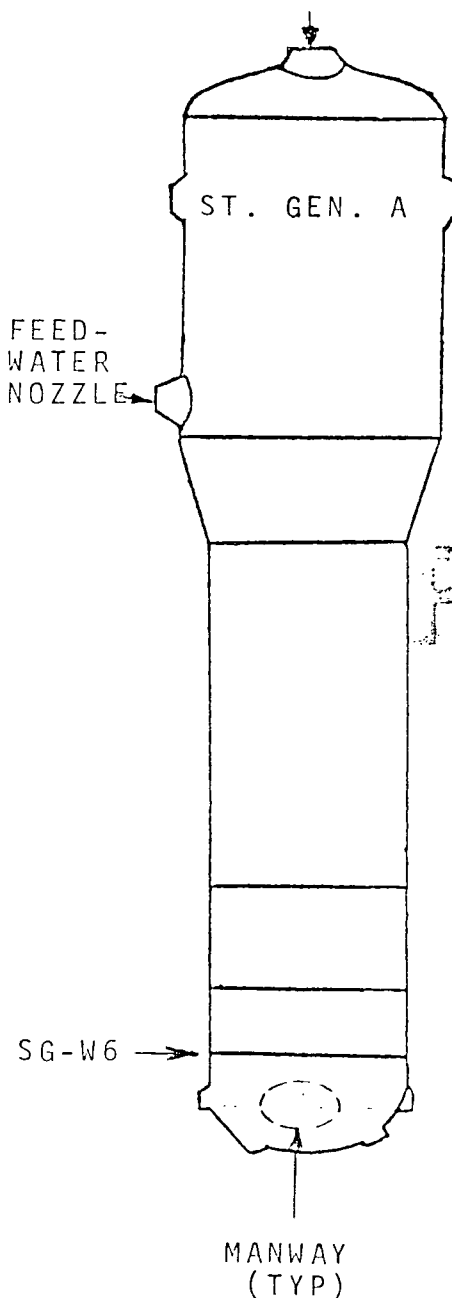
0 REFERENCE FOR WELDS ARE AS FOLLOWS:

P-W1 & P-W2 - BOTTOM OF WELD  
 P-W3 - CENTERLINE OF MANWAY-  
 CLOCKWISE  
 P-W4, P-W5 & P-W6 - FROM WELD  
 P-W1-CLOCKWISE

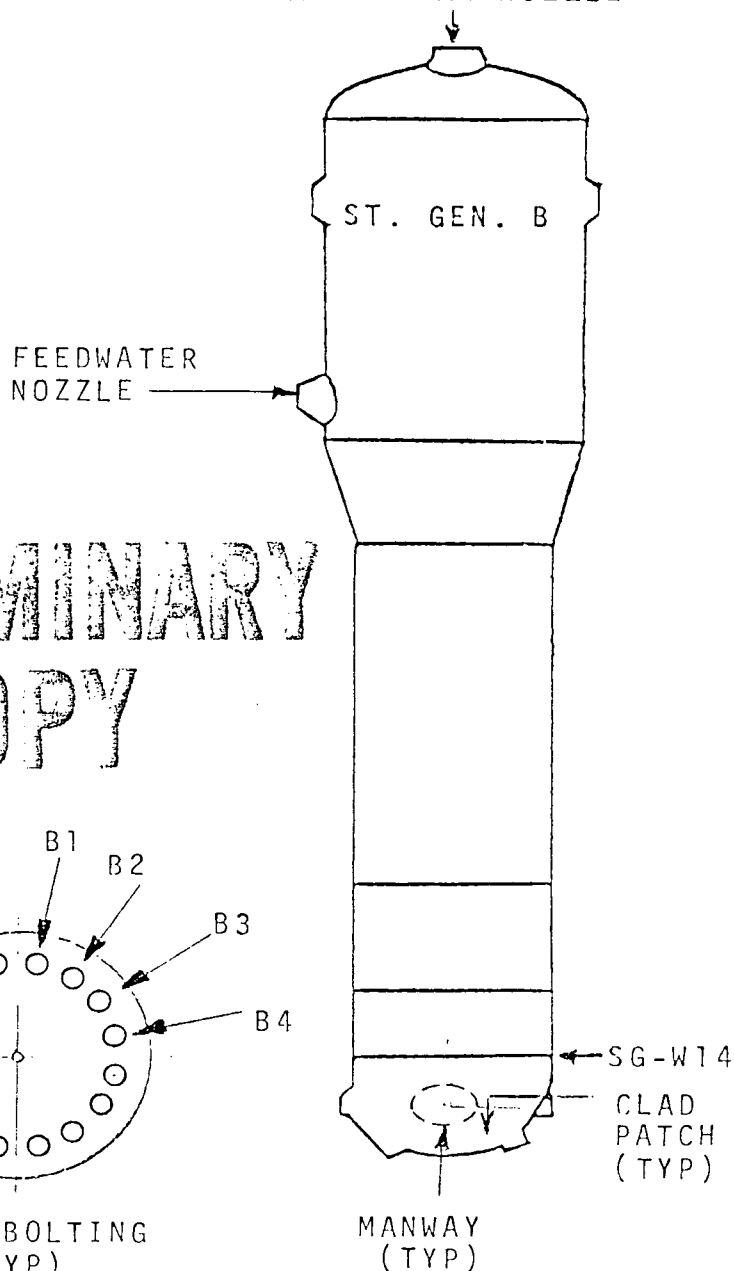
PRELIMINARY  
 COPY

CIRCUMFERENCE 285.47"

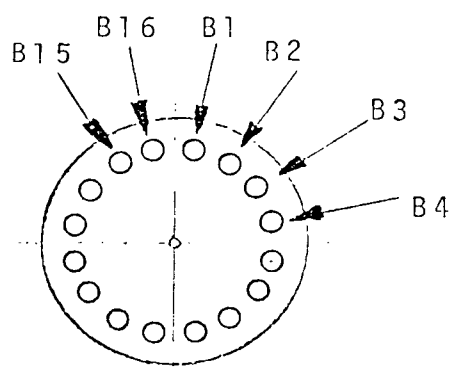
MAIN STEAM NOZZLE



MAIN STEAM NOZZLE



PRELIMINARY  
COPY



MANWAY BOLTING  
(TYP)

S.G.A.

HOTSIDE  
COLD SIDE

MANWAY BOLTING

SG-B1 THRU B16  
SG-B17 THRU B32

CLAD PATCHES

SG-CP1  
SG-CP2

S.G.B.

HOTSIDE  
COLD SIDE

SG-B33 THRU B48  
SG-B49 THRU B64

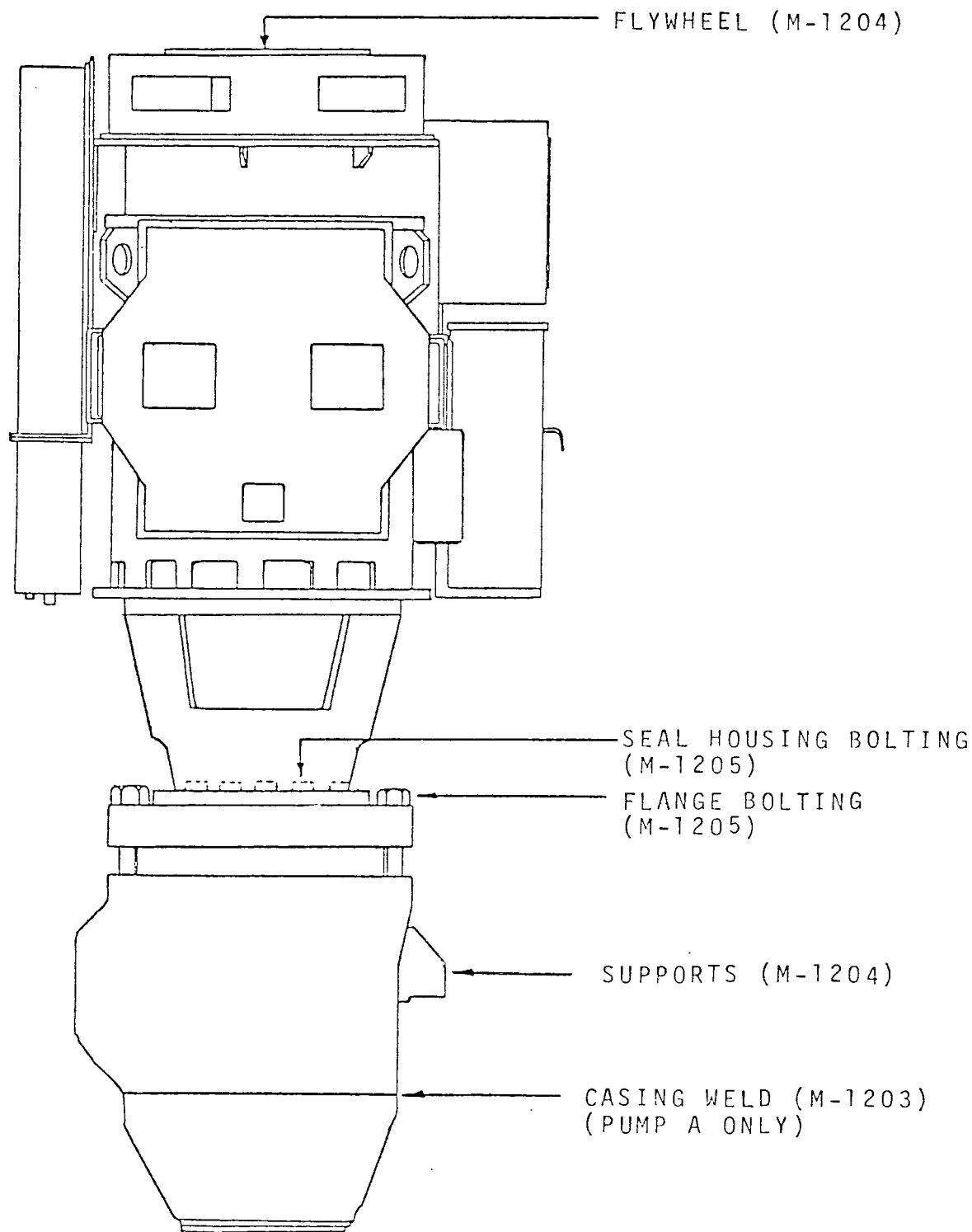
SG-CP3  
SG-CP4

ZERO REFERENCE FOR WELDS SG-W6  
AND SG-W12 IS CENTERLINE OF  
HOT SIDE MANWAY

**INSERVICE INSPECTION COMPONENT**

STEAM GENERATORS A & B - WELDS  
CLAD PATCHES & MANWAY BOLTING

**WISCONSIN PUBLIC SERVICE CORP.**



PRELIMINARY  
COPY

SHEET 1 OF 4

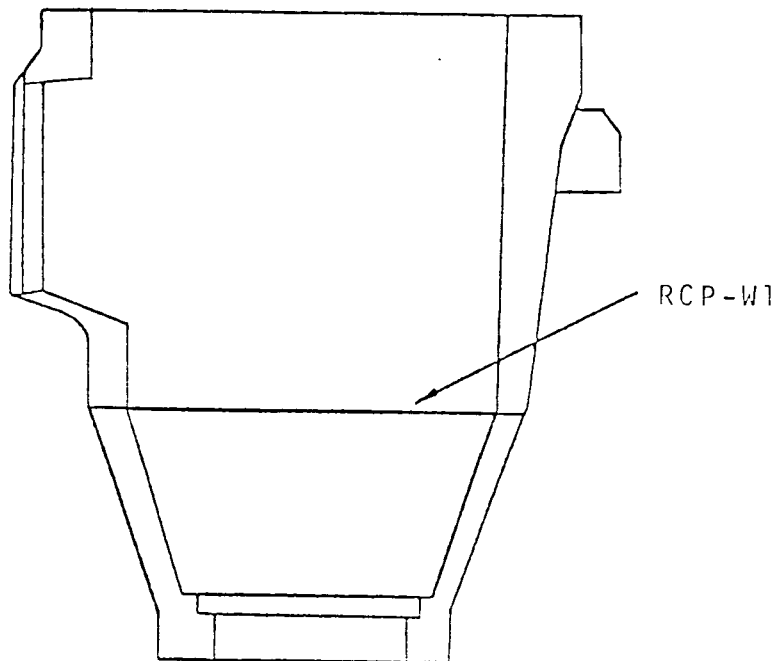
INSERVICE INSPECTION COMPONENT  
REACTOR COOLANT PUMPS

WISCONSIN PUBLIC SERVICE CORP.

CLASS I - ILLUSTRATION

1-14-83

DWG. NO. 237127A- M-1202



PRELIMINARY  
COPY

SHEET 2 OF 4

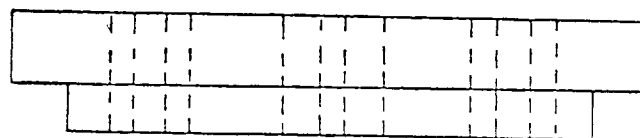
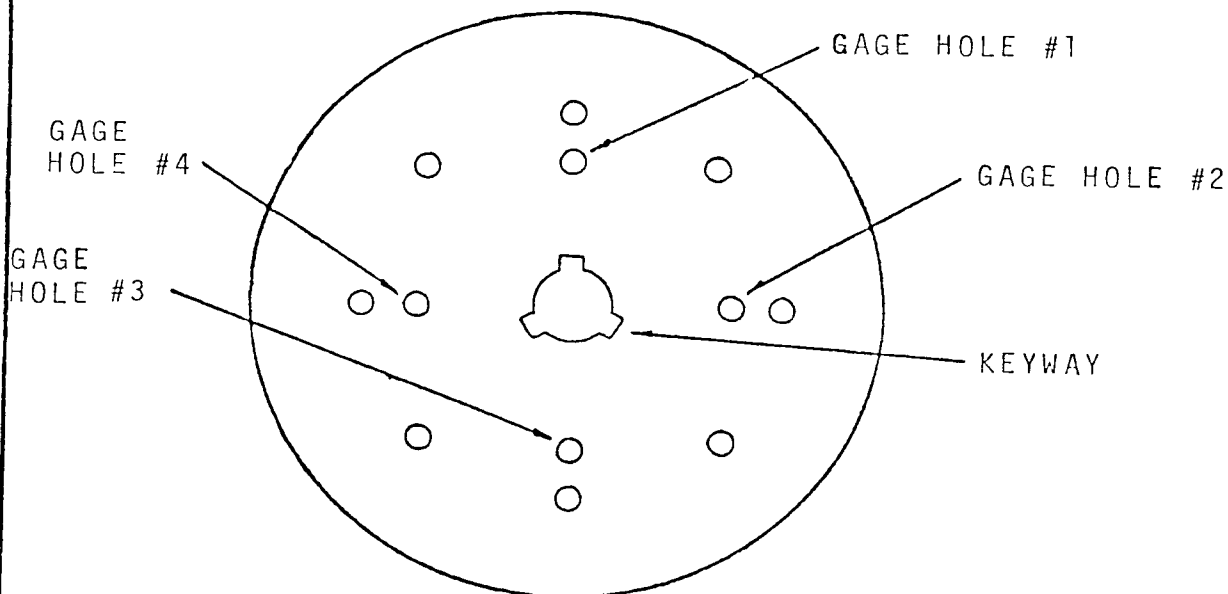
INSERVICE INSPECTION COMPONENT  
REACTOR COOLANT PUMP -  
CASING WELD (PUMP A ONLY)

WISCONSIN PUBLIC SERVICE CORP.

CLASS I - ILLUSTRATION

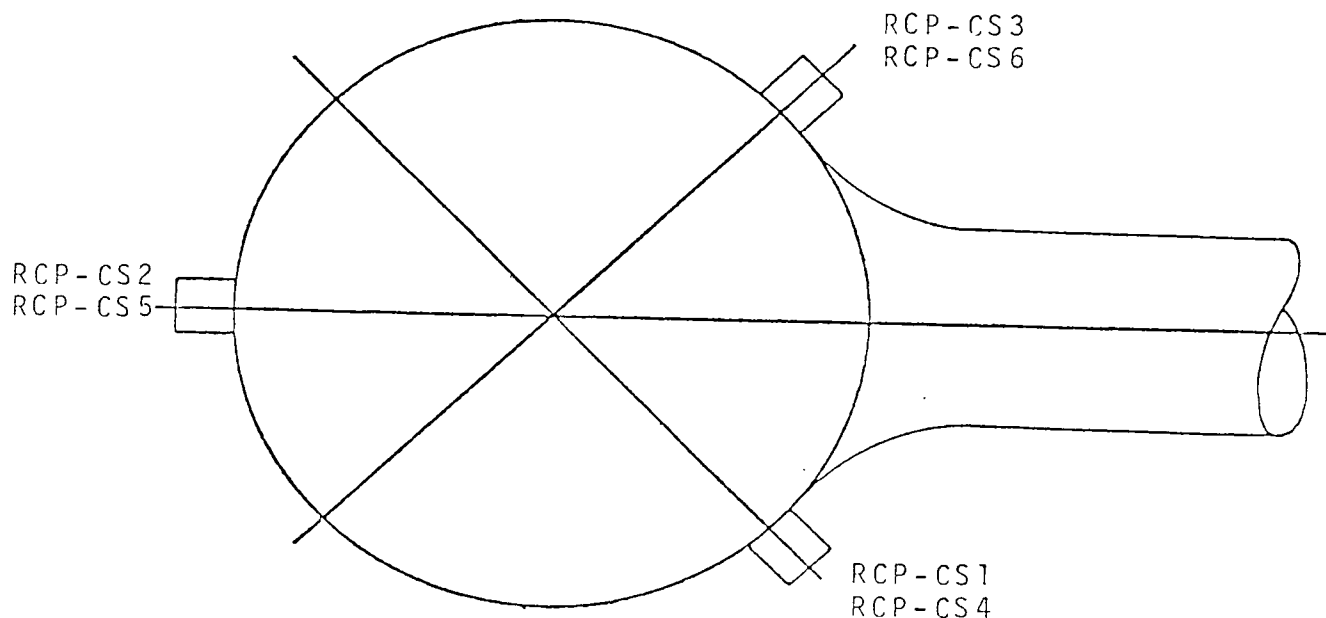
1-14-83

DWG. NO. 237127A- M-1203



FLY WHEEL

PRELIMINARY  
COPY



SUPPORTS

SHEET 3 OF 4

PUMP "A" SUPPORTS - RCP-CS1 THRU RCP-CS3  
PUMP "B" SUPPORTS - RCP-CS4 THRU RCP-CS6

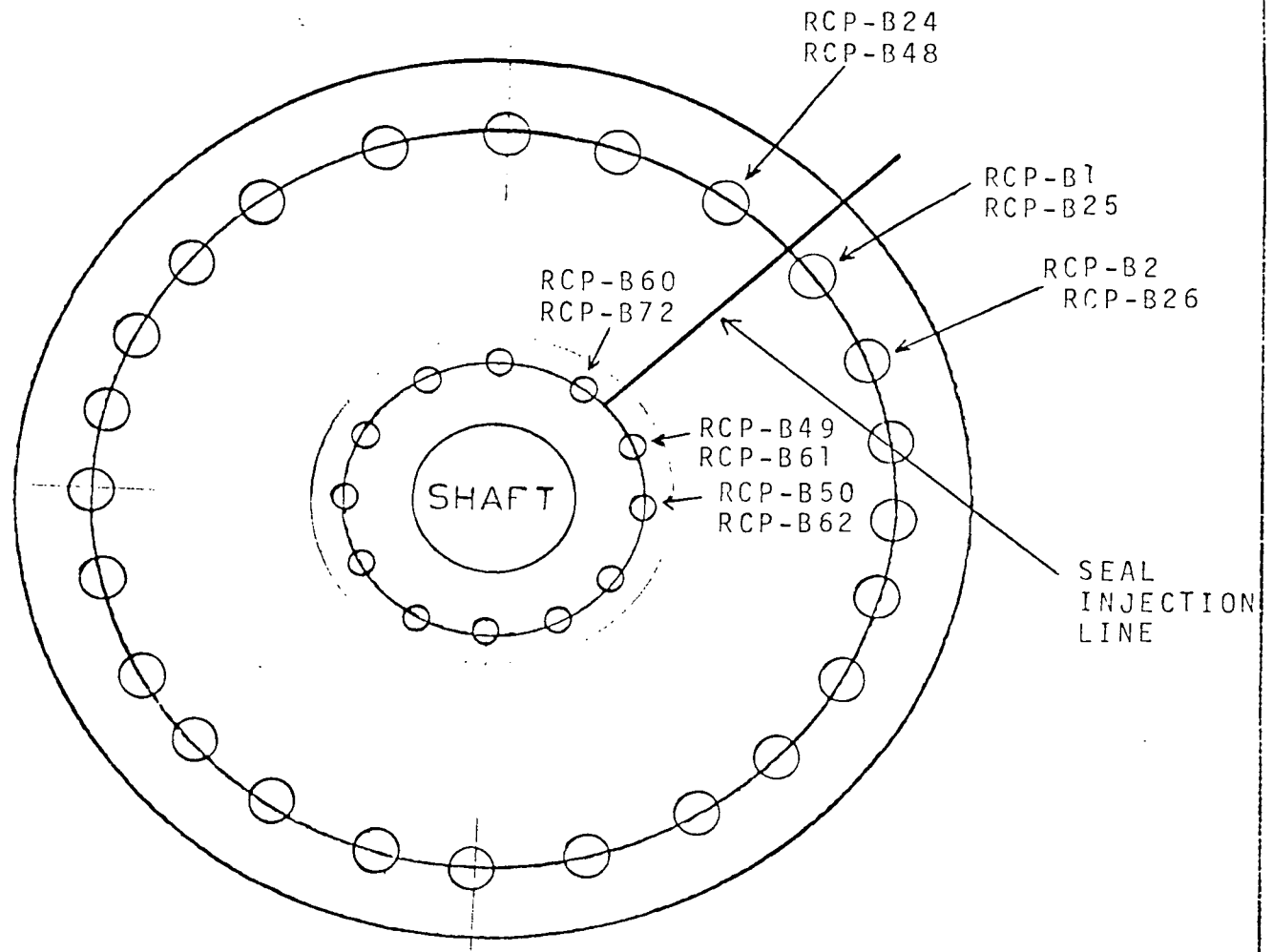
INSERVICE INSPECTION COMPONENT  
REACTOR COOLANT PUMP -  
FLYWHEEL & SUPPORTS

WISCONSIN PUBLIC SERVICE CORP.

CLASS I - ILLUSTRATION

1-14-83

DWG.NO. 237127A-M-1204



PUMP

A  
B

MAIN FLANGE BOLTING

RCP-B1 THRU RCP-B24  
RCP-B25 THRU RCP-B48

SEAL HOUSING BOLTING

RCP-B49 THRU RCP-B60  
RCP-B61 THRU RCP-B72

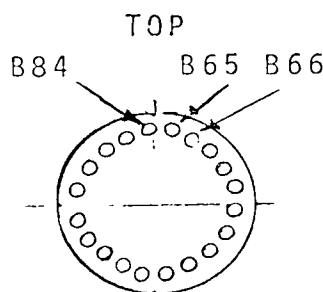
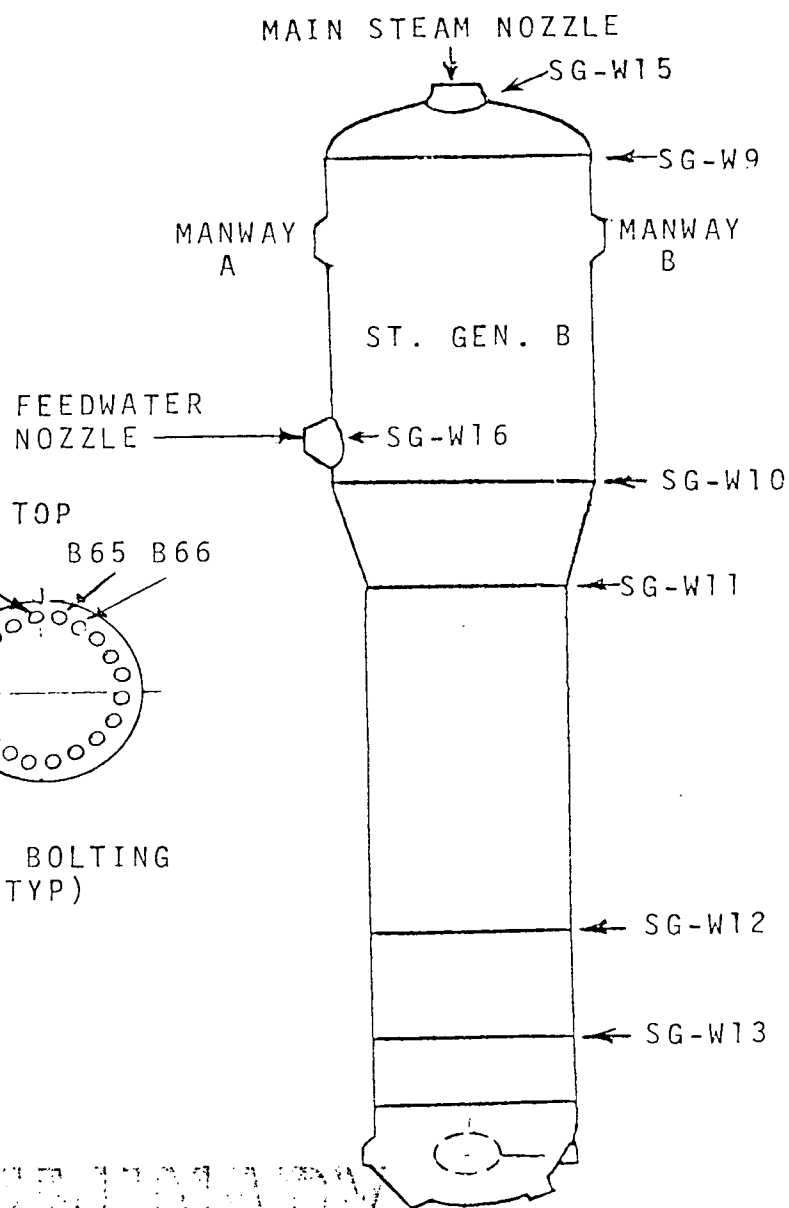
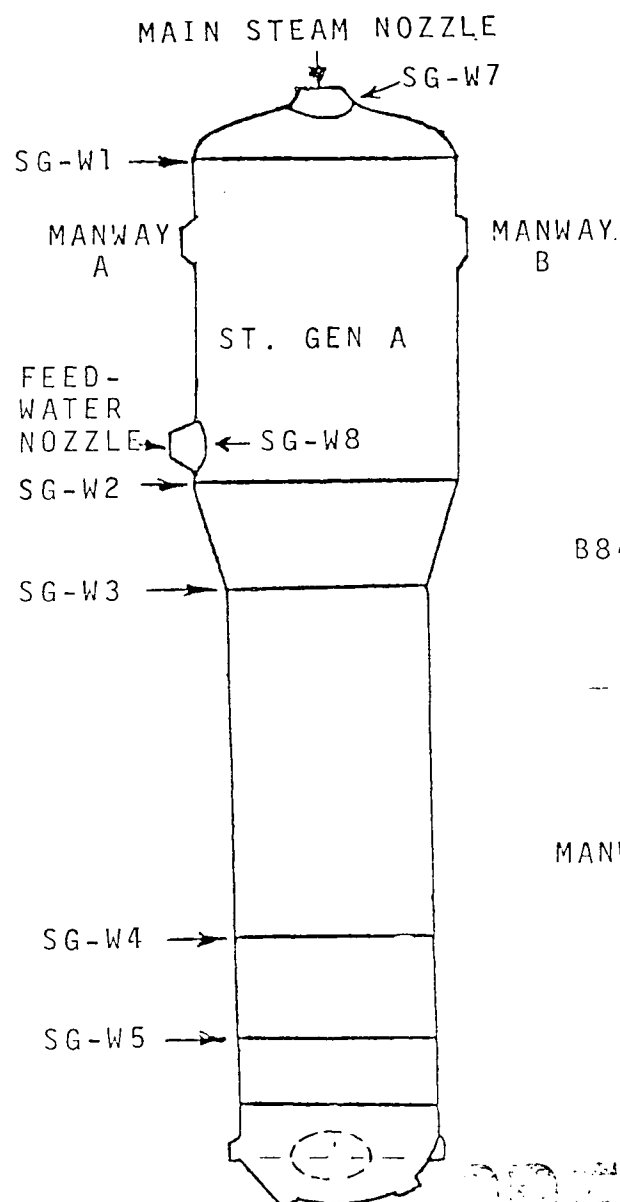
PRELIMINARY  
COPY

SHEET 4 OF 4

INSERVICE INSPECTION COMPONENT  
REACTOR COOLANT PUMP - FLANGE  
AND SEAL HOUSING BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG.NO. 237127A- M-1205



MANWAY BOLTING  
(TYP)

PRELIMINARY  
COPY

S.G.A

A  
B

MANWAY BOLTING

SG-B65 THRU SG-B84  
SG-B85 THRU SG-B104

S.G.B

A  
B

SG-B105 THRU SG-B124  
SG-B125 THRU SG-B144

ZERO REFERENCE FOR S.G. WELDS W4, W5, W10 and W11 IS CENTERLINE OF HOT LEG MANWAY.

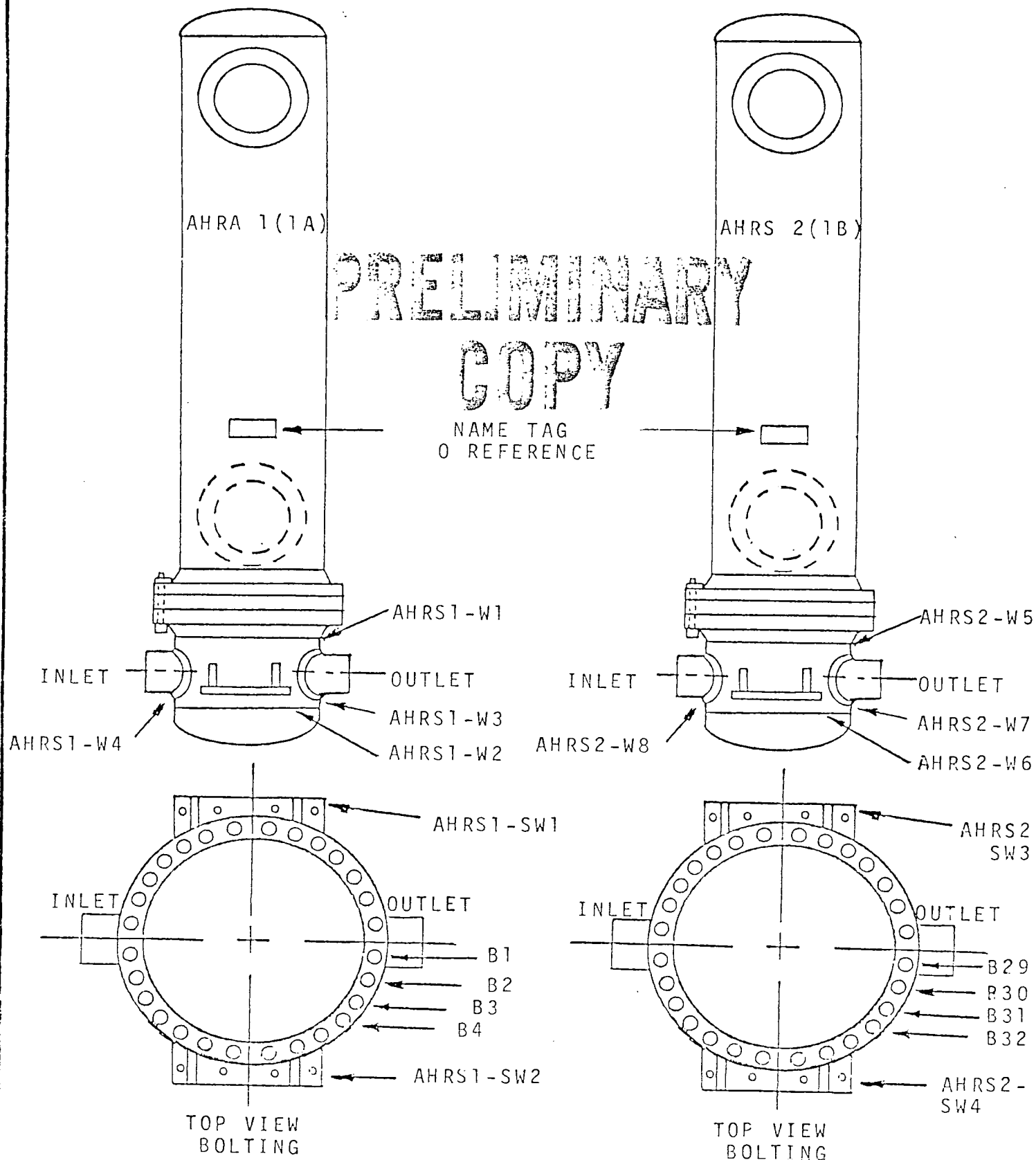
ZERO REFERENCE FOR OTHER S.G. WELDS IS CENTERLINE OF FEEDWATER NOZZLE.

INSERVICE INSPECTION COMPONENT  
STEAM GENERATORS A AND B -  
WELDS AND BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG.NO. 237127A-M-1206



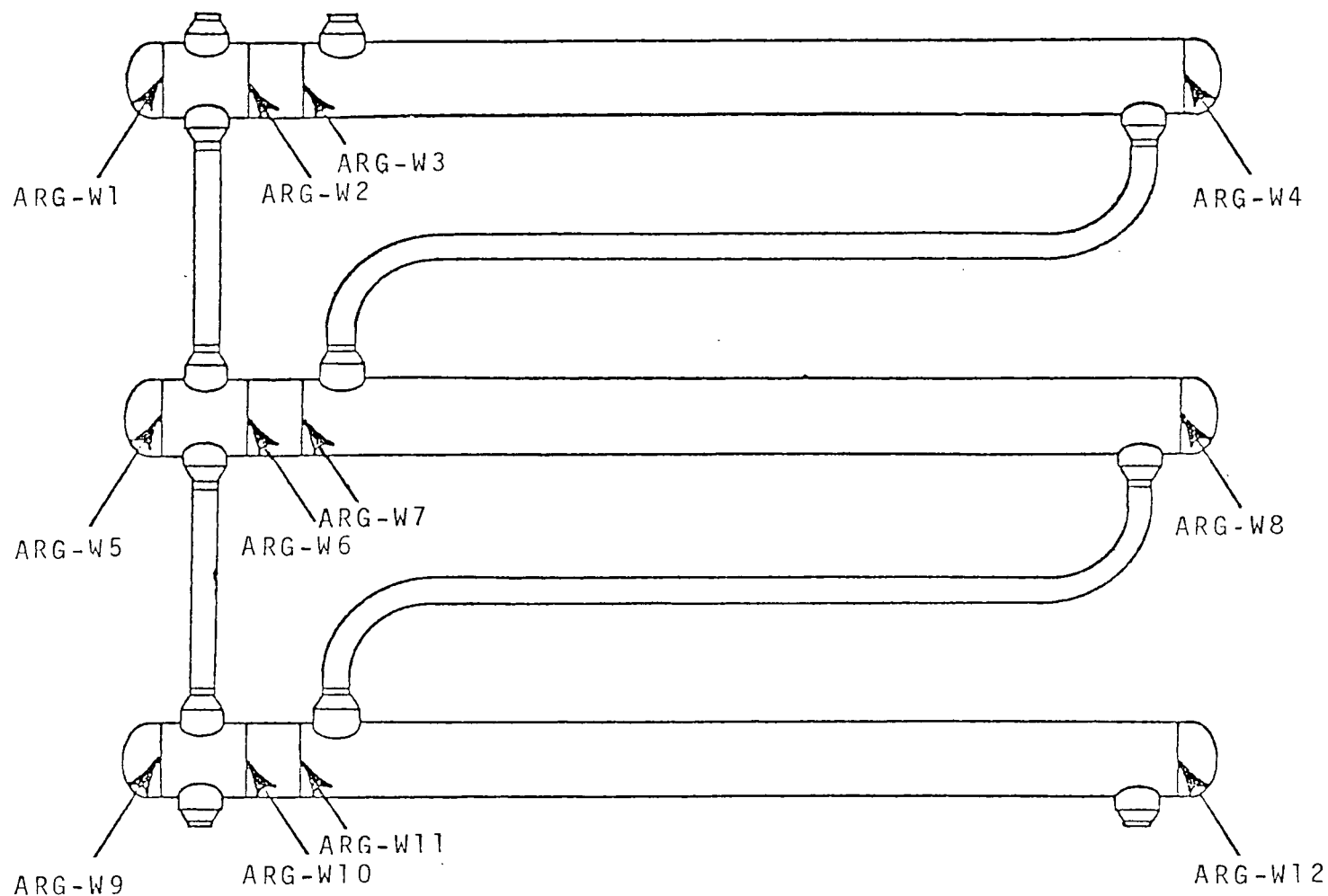


# BOLTING

AHRS1-B1 THRU AHRS1-B28  
AHRS2-B29 THRU AHRS2-B56

INSERVICE INSPECTION COMPONENT  
RESIDUAL HEAT EXCHANGERS -  
WELDS, BOLTING AND SUPPORTS

WISCONSIN PUBLIC SERVICE CORP.



PRELIMINARY  
COPY

0 REFERENCE: TOP CENTERLINE OF  
EXCHANGER

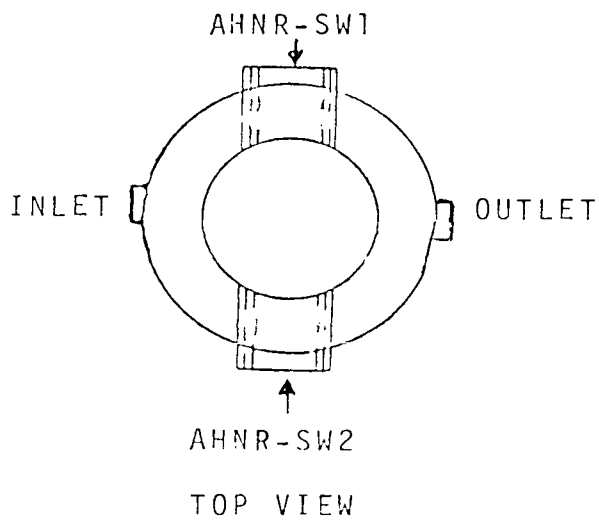
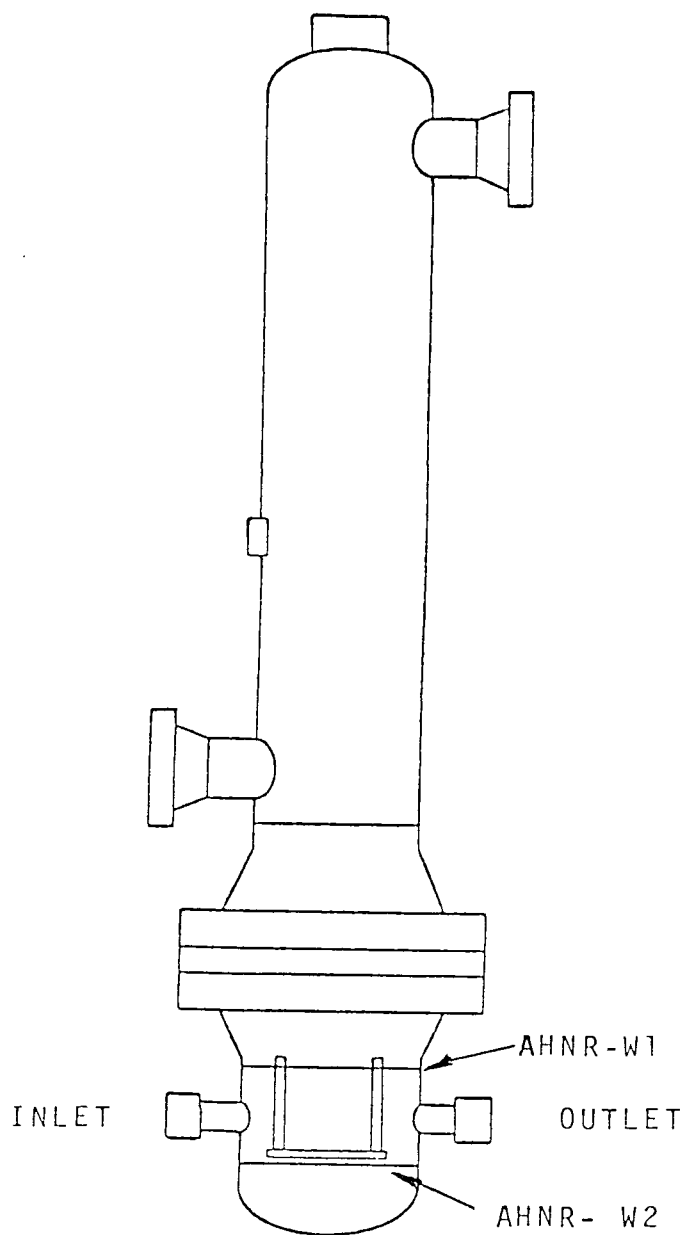
CLASS II - ILLUSTRATION

1-14-83

INSERVICE INSPECTION COMPONENT  
REGENERATIVE HEAT EXCHANGERS -  
WELDS

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1208



PRELIMINARY  
COPY

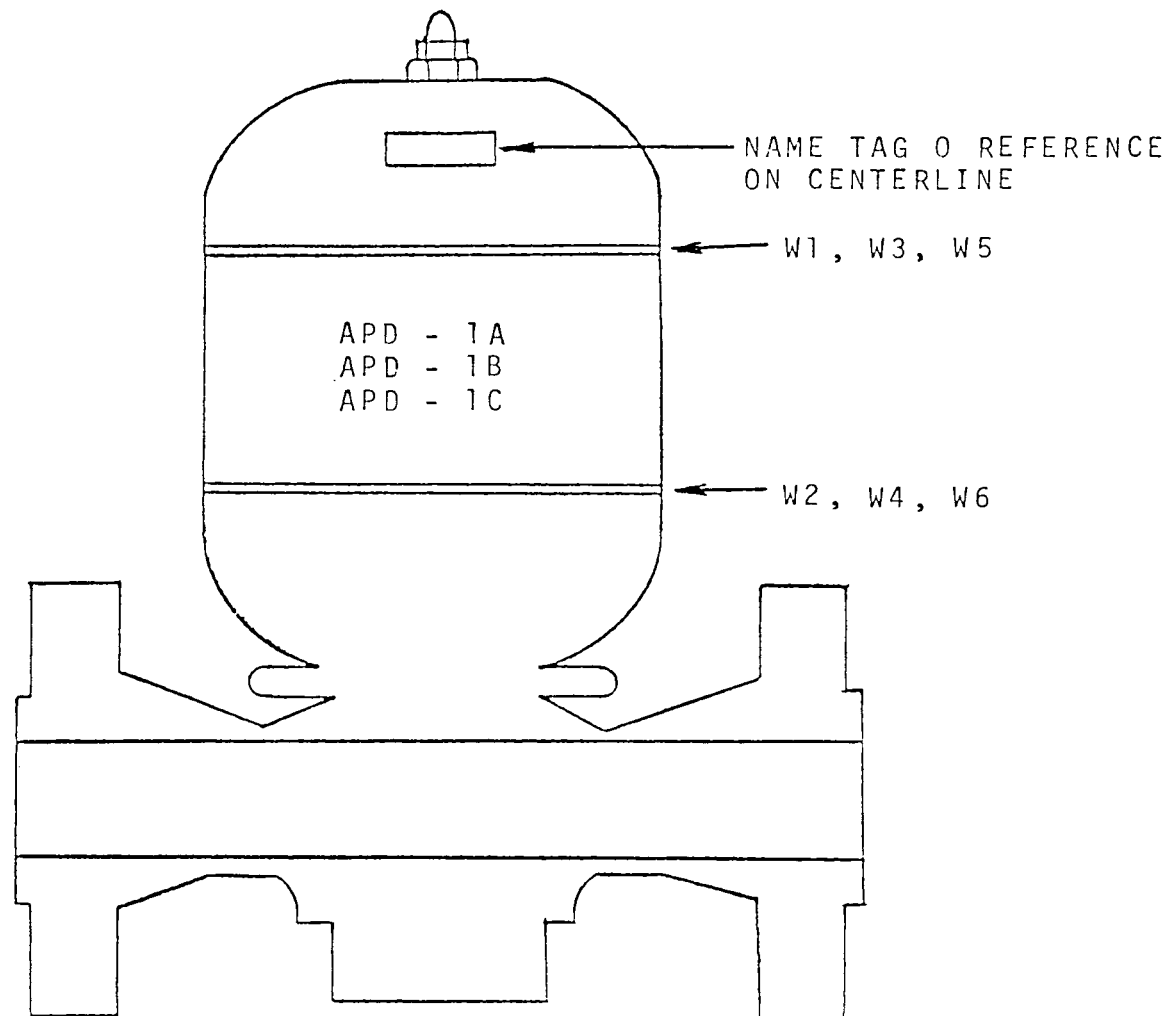
INSERVICE INSPECTION COMPONENT  
LETDOWN HEAT EXCHANGER - WELDS  
AND SUPPORTS

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A-M-1209

0 REFERENCE: CENTERLINE OF OUTLET  
NOZZLE.

CLASS II - ILLUSTRATION 1-14-83



(TYPICAL)

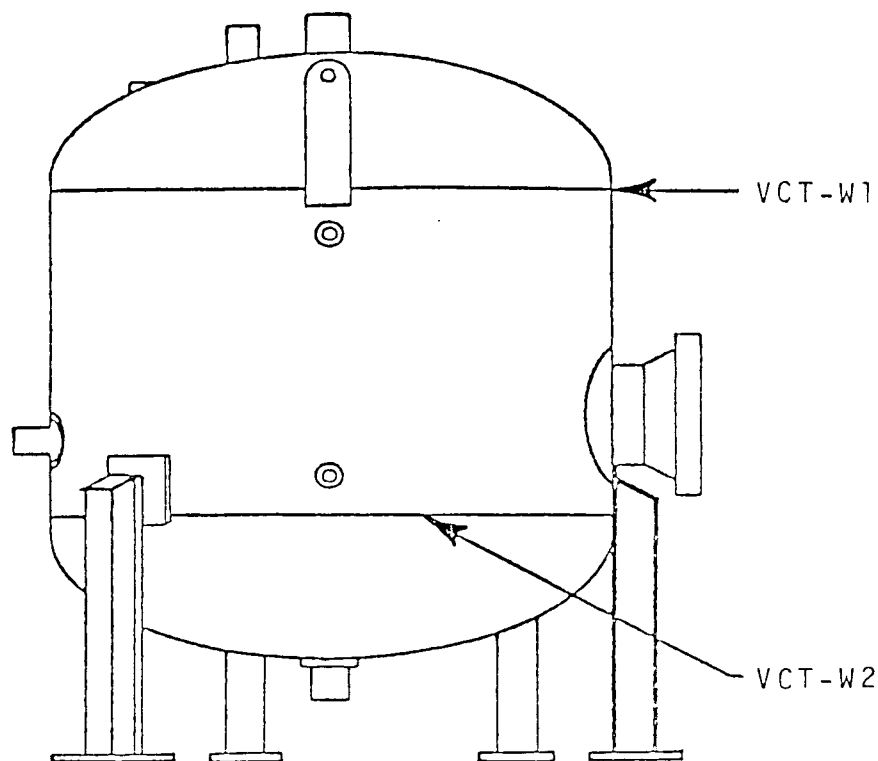
WELDS

APD-1A-W1  
APD-1A-W2  
APD-1B-W3  
APD-1B-W4  
APD-1C-W5  
APD-1C-W6

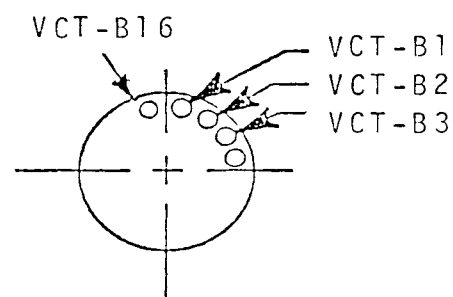
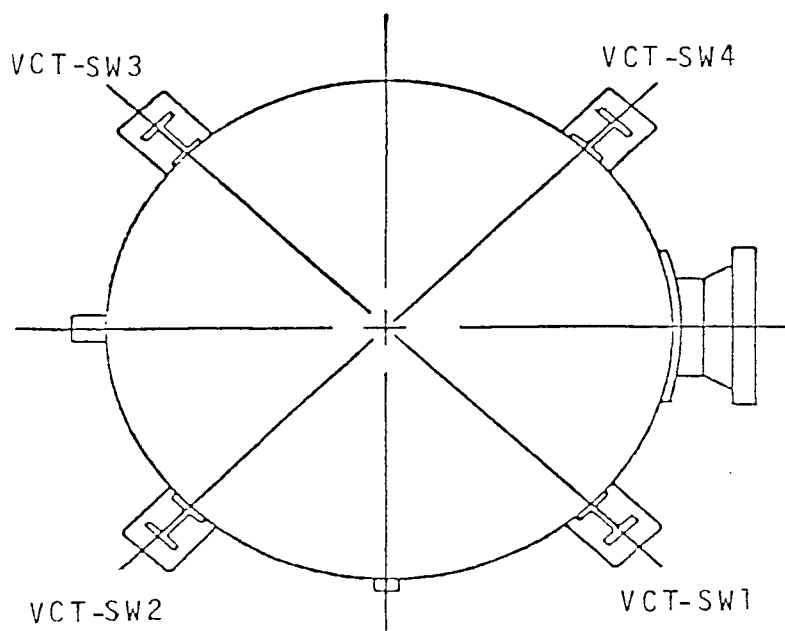
PRELIMINARY  
COPY

INSERVICE INSPECTION COMPONENT  
CHARGING PUMP PULSATION  
DAMPENERS - WELDS

WISCONSIN PUBLIC SERVICE CORP.



PRELIMINARY  
COPY



ZERO REFERENCE FOR WELDS VCT-W1  
AND VCT-W2 IS CENTERLINE OF  
MANWAY

INSERVICE INSPECTION COMPONENT  
VOLUME CONTROL TANK WELDS,  
SUPPORTS AND MANWAY BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A-M-1211

PRELIMINARY  
COPY

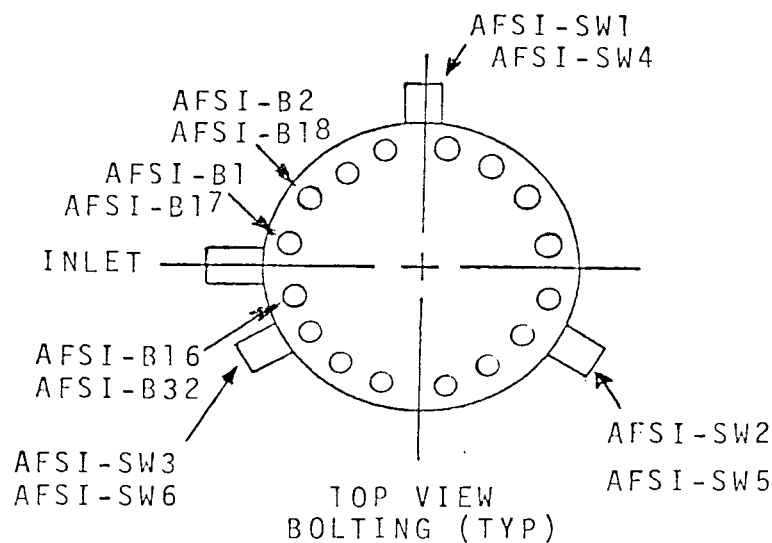
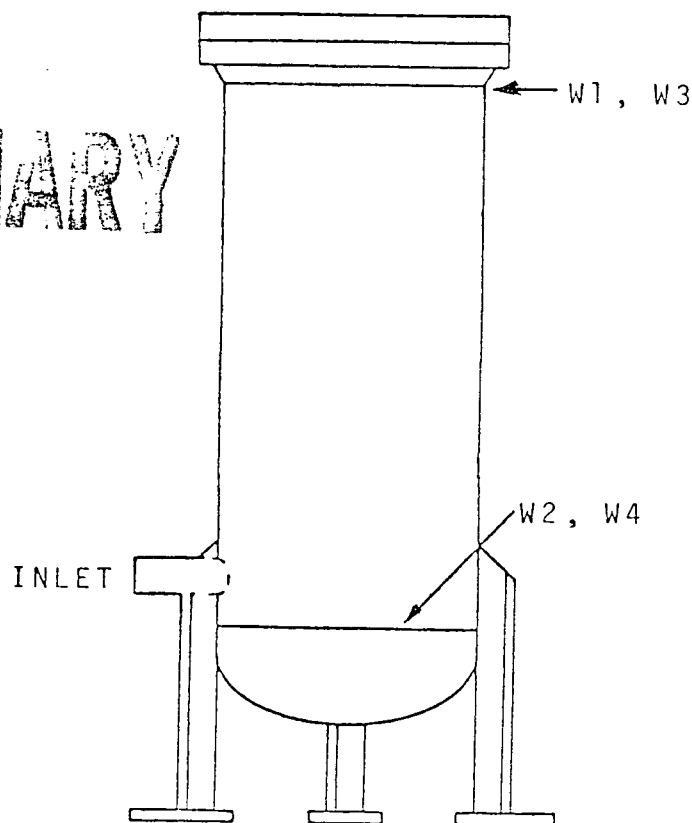
SUPPORTS

AFSI-1A

AFSI-SW1, SW2 & SW3

AFSI-1B

AFSI-SW4, SW5 & SW6



WELDS

AFSI-1A

AFSI-W1 & W2

AFSI-1B

AFSI-W3 & W4

BOLTING

AFSI-1A

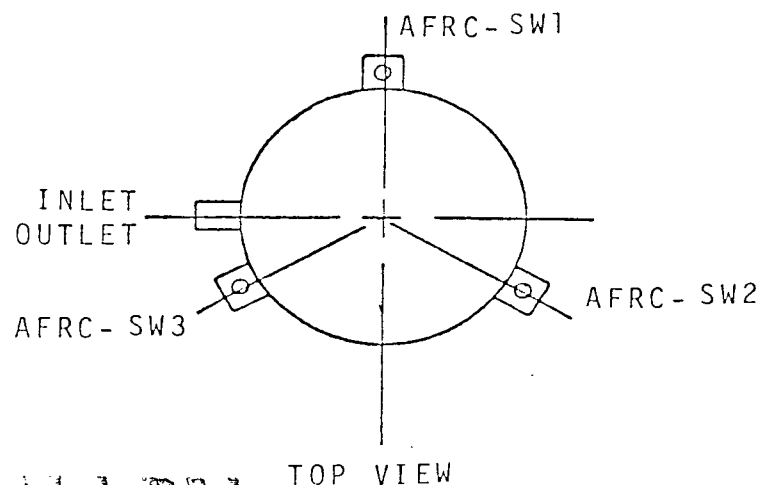
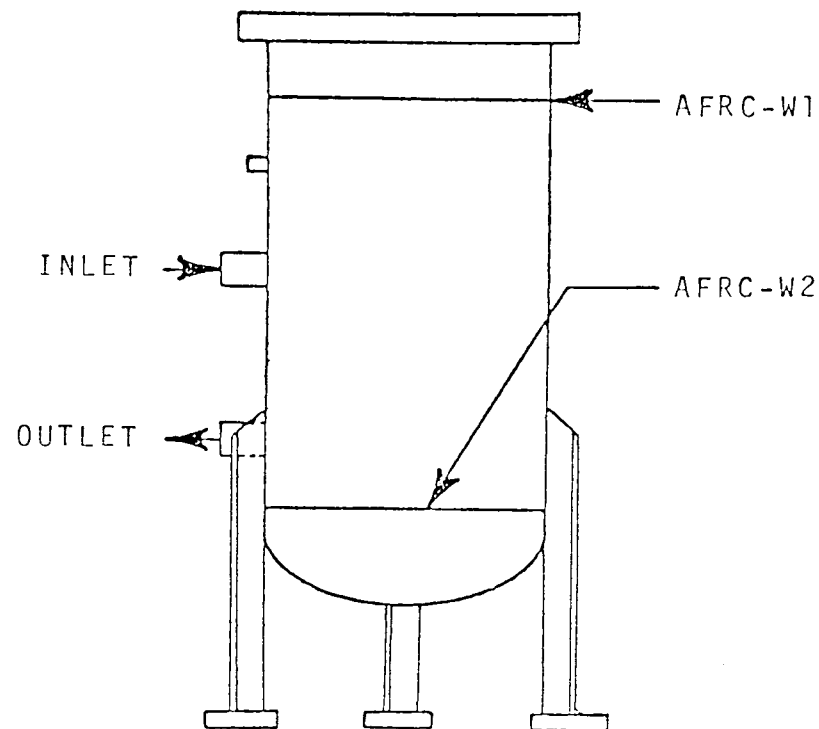
AFSI-B1 THRU AFSI-B16

AFSI-1B

AFSI-B17 THRU AFSI-B32

INSERVICE INSPECTION COMPONENT  
SEAL WATER INJECTION FILTERS-  
WELDS, BOLTING AND SUPPORTS

WISCONSIN PUBLIC SERVICE CORP.



TOP VIEW

PRELIMINARY  
COPY

0 REFERENCE: CENTERLINE OF OUTLET  
NOZZLE

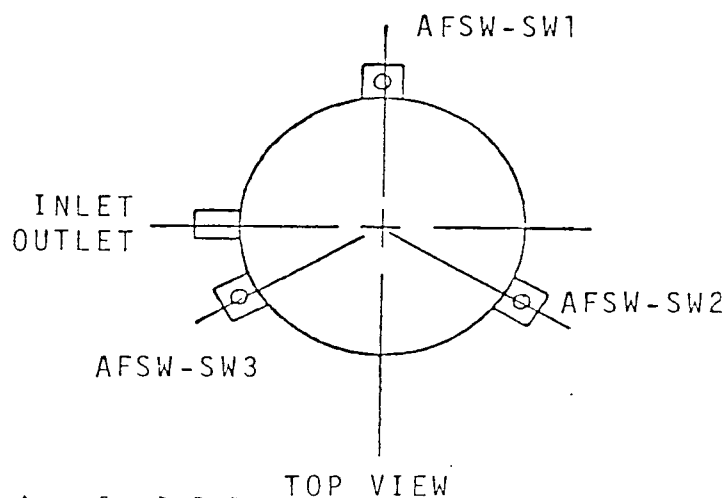
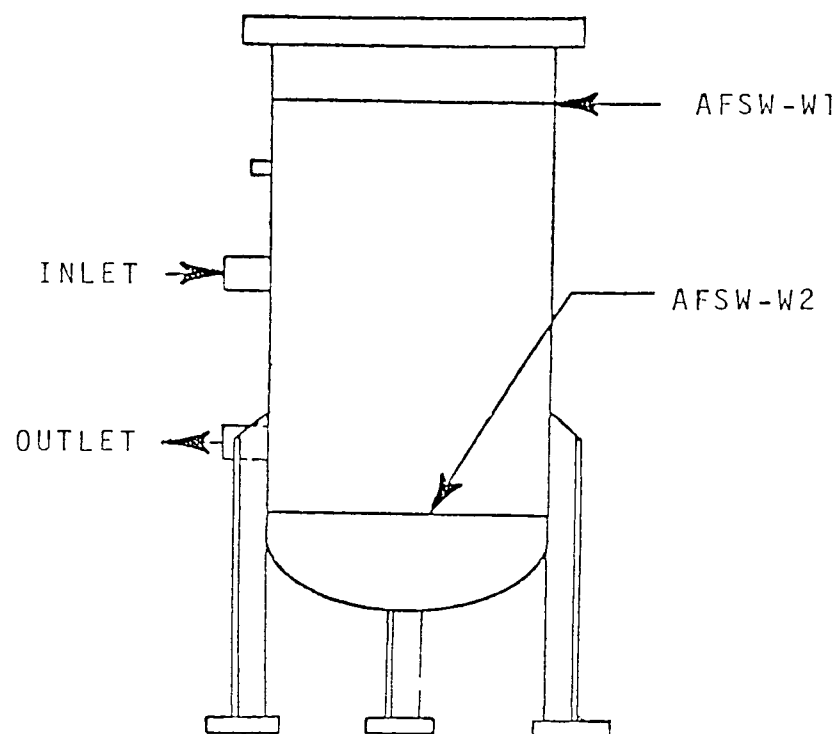
INSERVICE INSPECTION COMPONENT  
REACTOR COOLANT FILTER -  
WELDS AND SUPPORTS

WISCONSIN PUBLIC SERVICE CORP.

CLASS II - ILLUSTRATION

1-14-83

DWG.NO. 237127A-M-1213



PRELIMINARY  
COPY

0 REFERENCE: CENTERLINE OF OUTLET  
NOZZLE

CLASS II - ILLUSTRATION

1-14-83

INSERVICE INSPECTION COMPONENT

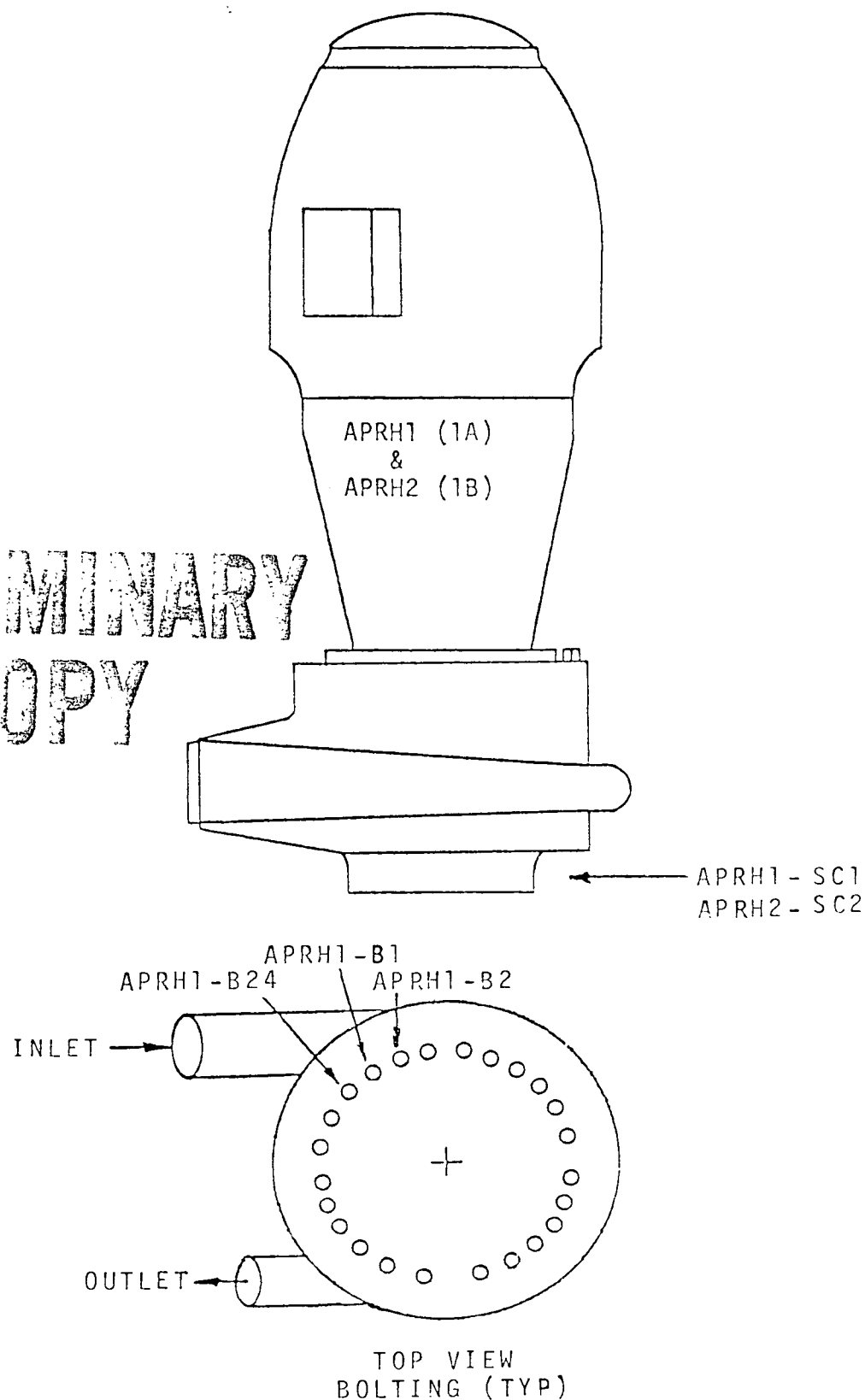
SEAL WATER RETURN FILTER -  
WELDS AND SUPPORTS

WISCONSIN PUBLIC SERVICE CORP.

DWG.NO. 237127A- M-1214



PRELIMINARY  
COPY

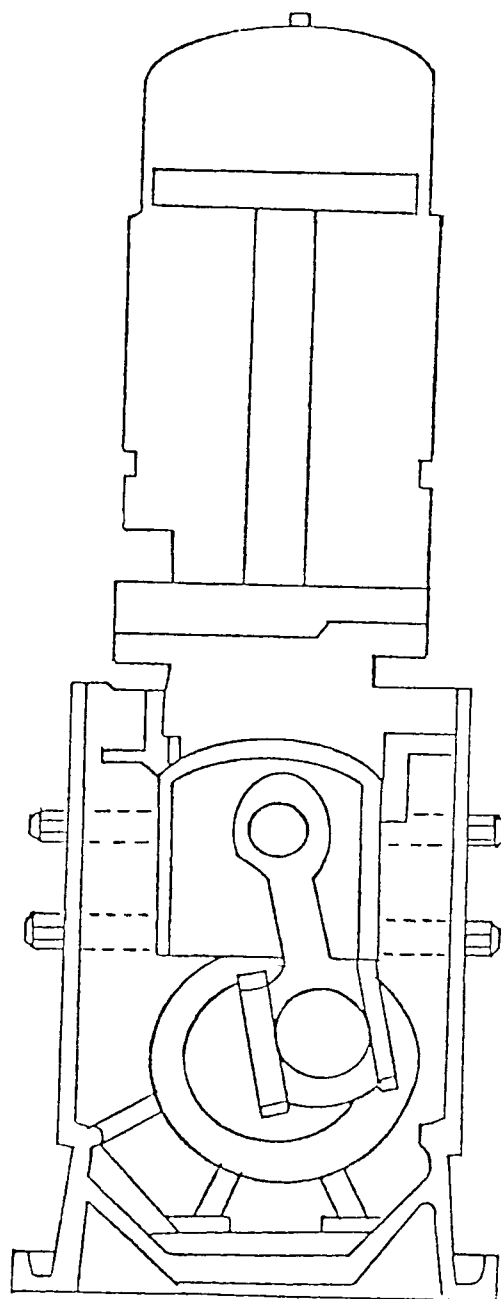


BOLTING

APRH1-B1 THRU APRH1-B24  
APRH2-B25 THRU APRH2-B48

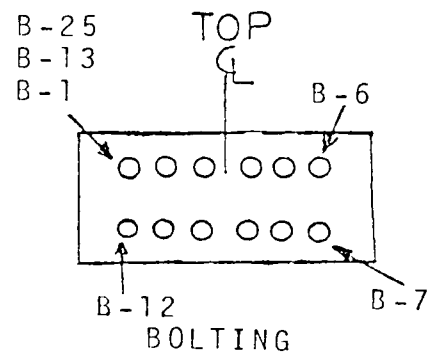
INSERVICE INSPECTION COMPONENT  
RESIDUAL HEAT REMOVAL PUMPS -  
BOLTING AND SUPPORTS

WISCONSIN PUBLIC SERVICE CORP.



(TYPICAL)

HOLD



PRELIMINARY  
COPY

SC-1, SC-2, SC-3

BOLTING

APCH-1A

APCH-B1 THRU APCH-B12

APCH-1B

APCH-B13 THRU APCH-B24

APCH-1C

APCH-B25 THRU APCH-B36

CLASS II - ILLUSTRATION

SUPPORTS

APCH-1A

APCH-SC1

APCH-1B

APCH-SC2

APCH-1C

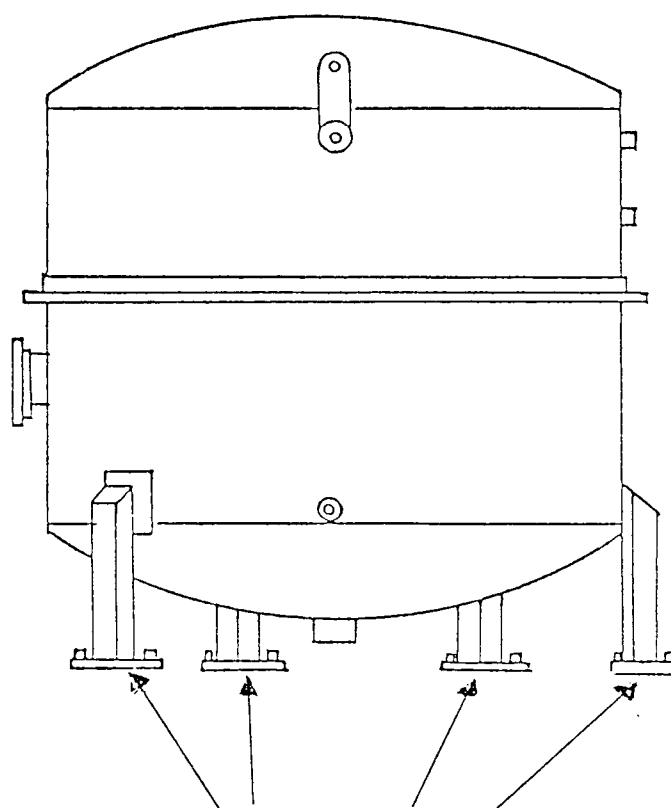
APCH-SC3

INSERVICE INSPECTION COMPONENT  
CHARGING PUMPS -  
SUPPORTS & BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A-M-1216

1-14-83



UNIT IDENTIFIERS

ATBA-1A  
ATBA-1B

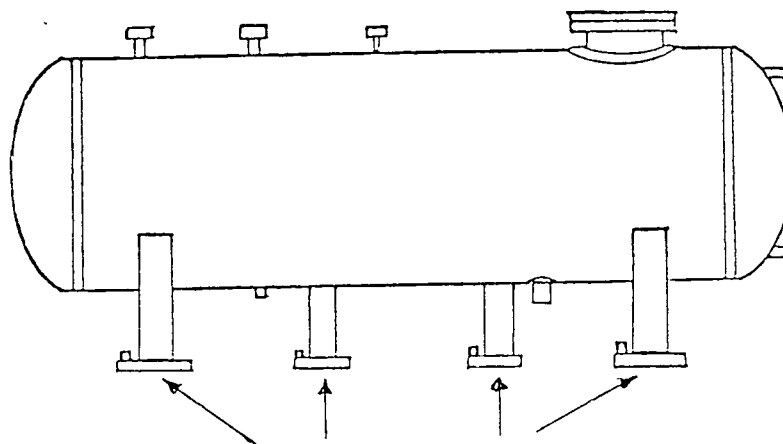
SUPPORTS  
(TYPICAL)

PRELIMINARY  
COPY

INSERVICE INSPECTION COMPONENT  
BORIC ACID TANKS -  
SUPPORTS AND BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1217



SUPPORT AND BOLTING

UNIT IDENTIFIER

ATCS

PRELIMINARY  
COPY

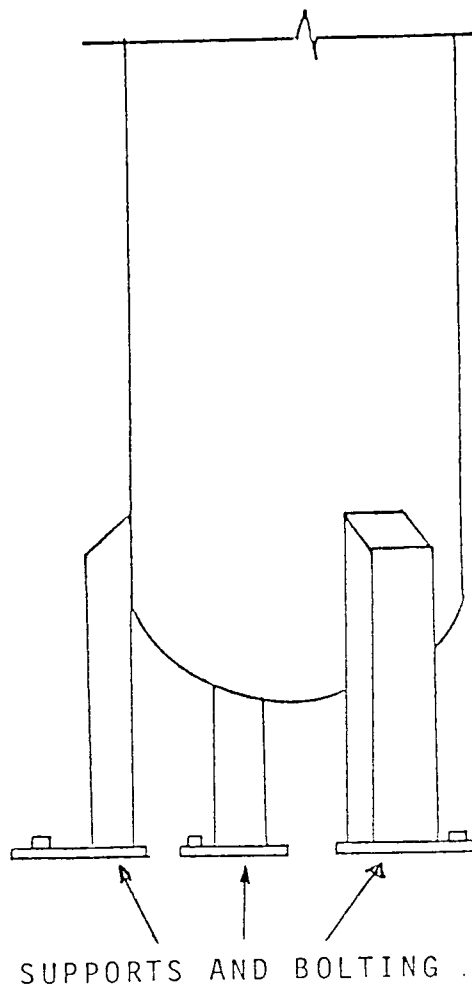
CLASS III - ILLUSTRATION

1-14-83

INSERVICE INSPECTION COMPONENT  
COMPONENT COOLING SURGE TANK-  
SUPPORTS AND BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1218



UNIT IDENTIFIER

AFBA

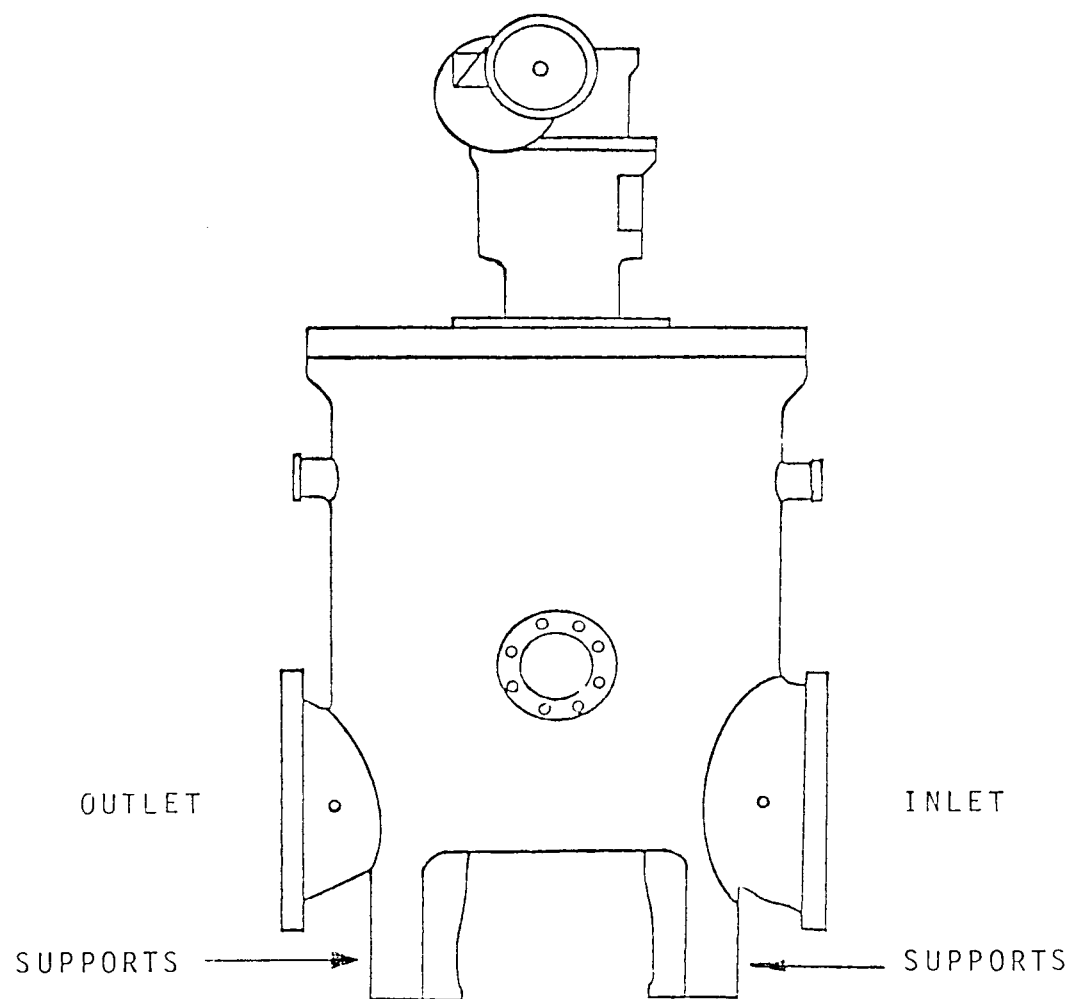
PRELIMINARY  
COPY

CLASS III - ILLUSTRATION 1-14-83

INSERVICE INSPECTION COMPONENT  
BORIC ACID FILTER -  
SUPPORTS & BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1219



(TYPICAL)

UNIT IDENTIFIERS

ASSW-1A1  
ASSW-1A2  
ASSW-1B1  
ASSW-1B2

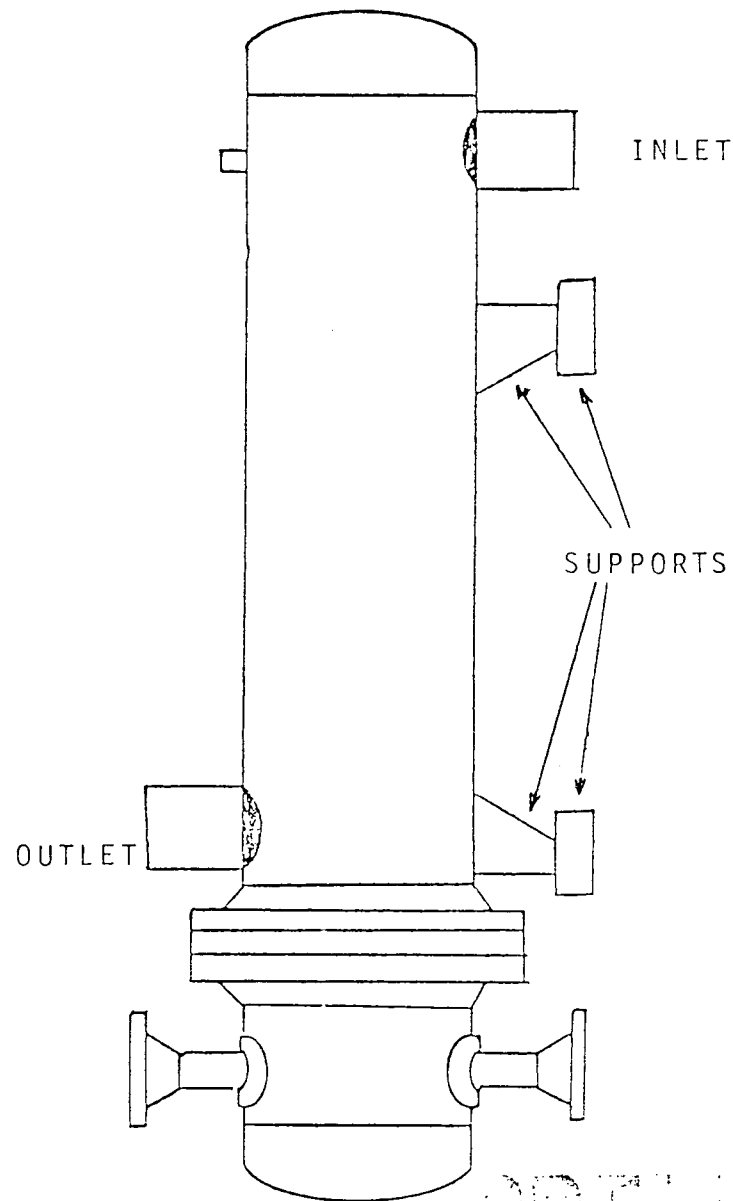
PRELIMINARY  
COPY

INSERVICE INSPECTION COMPONENT  
SERVICE WATER STRAINERS -  
SUPPORTS

WISCONSIN PUBLIC SERVICE CORP.

CLASS III - ILLUSTRATION 1-14-83

DWG. NO. 237127A- M-1220



(TYPICAL)

PRELIMINARY  
COPY

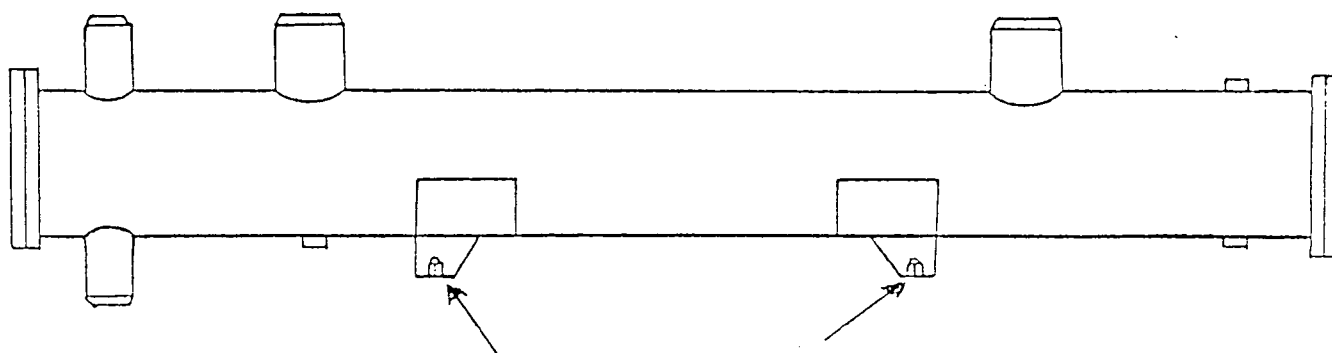
UNIT IDENTIFIERS

AHEL-1A  
AHEL-1B

INSERVICE INSPECTION COMPONENT  
EXCESS LETDOWN HEAT EXCHANGERS  
SUPPORTS

WISCONSIN PUBLIC SERVICE CORP.

DWG.NO. 237127A- M-1221



SUPPORTS & BOLTING

(TYPICAL)

UNIT IDENTIFIERS

AHCC1-1A  
AHCC2-1B

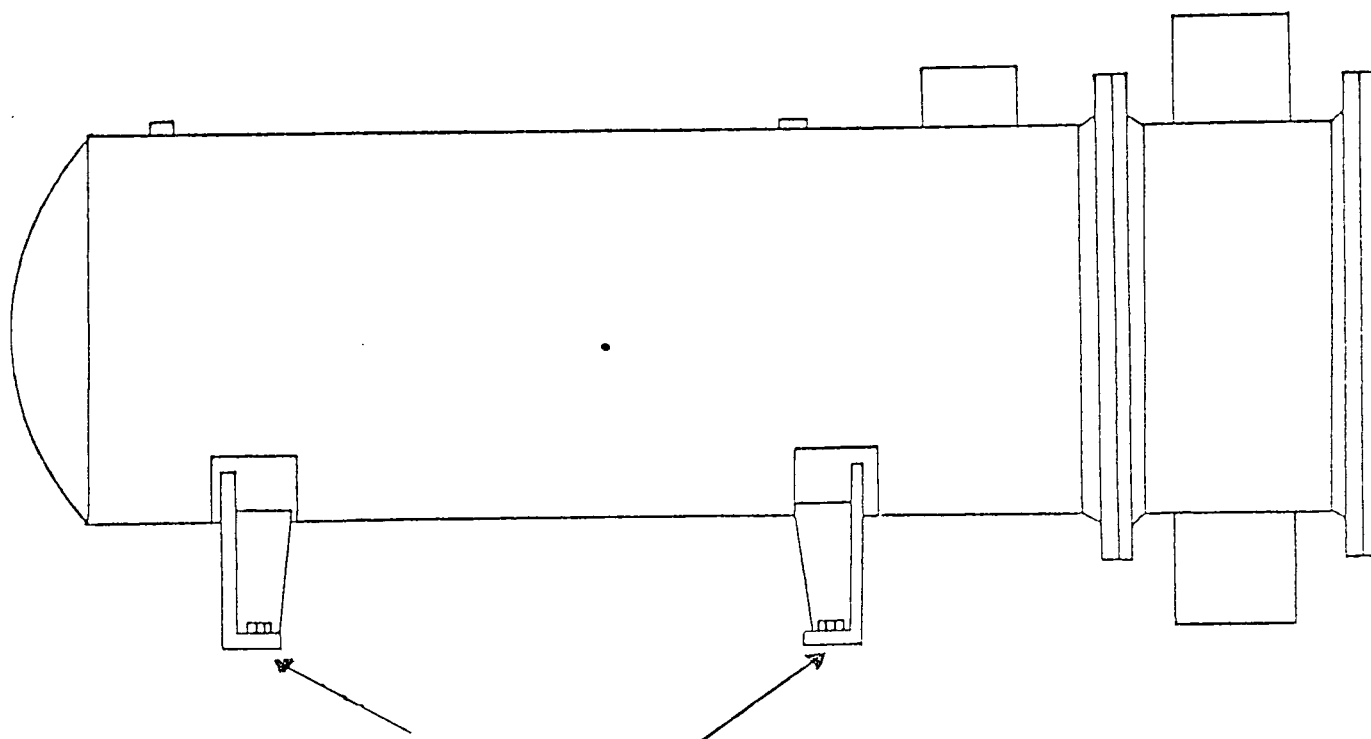
PRELIMINARY  
COPY

INSERVICE INSPECTION COMPONENT  
COMPONENT COOLING HEAT  
EXCHANGERS-SUPPORT & BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1222





SUPPORTS & BOLTING

UNIT IDENTIFIER

AHSF

PRELIMINARY  
COPY

INSERVICE INSPECTION COMPONENT  
SPENT FUEL POOL HEAT EXCHANGER  
SUPPORTS & BOLTING

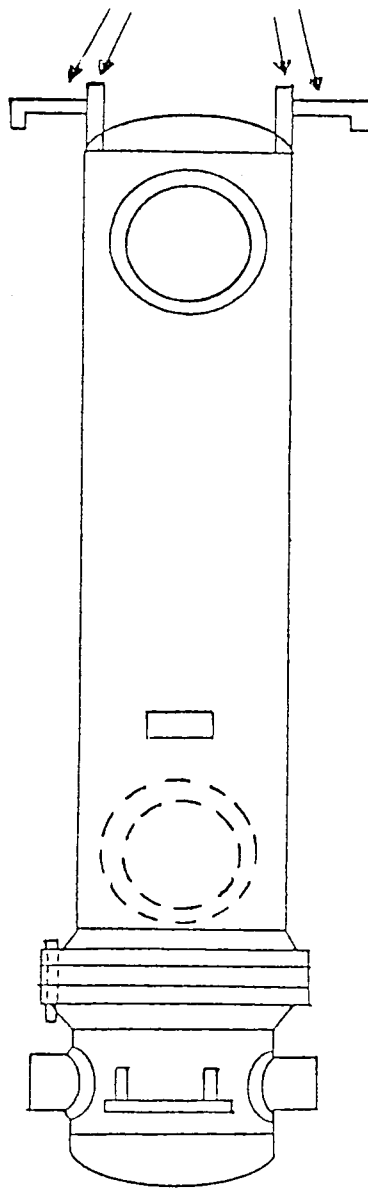
WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1223

CLASS III - ILLUSTRATION

1-14-83

SUPPORTS & BOLTING



(TYPICAL)

UNIT IDENTIFIERS

AHRS1-1A  
AHRS2-1B

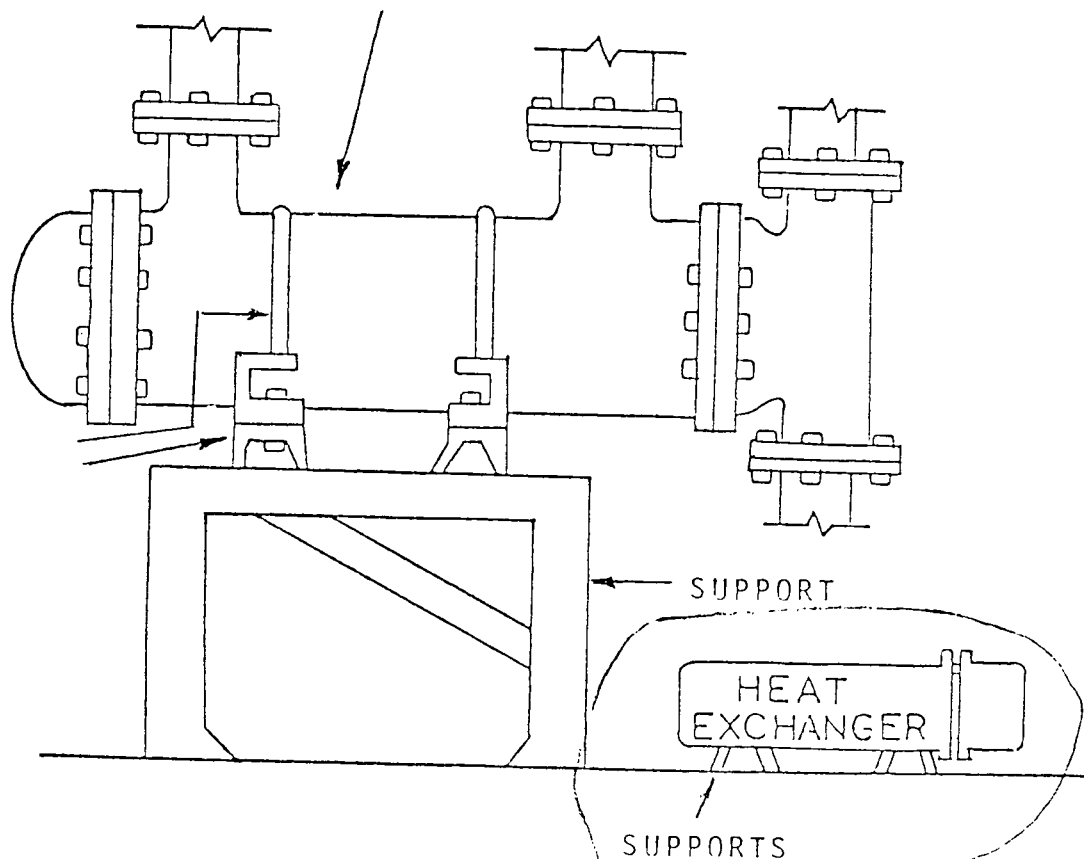
PRELIMINARY  
COPY

INSERVICE INSPECTION COMPONENT  
RESIDUAL HEAT EXCHANGERS -  
SUPPORTS & BOLTING

WISCONSIN PUBLIC SERVICE CORP.

2 HEAT EXCHANGERS PER UNIT

SUPPORTS  
&  
BOLTING



(TYPICAL)

UNIT IDENTIFIERS

AHDG-1A  
AHDG-1B

PRELIMINARY  
COPY

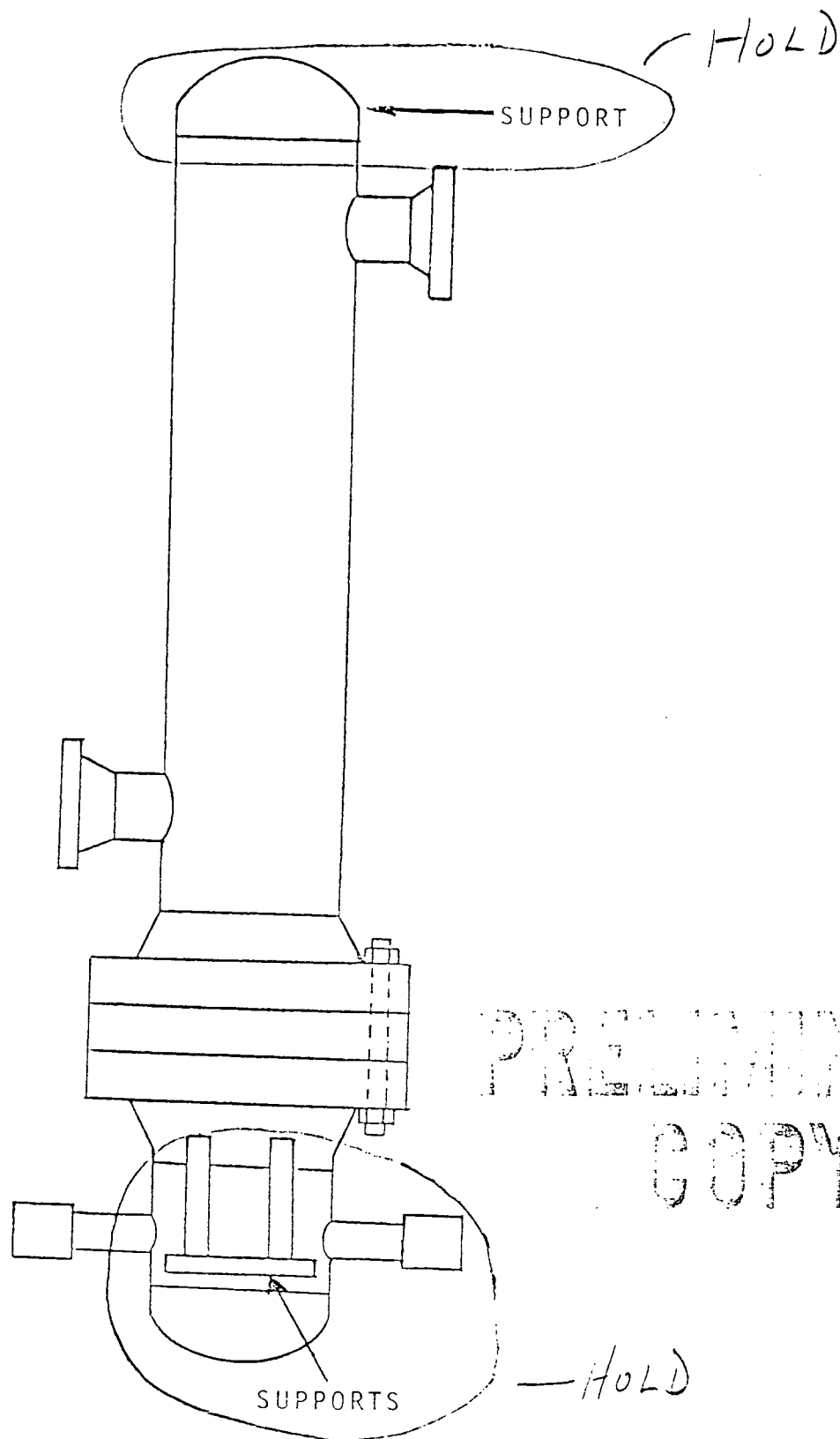
INSERVICE INSPECTION COMPONENT  
DIESEL GENERATOR HEAT EXCHRS.-  
SUPPORTS & BOLTING

WISCONSIN PUBLIC SERVICE CORP.

CLASS III - ILLUSTRATION

1-14-83

DWG. NO. 237127A- M-1225



UNIT IDENTIFIER

AHLD

INSERVICE INSPECTION COMPONENT  
LETDOWN HEAT EXCHANGER -  
SUPPORTS

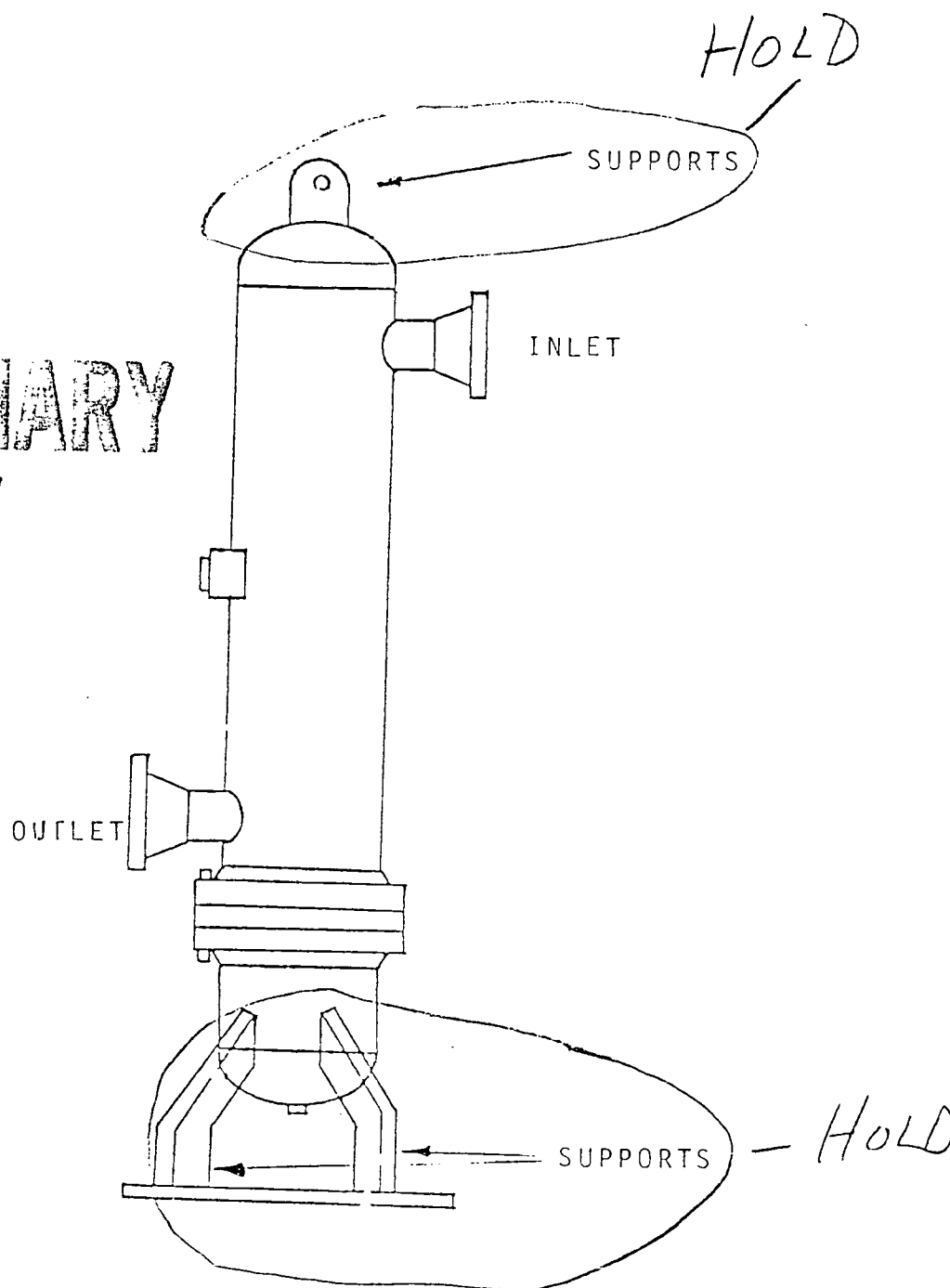
WISCONSIN PUBLIC SERVICE CORP.

CLASS III - ILLUSTRATION

I-14-83

DWG. NO. 237127A- M-1226

PRELIMINARY  
COPY



UNIT IDENTIFIER

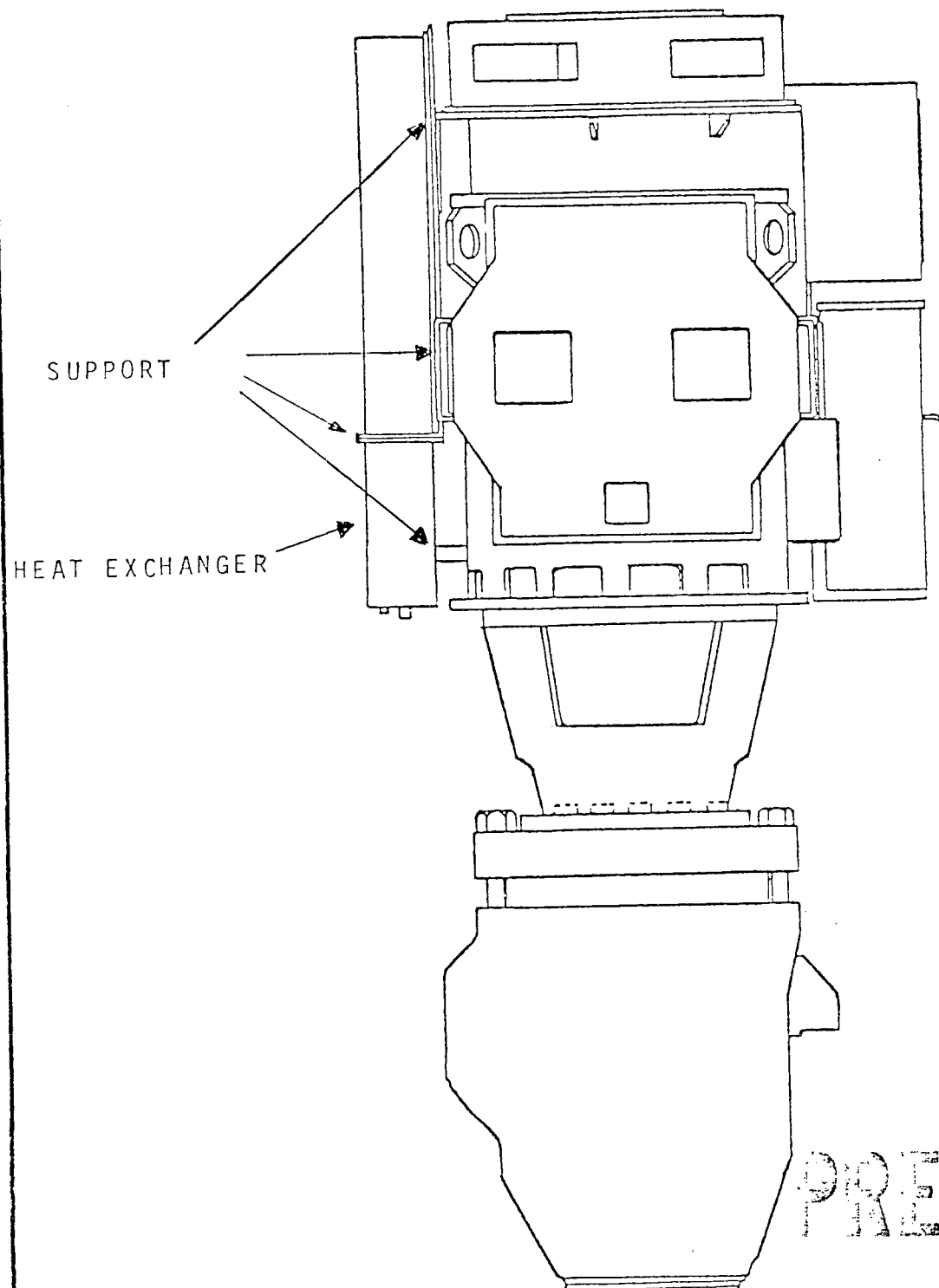
AHSW

INSERVICE INSPECTION COMPONENT  
SEAL WATER HEAT EXCHANGER -  
SUPPORTS

WISCONSIN PUBLIC SERVICE CORP.

CLASS III - ILLUSTRATION 1-14-83

DWG.NO. 237127A- M-1227



(TYPICAL)

UNIT IDENTIFIERS

RCPC-1A  
RCPC-1B

INSERVICE INSPECTION COMPONENT  
REACTOR COOLANT PUMP OIL  
COOLER - SUPPORTS

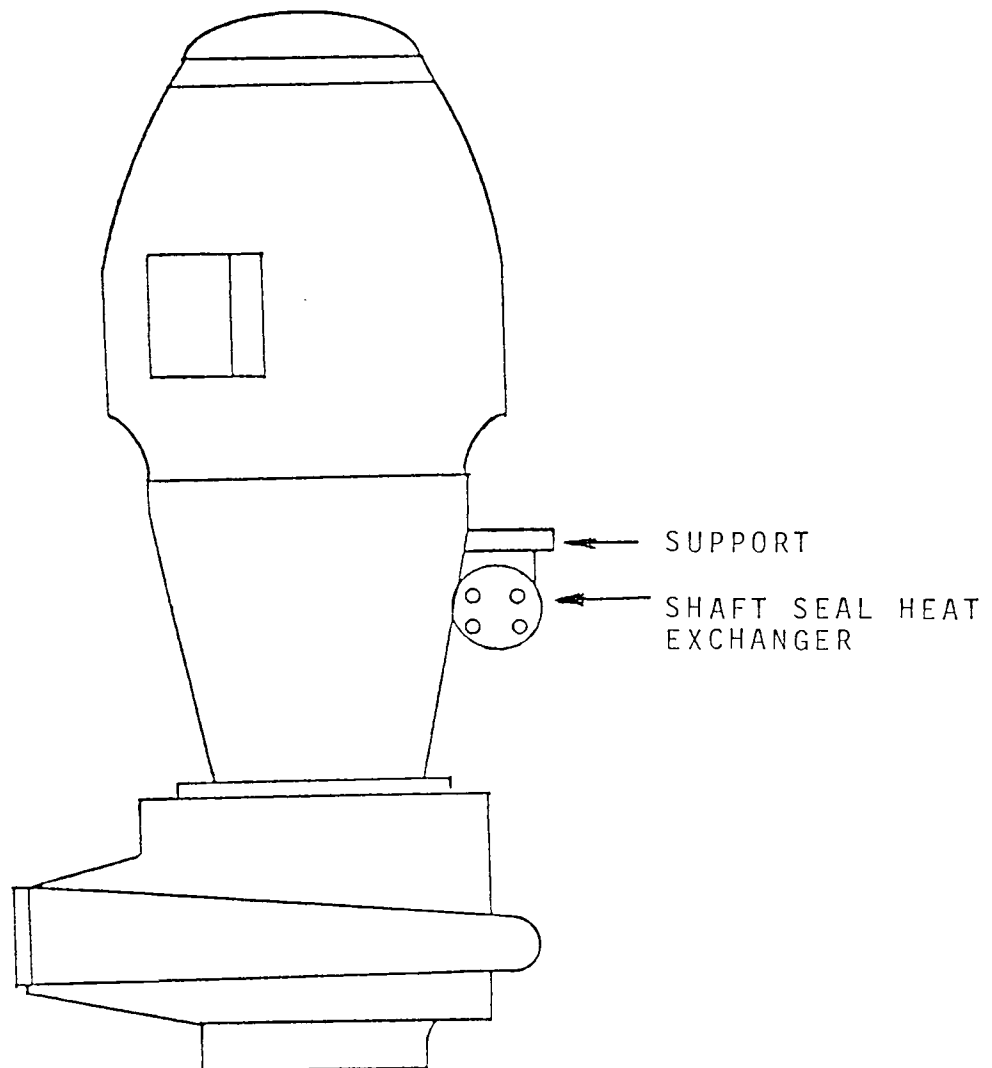
WISCONSIN PUBLIC SERVICE CORP.

CLASS III - ILLUSTRATION

1-14-83

DWG. NO. 237127A- M-1228

PRELIMINARY  
COPY



(TYPICAL)

UNIT IDENTIFIERS

APRH1-1A  
APRH2-1B

PRELIMINARY  
COPY

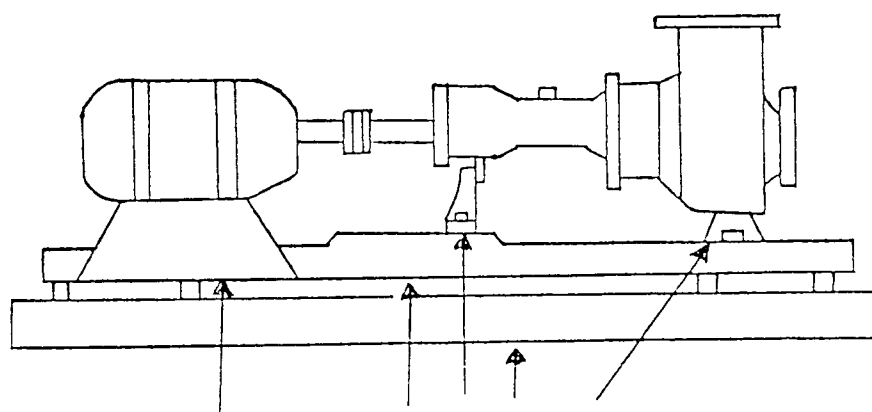
CLASS III - ILLUSTRATION

1-14-83

INSERVICE INSPECTION COMPONENT  
RESIDUAL HEAT REMOVAL PUMP -  
SHAFT SEAL HT. EXCH.-SUPPORT

WISCONSIN PUBLIC SERVICE CORP.

DWG.NO. 237127A- M-1229



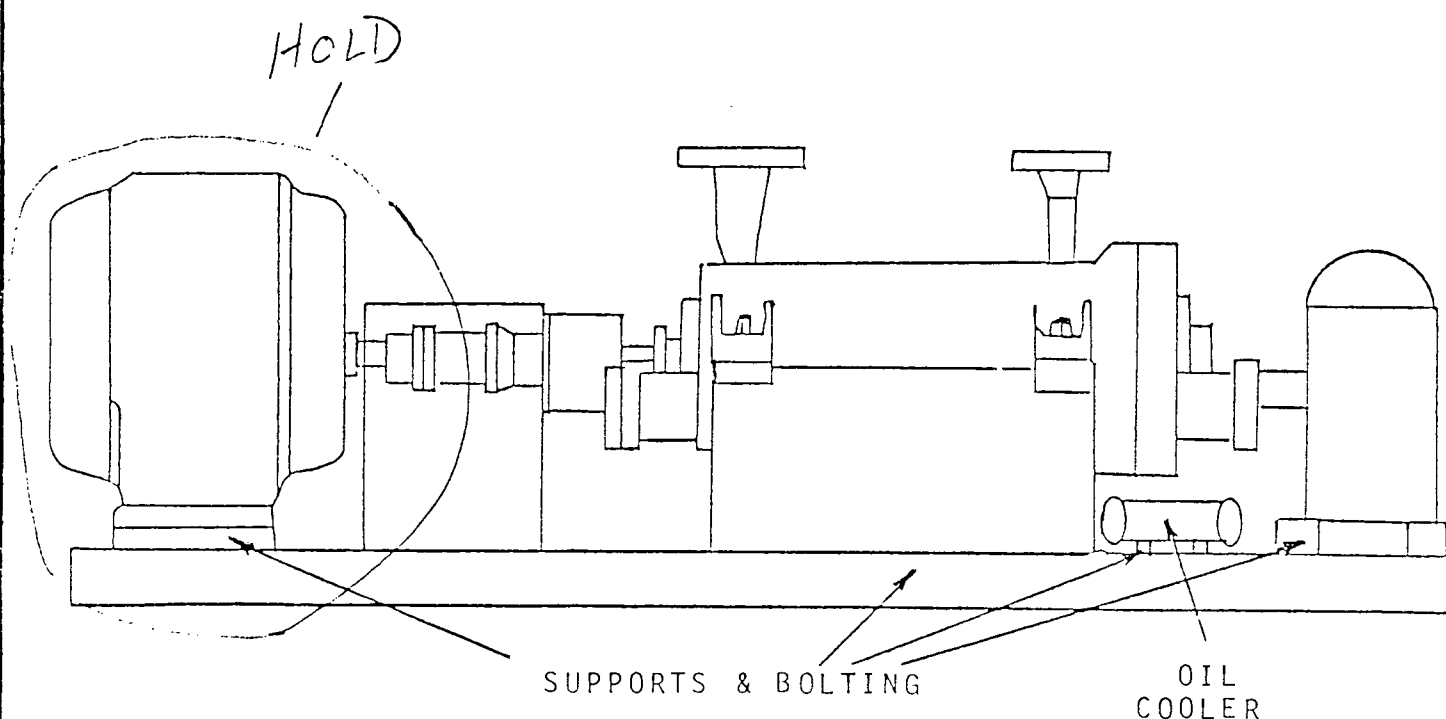
SUPPORTS & BOLTING  
(TYPICAL)

UNIT IDENTIFIERS

APSF-1A  
APSF-1B

PRELIMINARY  
COPY





UNIT IDENTIFIER

APFT

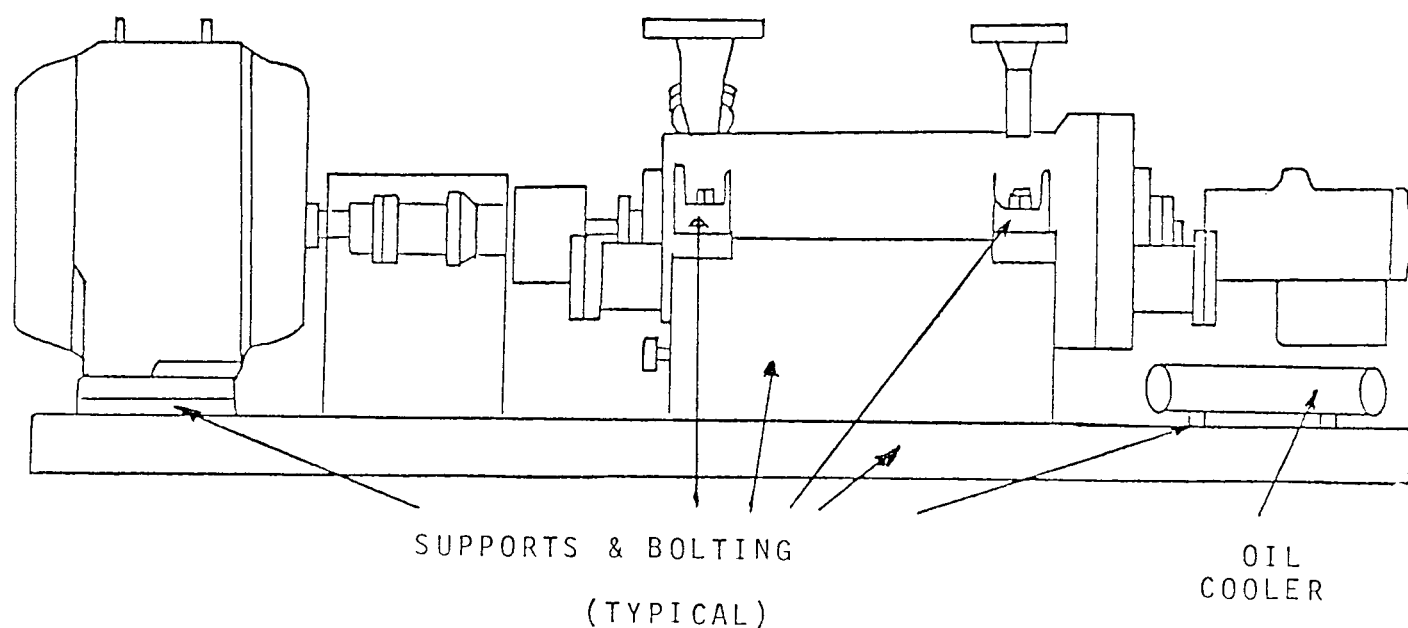
PRELIMINARY  
COPY

INSERVICE INSPECTION COMPONENT  
AUX. FEEDWATER PUMP-TURBINE  
DRIVEN - SUPPORTS & BOLTING

WISCONSIN PUBLIC SERVICE CORP.

CLASS III - ILLUSTRATION 1-14-83

DWG. NO. 237127A-M-1231



UNIT IDENTIFIERS

APFM-1A  
APFM-1B

PRELIMINARY  
COPY

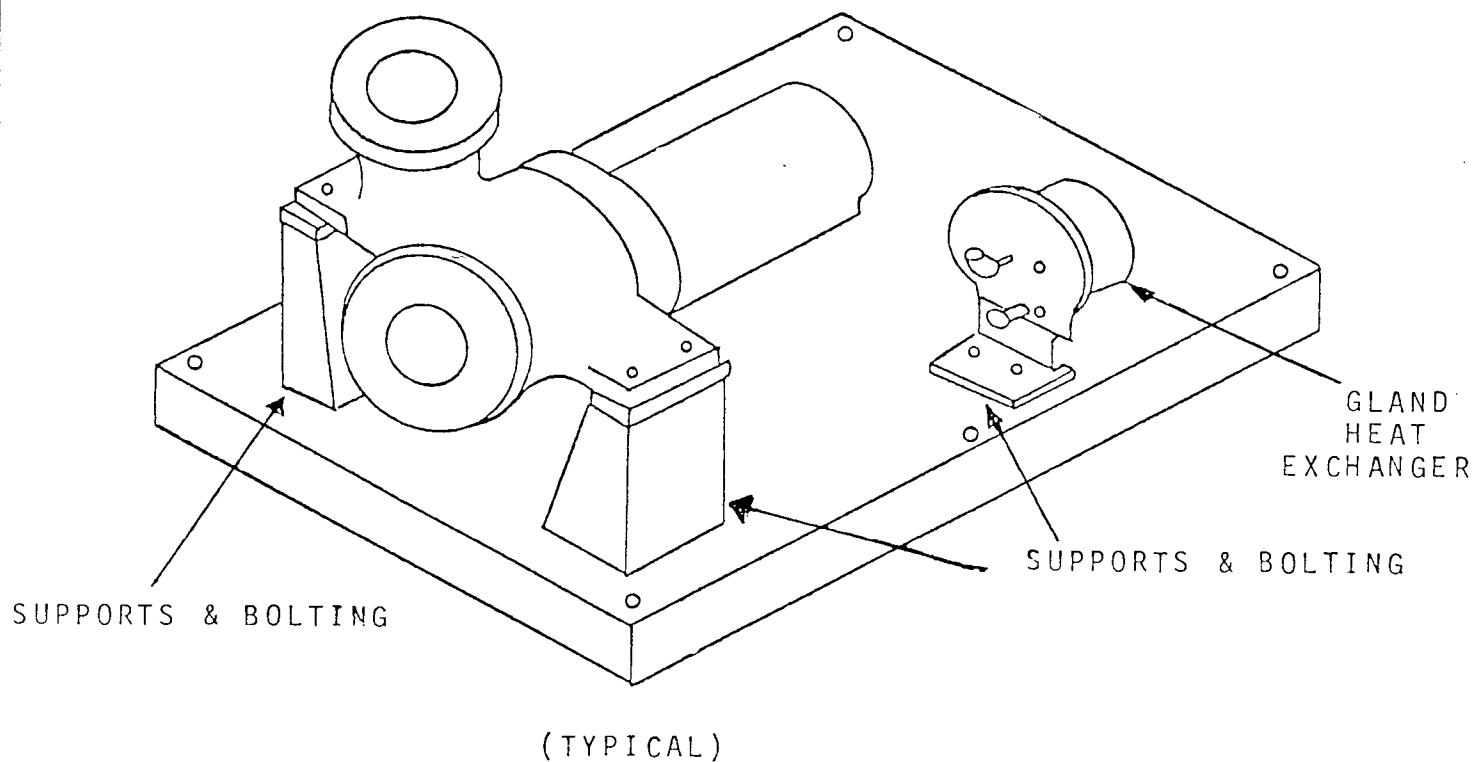
CLASS- III - ILLUSTRATION 1-14-83

INSERVICE INSPECTION COMPONENT

AUX. FEEDWATER PUMP-MOTOR  
DRIVEN-SUPPORTS & BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG.NO. 237127A- M-1232



UNIT IDENTIFIERS

APCS-1A  
APCS-1B

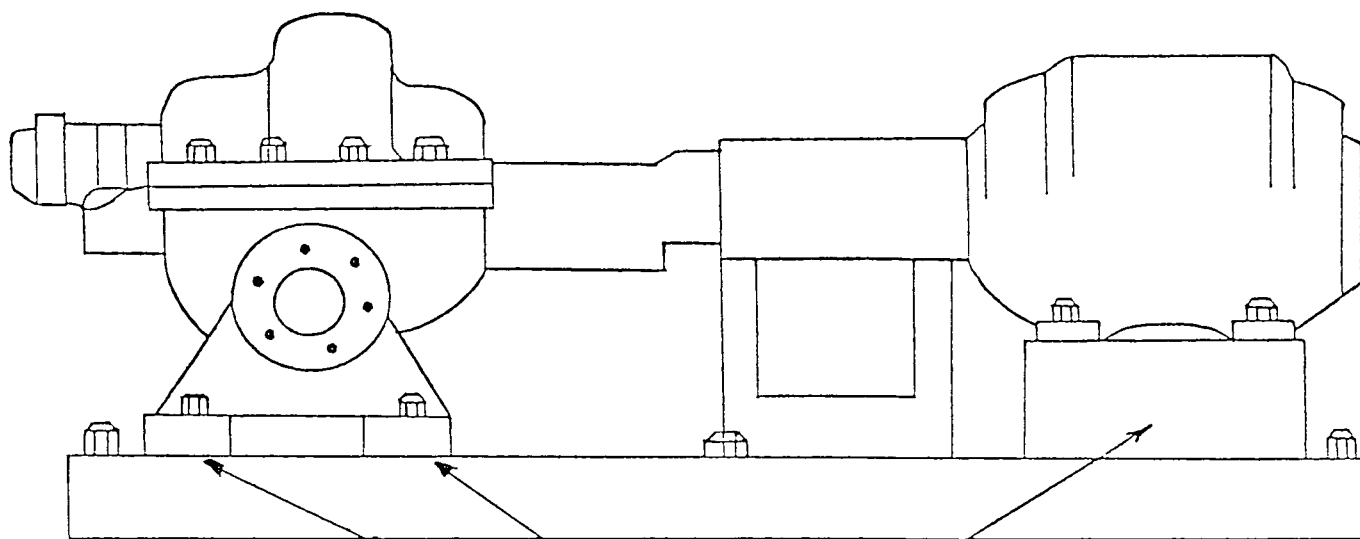
PRELIMINARY  
COPY

CLASS III - ILLUSTRATION 1-14-83

INSERVICE INSPECTION COMPONENT  
CONTAINMENT SPRAY PUMP & HEAT  
EXCHANGERS-SUPPORTS & BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG.NO. 237127A- M-1233



SUPPORTS & BOLTING  
(TYPICAL)

UNIT IDENTIFIERS

APCC-1A  
APCC-1B

PRELIMINARY  
COPY

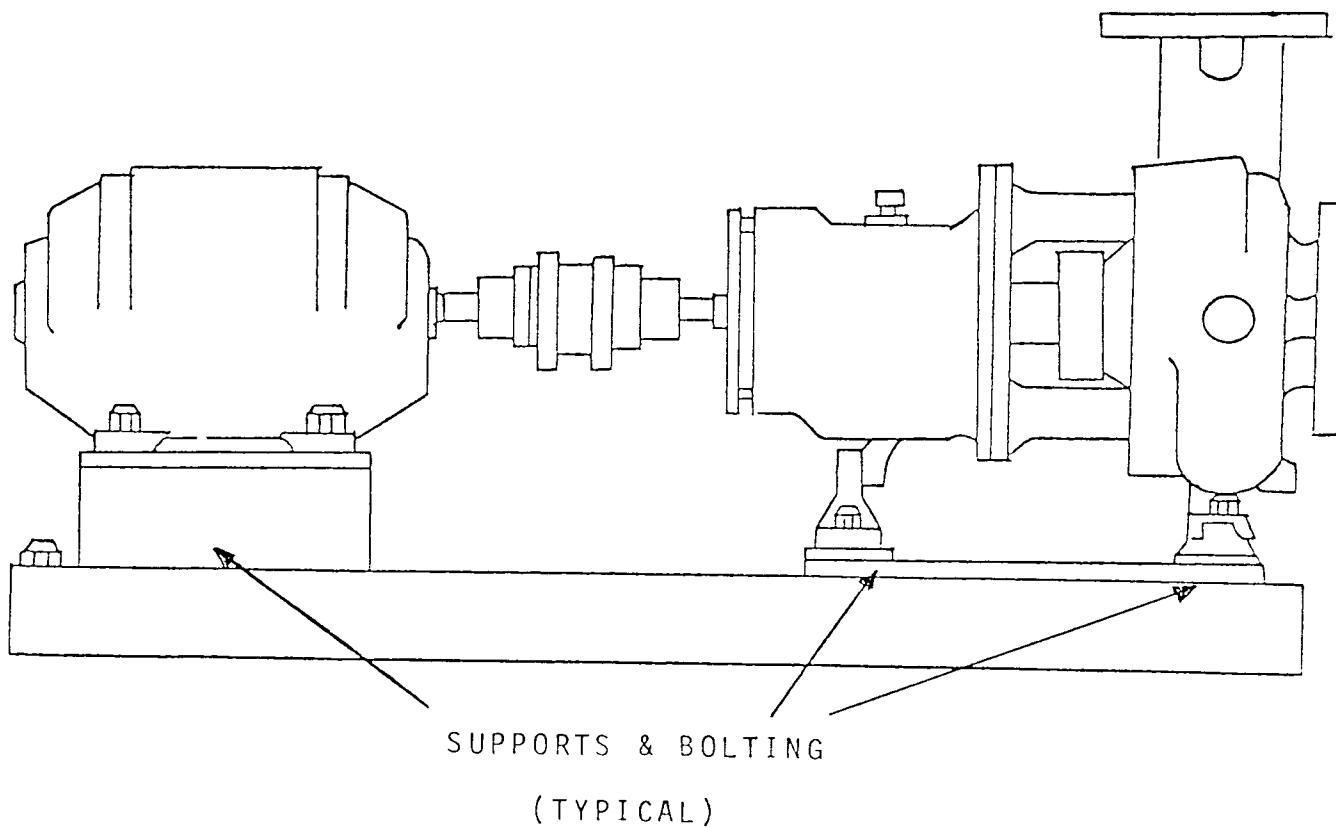
CLASS III - ILLUSTRATION

1-14-83

INSERVICE INSPECTION COMPONENT  
COMPONENT COOLING PUMPS -  
SUPPORTS & BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1234



UNIT IDENTIFIERS

APBT-1A  
APBT-1B

PRELIMINARY  
COPY

CLASS III - ILLUSTRATION

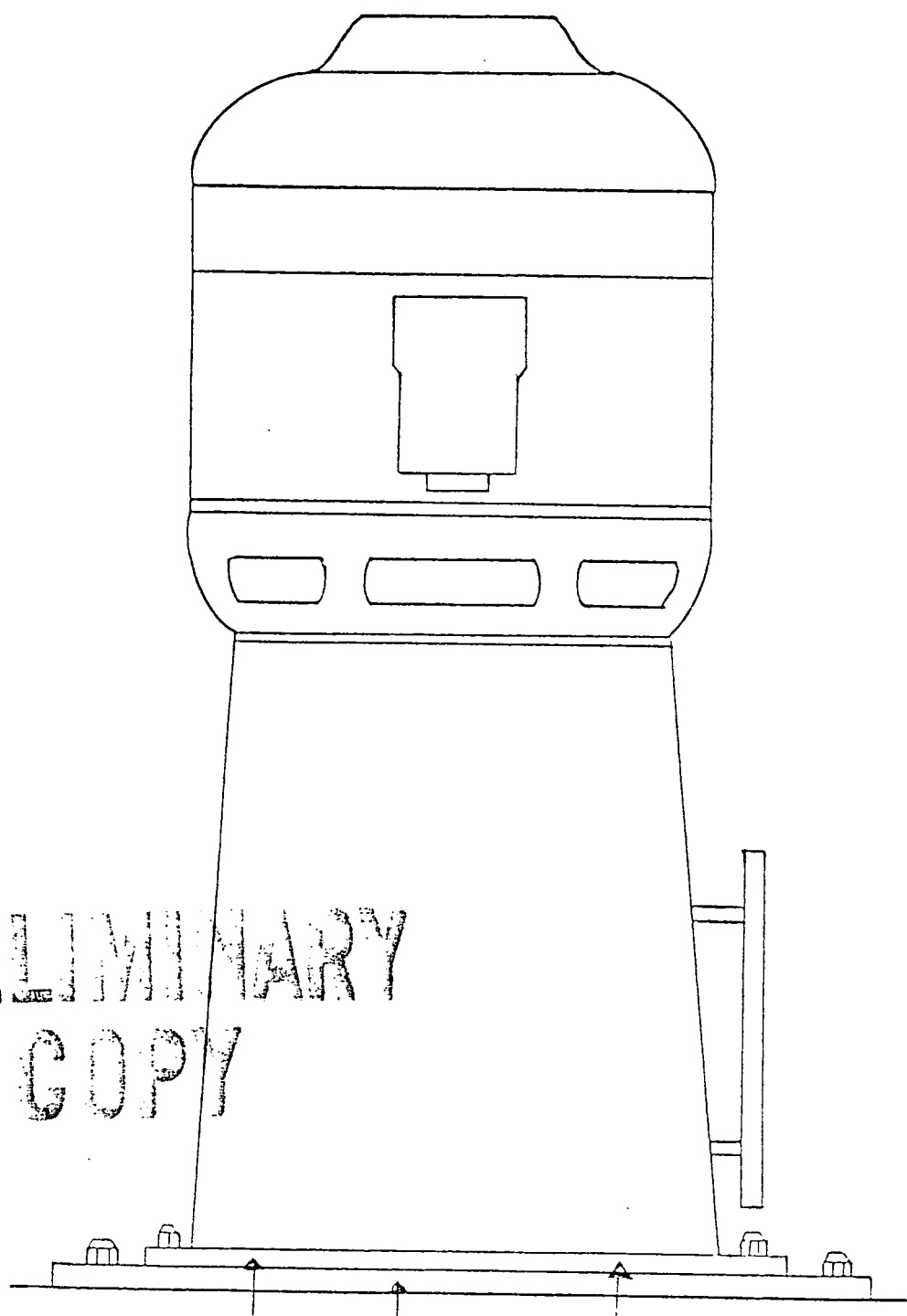
1-14-83

INSERVICE INSPECTION COMPONENT  
BORIC ACID TRANSFER PUMP -  
SUPPORTS & BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1235

PRELIMINARY  
COPY



SUPPORTS & BOLTING

(TYPICAL)

UNIT IDENTIFIERS

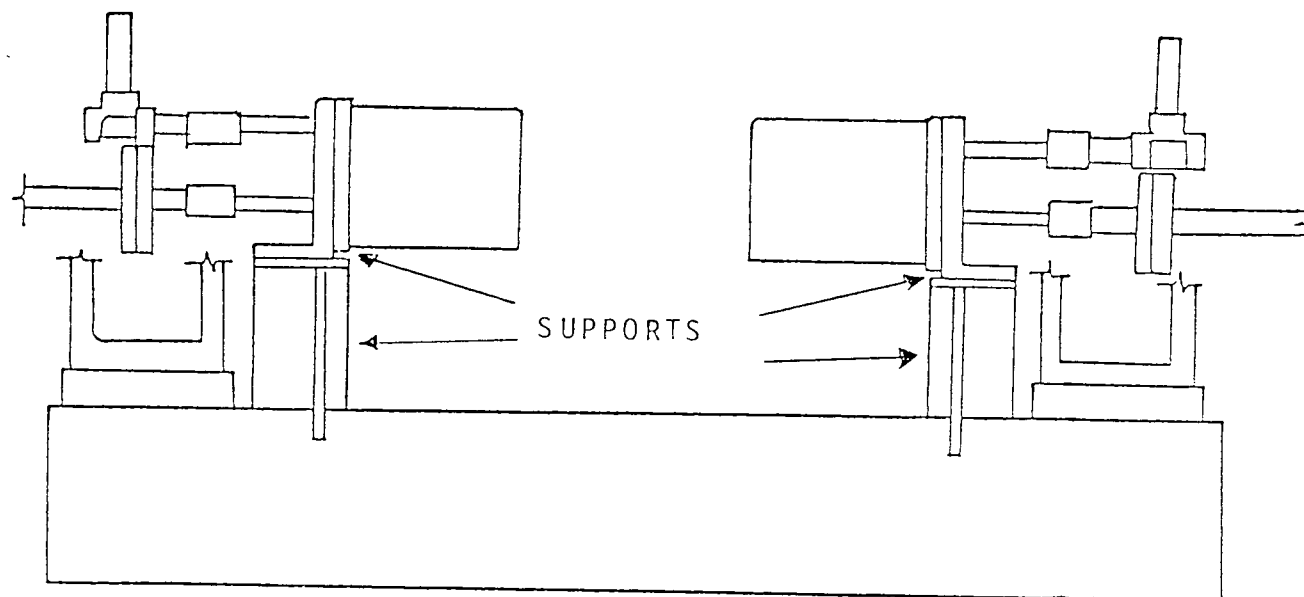
APSW-1A1  
APSW-1A2  
APSW-1B1  
APSW-1B2

INSERVICE INSPECTION COMPONENT  
SERVICE WATER PUMPS -  
SUPPORTS & BOLTING

WISCONSIN PUBLIC SERVICE CORP.

CLASS III - ILLUSTRATION 1-14-83

DWG.NO. 237127A- M-1236



(TYPICAL)

UNIT IDENTIFIERS

AHSC-1A  
AHSC-1B

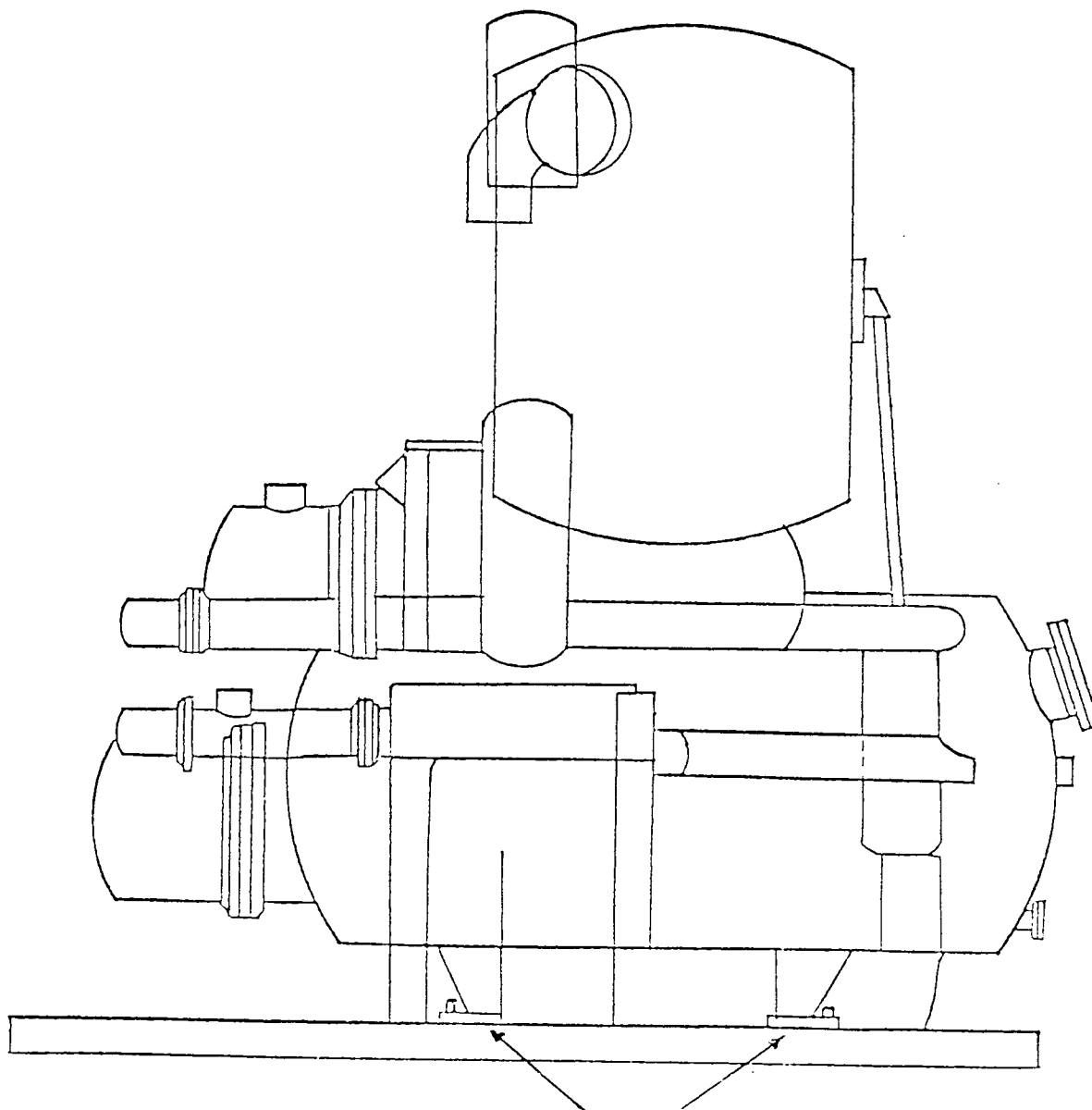
PRELIMINARY  
COPY

CLASS III - ILLUSTRATION 1-14-83

INSERVICE INSPECTION COMPONENT  
SAFETY INJECTION PUMP OIL  
COOLERS - SUPPORTS

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1237



SUPPORTS AND BOLTING

UNIT IDENTIFIER

AHBA

PRELIMINARY  
COPY

CLASS III - ILLUSTRATION

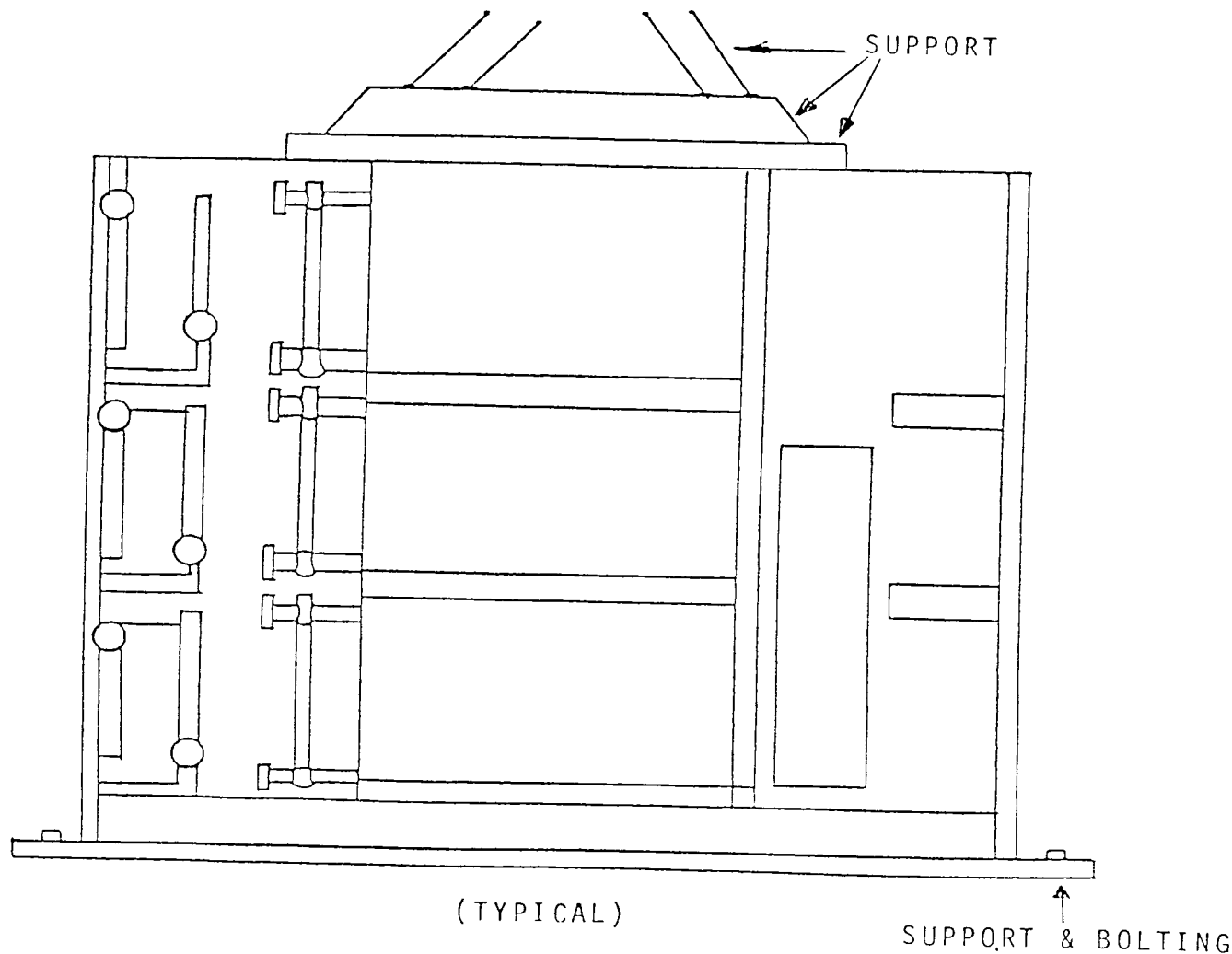
1-14-83

INSERVICE INSPECTION COMPONENT  
BORIC ACID EVAPORATOR -  
SUPPORTS AND BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A- M-1238





# UNIT IDENTIFIERS

AHCF-1A  
 AHCF-1B  
 AHCF-1C  
 AHCF-1D

PRELIMINARY  
 COPY

CLASS III - ILLUSTRATION

1-14-83

INSERVICE INSPECTION COMPONENT  
 CONTAINMENT FAN COOLERS -  
 SUPPORTS & BOLTING

WISCONSIN PUBLIC SERVICE CORP.

DWG. NO. 237127A-M-1239