

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENT**  
As Required by the Provisions of the ASME Code Section XI

1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001

Date 12/3/2001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511

Unit No. 1

Work Order 01-014720

3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016

Type Code Sym. Stamp NA

Authorization No. NA

4. Identification of System 33 Class 1 SAFETY INJECTION

Expiration Date NA

5. (a) Applicable Construction Code B16.5-1967

Code Case NA

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
SI-304A	VELAN VALVE CORPORATION	NF	NA	SI116-005	1967	REPAIRED	N

7. Description of Work OPEN FOR INSPECTION AND SEAL WELDING OF BONNET TO BODY CLASS 1 6" SAFETY INJECTION VALVE SI-304A.

8. Tests conducted      Hydrostatic ☐      Pneumatic ☐      Nominal Operating Pressure ☒      Exempt ☐  
                                 Other ☐      Pressure 2240 psi      Test Temp. 551 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

## NIS-2 (Back)

Sheet 2 of 2

Date: 12/3/2001

Name of Component: SI-304A

Work Order Number: 01-014720

### Certificate of Compliance

We Certify that the statements made in the report are correct and this REPAIRED conforms to the rules of the ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Phillip C. Bakes Insurance Inspection Program Owner Date January 4, 20 02  
Owner or Owner's Designee, Title

### Certificate of INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Wisconsin and employed by Hartford Steam Boiler Inspection and Ins. Co. of Hartford, CT have inspected the components described in the Owner's Report during the period 7-25-00 to 1-31-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Royce M. Mynar  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024  
National Board, State, Province, and Endorsements

Date February 1, 20 02

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENT

As Required by the Provisions of the ASME Code Section XI

1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001
2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511
3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016
4. Identification of System 34 Class 2 RESIDUAL HEAT REMOVAL
5. (a) Applicable Construction Code B31.1-1967  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989
6. Identification of Components Repaired or Replaced and Replacement Components
- Date 11/8/2001  
Sheet 1 of 2  
Unit No. 1  
Work Order 01-016057  
Type Code Sym. Stamp NA  
Authorization No. NA  
Expiration Date NA  
Code Case NA

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
RHR-8B	FISHER CONTINENTAL	141551	NA	AC012-002	1972	REPAIRED	N

7. Description of Work REPAIR LOOSE NUT ON CLASS 2 RESIDUAL HEAT REMOVAL SYSTEM 8" VALVE RHR-8B SHAFT COVER.

8. Tests conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure psi Test Temp. deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

## NIS-2 (Back)

Sheet 2 of 2

Date: 11/8/2001

Name of Component: RHR-8B

Work Order Number: 01-016057

### Certificate of Compliance

We Certify that the statements made in the report are correct and this REPAIRED conforms to the rules of the ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Phillip C. Baker, Inservice Inspection Program Owner Date January 4, 20 02  
Owner or Owner's Designee, Title

### Certificate of INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Wisconsin and employed by Hartford Steam Boiler Inspection and Ins. Co. of Hartford, CT have inspected the components described in the Owner's Report during the period 7-25-00 to 1-31-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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Roger Mayner  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024  
National Board, State, Province, and Endorsements

Date February 1, 20 02

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENT**  
As Required by the Provisions of the ASME Code Section XI

1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001

Date 11/9/2001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511

Unit No. 1

Work Order 01-016342

3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016

Type Code Sym. Stamp NA

Authorization No. NA

4. Identification of System 33 Class 1 SAFETY INJECTION

Expiration Date NA

5. (a) Applicable Construction Code B31.1-1967

Code Case NA

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
SI-W6S	TEXAS PIPE BENDING	NA	NA	NA	1967	REPAIRED	N

7. Description of Work REPAIR BY LIGHT FILING CLASS 1 SAFETY INJECTION SYSTEM 2" SOCKET WELD SI-W6S DUE TO LINEAR INDICATION.

8. Tests conducted      Hydrostatic ☐      Pneumatic ☐      Nominal Operating Pressure ☐      Exempt ☒  
Other ☐      Pressure      psi      Test Temp.      deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

## NIS-2 (Back)

Sheet 2 of 2

Date: 11/9/2001

Name of Component: SI-W6S

Work Order Number: 01-016342

### Certificate of Compliance

We Certify that the statements made in the report are correct and this REPAIRED conforms to the rules of the ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Phillip C. Duker, Inservice Inspection Program Owner Date January 4, 20 02  
Owner or Owner's Designee, Title

### Certificate of INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Wisconsin and employed by Hartford Steam Boiler Inspection and Ins. Co. of Hartford, CT have inspected the components described in the Owner's Report during the period 7-25-00 to 1-31-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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Roger M. Mynar  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024  
National Board, State, Province, and Endorsements

Date February 1, 20 02

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENT

As Required by the Provisions of the ASME Code Section XI

1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001
2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511
3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016
4. Identification of System 36 Class 1 REACTOR COOLANT
5. (a) Applicable Construction Code ASME III CLASS A
- (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989
6. Identification of Components Repaired or Replaced and Replacement Components

Date 12/3/2001  
Sheet 1 of 2  
Unit No. 1  
Work Order 01-016448  
Type Code Sym. Stamp NA  
Authorization No. NA  
Expiration Date NA  
Code Case NA

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
PZR	WESTINGHOUSE	1151	68-23	00041	1968	REPLACEMENT	Y

7. Description of Work REPAIR CLASS 1 REACTOR COOLANT SYSTEM PRESSURIZER MANWAY INCLUDING REPLACING 7 BOLTS.

8. Tests conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 2240 psi Test Temp. 551 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

## NIS-2 (Back)

Sheet 2 of 2

Date: 12/3/2001

Name of Component: PZR

Work Order Number: 01-016448

### Certificate of Compliance

We Certify that the statements made in the report are correct and this REPLACEMENT conforms to the rules of the ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed

Phillip C. Baker Inservice Inspection Program Owner  
Owner or Owner's Designee, Title

Date

January 4, 20 02

### Certificate of INSERVICE INSPECTION

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Logan Myers  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024

National Board, State, Province, and Endorsements

Date

February 1, 20 02



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENT**  
As Required by the Provisions of the ASME Code Section XI

1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001

Date 11/26/2001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511

Unit No. 1

Work Order 01-016564

3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016

Type Code Sym. Stamp NA

Authorization No. NA

4. Identification of System 36 Class 1 REACTOR COOLANT

Expiration Date NA

5. (a) Applicable Construction Code B31.1-1967

Code Case NA

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
RC-H9	ITT GRINNELL VALVE COMPANY	NA	NA	NA	1967	REPLACEMENT	N

7. Description of Work REPLACED CLASS 2 REACTOR COOLANT SYSTEM 6" HANGER RC-H9 TAIL ROD AND MODIFIED SUPPORT DUE TO DEFORMED SWAY STRUT.

8. Tests conducted      Hydrostatic ☐      Pneumatic ☐      Nominal Operating Pressure ☐      Exempt ☒  
                                 Other ☐      Pressure      psi      Test Temp.      deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**

Sheet 2 of 2

Date: 11/26/2001

Name of Component: RC-H9

Work Order Number: 01-016564

**Certificate of Compliance**

We Certify that the statements made in the report are correct and this REPLACEMENT conforms to the rules of the ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed

Phillip C. Butkus Inservice Inspection Program Owner  
Owner or Owner's Designee, Title

Date January 4, 20 02

**Certificate of INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Wisconsin and employed by Hartford Steam Boiler Inspection and Ins. Co. of Hartford, CT have inspected the components described in the Owner's Report during the period 7-25-00 to 1-31-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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[Signature]  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024  
National Board, State, Province, and Endorsements

Date

February 1, 20 02

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENT

As Required by the Provisions of the ASME Code Section XI

1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001
2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511
3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016
4. Identification of System 33 Class 2 SAFETY INJECTION
5. (a) Applicable Construction Code B31.1-1967
- (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989
6. Identification of Components Repaired or Replaced and Replacement Components

Date 10/29/2001  
Sheet 1 of 2  
Unit No. 1  
Work Order 01-016566  
Type Code Sym. Stamp NA  
Authorization No. NA  
Expiration Date NA  
Code Case NA

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
RSI-H80	ITT GRINNELL VALVE COMPANY	NA	NA	NA	1967	REPAIRED	N

7. Description of Work REPAIR CLASS 2 SAFETY INJECTION SYSTEM 2" HANGER RSI-H80 DUE TO LOOSE NUT ON PIPE CLAMP BOLT.

8. Tests conducted Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure psi Test Temp. deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

## NIS-2 (Back)

Sheet 2 of 2

Date: 10/29/2001

Name of Component: RSI-H80

Work Order Number: 01-016566

### Certificate of Compliance

We Certify that the statements made in the report are correct and this REPAIRED conforms to the rules of the ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed

Phillip C. Bikes Inspection Program Owner  
Owner or Owner's Designee, Title

Date January 4, 20 02

### Certificate of INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Wisconsin and employed by Hartford Steam Boiler Inspection and Ins. Co. of Hartford, CT have inspected the components described in the Owner's Report during the period 7-25-00 to 1-31-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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Logan M. Muen  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024  
National Board, State, Province, and Endorsements

Date February 1, 20 02

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENT**  
As Required by the Provisions of the ASME Code Section XI

1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001
2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511
3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016
4. Identification of System 05A Class 2 FEEDWATER
5. (a) Applicable Construction Code B31.1-1967  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989
6. Identification of Components Repaired or Replaced and Replacement Components
- Date 12/5/2001  
Sheet 1 of 2  
Unit No. 1  
Work Order 01-016713  
Type Code Sym. Stamp NA  
Authorization No. NA  
Expiration Date NA  
Code Case NA

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
FW-80B	ROCKWELL INTERNATIONAL	NF	NA	F013-002	1972	REPAIRED	N

7. Description of Work REPAIR BY GRINDING LINEAR INDICATIONS ON CLASS 2 FEEDWATER SYSTEM 1" VENT VALVE FW-80B NOZZLE I.D. INCLUDING REMOVING EXISTING 1" NOZZLE AND REPLACING WITH 1.9" DIAMETER NOZZLE.

8. Tests conducted      Hydrostatic ☐      Pneumatic ☐      Nominal Operating Pressure ☐      Exempt ☒
- Other ☐      Pressure      psi      Test Temp.      deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

## NIS-2 (Back)

Sheet 2 of 2

Date: 12/5/2001

Name of Component: FW-80B

Work Order Number: 01-016713

### Certificate of Compliance

We Certify that the statements made in the report are correct and this REPAIRED conforms to the rules of the ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Phillip C. Bikes/Inservice Inspection Program Owner Date January 4, 20 02  
Owner or Owner's Designee, Title

### Certificate of INSERVICE INSPECTION

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Ryan Morgan  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024  
National Board, State, Province, and Endorsements

Date February 1, 20 02

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENT**  
As Required by the Provisions of the ASME Code Section XI

1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001

Date 12/4/2001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511

Unit No. 1

Work Order 01-016714

3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016

Type Code Sym. Stamp NA

Authorization No. NA

4. Identification of System 05A Class 2 FEEDWATER

Expiration Date NA

5. (a) Applicable Construction Code B31.1-1967

Code Case NA

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
FW-80A	ROCKWELL INTERNATIONAL	NF	NA	F013-001	1972	REPAIRED	N

7. Description of Work REPAIR BY GRINDING LINEAR INDICATIONS ON CLASS 2 FEEDWATER SYSTEM 1" VENT VALVE NOZZLE I.D.

8. Tests conducted      Hydrostatic ☐      Pneumatic ☐      Nominal Operating Pressure ☐      Exempt ☒  
Other ☐      Pressure      psi      Test Temp.      deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

## NIS-2 (Back)

Sheet 2 of 2

Date: 12/4/2001

Name of Component: FW-80A

Work Order Number: 01-016714

### Certificate of Compliance

We Certify that the statements made in the report are correct and this REPAIRED conforms to the rules of the  
ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Phillip C. Bikes Inservice Inspection Program Owner Date January 4, 20 02  
Owner or Owner's Designee, Title

### Certificate of INSERVICE INSPECTION

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Lynn Morgan  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024  
National Board, State, Province, and Endorsements

Date February 1, 20 02



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1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001

Date 12/4/2001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511

Unit No. 1

Work Order 01-016715

3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016

Type Code Sym. Stamp NA

Authorization No. NA

4. Identification of System 05A Class 2 FEEDWATER

Expiration Date NA

5. (a) Applicable Construction Code B31.1-1967

Code Case NA

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
FW-W55BC	TEXAS PIPE BENDING	356469	NA	NA	1969	REPAIRED	N

7. Description of Work REPAIR BY GRINDING, INDICATIONS ON CLASS 2 FEEDWATER SYSTEM 8" AUXILIARY FEEDWATER NOZZLE I.D.

8. Tests conducted      Hydrostatic ☐      Pneumatic ☐      Nominal Operating Pressure ☐      Exempt ☒  
Other ☐      Pressure      psi      Test Temp.      deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

## NIS-2 (Back)

Sheet 2 of 2

Date: 12/4/2001

Name of Component: FW-W55BC

Work Order Number: 01-016715

### Certificate of Compliance

We Certify that the statements made in the report are correct and this REPAIRED conforms to the rules of the ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Phillip C. Baker Inservice Inspection Program Owner Date January 4, 20 02  
Owner or Owner's Designee, Title

### Certificate of INSERVICE INSPECTION

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Rogan Johnson  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024  
National Board, State, Province, and Endorsements

Date February 1, 20 02

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As Required by the Provisions of the ASME Code Section XI

1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001

Date 11/1/2001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511

Unit No. 1

Work Order 01-016849

3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016

Type Code Sym. Stamp NA

Authorization No. NA

4. Identification of System 36 Class 1 REACTOR COOLANT

Expiration Date NA

5. (a) Applicable Construction Code B31.1-1967

Code Case NA

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
RCVC-H48	ITT GRINNELL VALVE COMPANY	NA	NA	NA	1967	REPAIRED	N

7. Description of Work REPAIR CLASS 1 REACTOR COOLANT SYSTEM 2" HANGER RCVC-H48 DUE TO LOOSE NUT ON THE CLEVIS BOLT.

8. Tests conducted      Hydrostatic ☐      Pneumatic ☐      Nominal Operating Pressure ☐      Exempt ☒  
Other ☐      Pressure      psi      Test Temp.      deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

## NIS-2 (Back)

Sheet 2 of 2

Date: 11/1/2001

Name of Component: RCVC-H48

Work Order Number: 01-016849

### Certificate of Compliance

We Certify that the statements made in the report are correct and this REPAIRED conforms to the rules of the ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed

Phillip C. Bikes Inspection Program Owner  
Owner or Owner's Designee, Title

Date January 4, 20 02

### Certificate of INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Wisconsin and employed by Hartford Steam Boiler Inspection and Ins. Co. of Hartford, CT have inspected the components described in the Owner's Report during the period 7-25-00 to 1-31-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024  
National Board, State, Province, and Endorsements

Date February 1, 20 02

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENT**  
As Required by the Provisions of the ASME Code Section XI

1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001

Date 11/1/2001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511

Unit No. 1

Work Order 01-016849

3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016

Type Code Sym. Stamp NA

Authorization No. NA

4. Identification of System 36 Class 1 REACTOR COOLANT

Expiration Date NA

5. (a) Applicable Construction Code B31.1-1967

Code Case NA

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
RCVC-H49	ITT GRINNELL VALVE COMPANY	NA	NA	NA	1967	REPAIRED	N

7. Description of Work REPAIR CLASS 1 REACTOR COOLANT SYSTEM 2" HANGER RCVC-H49 DUE TO LOOSE NUT ON THE UPPER SPRING CAN SUPPORT.

8. Tests conducted      Hydrostatic ☐      Pneumatic ☐      Nominal Operating Pressure ☐      Exempt ☒  
Other ☐      Pressure      psi      Test Temp.      deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

## NIS-2 (Back)

Sheet 2 of 2

Date: 11/1/2001

Name of Component: RCVC-H49

Work Order Number: 01-016849

### Certificate of Compliance

We Certify that the statements made in the report are correct and this REPAIRED conforms to the rules of the ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Phillip C. Bikes Inspection Program Owner Date January 4, 20 02  
Owner or Owner's Designee, Title

### Certificate of INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Wisconsin and employed by Hartford Steam Boiler Inspection and Ins. Co. of Hartford, CT have inspected the components described in the Owner's Report during the period 7-25-00 to 1-31-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Roger M. Munn  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024  
National Board, State, Province, and Endorsements

Date February 1, 20 02

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENT**  
As Required by the Provisions of the ASME Code Section XI

1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001

Date 12/3/2001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511

Unit No. 1

Work Order 01-016851

3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016

Type Code Sym. Stamp NA

Authorization No. NA

4. Identification of System 33 Class 1 SAFETY INJECTION

Expiration Date NA

5. (a) Applicable Construction Code B16.5-1967

Code Case NA

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
SI-304B	VELAN VALVE CORPORATION	NF	NA	SI116-006	1967	REPLACEMENT	N

7. Description of Work SEAL WELD BODY TO BONNET ON CLASS 1 SAFETY INJECTION SYSTEM 6" VALVE SI-304B DUE TO BODY TO COVER LEAK INCLUDING REPLACEMENT OF 3 VALVE BONNET STUDS.

8. Tests conducted      Hydrostatic ☐      Pneumatic ☐      Nominal Operating Pressure ☒      Exempt ☐  
Other ☐      Pressure 2240 psi      Test Temp. 551 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

## NIS-2 (Back)

Sheet 2 of 2

Date: 12/3/2001

Name of Component: SI-304B

Work Order Number: 01-016851

### Certificate of Compliance

We Certify that the statements made in the report are correct and this REPLACEMENT conforms to the rules of the ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Phillip C. Burke Inservice Inspection Program Owner Date January 4, 20 02  
Owner or Owner's Designee, Title

### Certificate of INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Wisconsin and employed by Hartford Steam Boiler Inspection and Ins. Co. of Hartford, CT have inspected the components described in the Owner's Report during the period 7-25-00 to 1-31-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Roger Matyja  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024  
National Board, State, Province, and Endorsements

Date February 1, 20 02



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENT**  
As Required by the Provisions of the ASME Code Section XI

1. Owner Wisconsin Public Service Corporation  
700 North Adams P.O.Box 19001 Green Bay, WI 54307-9001

Date 11/23/2001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant  
N490 HWY 42 Kewaunee, WI 54216-9511

Unit No. 1

Work Order 01-016868

3. Work Performed By Nuclear Management Company, LLC  
700 First Street, Hudson, Wisconsin 54016

Type Code Sym. Stamp NA

Authorization No. NA

4. Identification of System 33 Class 2 SAFETY INJECTION

Expiration Date NA

5. (a) Applicable Construction Code B16.5-1967

Code Case NA

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped
SI-5A	ANCHOR VALVE COMPANY	9193-3/70	NA	SI009-001	1970	REPAIRED	N

7. Description of Work OPEN FOR REPAIR CLASS 2 SAFETY INJECTION SYSTEM 6" VALVE SI-5A TO REPLACE DAMAGED STEM.

8. Tests conducted      Hydrostatic ☐      Pneumatic ☐      Nominal Operating Pressure ☒      Exempt ☐  
Other ☐      Pressure 10 psi      Test Temp. 70 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

## NIS-2 (Back)

Sheet 2 of 2

Date: 11/23/2001

Name of Component: SI-5A

Work Order Number: 01-016868

### Certificate of Compliance

We Certify that the statements made in the report are correct and this REPAIRED conforms to the rules of the ASME Code Section XI. Repair or Replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed Phillip C. Baker / Inservice Inspection Program Owner Date January 4, 20 02  
Owner or Owner's Designee, Title

### Certificate of INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Wisconsin and employed by Hartford Steam Boiler Inspection and Ins. Co. of Hartford, CT have inspected the components described in the Owner's Report during the period 7-25-00 to 1-31-02, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Roger Morgan  
Inspector's Signature

Commissions NB7741, I, N, IS, A WIS 100024  
National Board, State, Province, and Endorsements

Date February 1, 20 02

ATTACHMENT 7

Letter from T. Coutu (NMC)

To

Document Control Desk (NRC)

Dated

February 22, 2002

Examination Summary for Scheduled and Augmented Inservice Inspection  
(ISI) Program

**NUCLEAR MANAGEMENT COMPANT, LLC  
KEWAUNEE NUCLEAR POWER PLANT  
3RD INTERVAL: 3RD PERIOD: 1ST OUTAGE  
2001  
EXAMINATION SUMMARY**

## **INTRODUCTION**

An Inservice Inspection (ISI) Program (Scheduled and Augmented) was performed at the Kewaunee Nuclear Power Plant from March 27, 2001 through September 12, 2001 (Non Refueling Outage), September 19, 2001 through December 4, 2001 (Closing of G1 following Refueling Outage) and December 6, 2001 by Kewaunee Nuclear Power Plant and Lambert, MacGill, and Thomas, Inc.(LMT) examination personnel.

Examinations were performed to satisfy the requirements of:

- ASME Boiler and Pressure Vessel Code Section XI 1989 Edition
- ASME Boiler and Pressure Vessel Code Section XI 1995 Edition 1996 Addenda Appendix VIII Performance Demonstration for Ultrasonic Examination Systems as required by Code of Federal Regulations 10CFR50.55a(g)(6)(ii)(c) and Nuclear Regulatory Commission 10CFR Part 50 Federal Register/Vol.64, Number 183/September 22, 1999/Rules and Regulations
- United States Nuclear Regulatory Commission IE Bulletin 79-13
- United States Nuclear Regulatory Commission Generic Letter 88-05

The Inservice Inspection Program Plan and Augmented Inspection Program Plan located under Tab C was prepared by Nuclear Management Company, LLC - Kewaunee Nuclear Power Plant for the 3rd Interval: 3rd Period: 1st Outage as identified in the Kewaunee Nuclear Power Plant Third 10-Year Inservice Inspection (ISI) Program 1994-2004. Examinations during this Refueling Outage were performed to start the 3rd Interval: 3rd Period Examination Requirements of ASME Boiler and Pressure Vessel Code Section XI 1989 Edition and Kewaunee Nuclear Power Plant Third 10-Year Inservice Inspection (ISI) Program 1994-2004.

The following items were examined:

- Reactor Vessel Closure Head Flange Weld
- Reactor Vessel Closure Head Studs, Nuts, Washers and Control Rod Drive Mechanisms
- Pressurizer Circumferential and Longitudinal Welds
- Steam Generator Head Circumferential Weld, Nozzle Inside Radius Sections and Nozzle To Shell Weld

- Reactor Coolant Pump Main Flange Bolting and No. 1 Seal Housing Bolting
- Seal Water Injection Filter Shell Circumferential Weld
- Letdown Heat Exchanger Head Circumferential Weld
- Charging Pump Pulsation Dampener Head Circumferential Weld
- Class 1 Valve Bodies
- Class 1 Piping Integrally Welded Attachment
- Class 1 and Class 2 Piping Welds
- Class 2 Safety Injection Pump Casing Weld and Welded Attachments
- Class 2 Piping Integrally Welded Attachments
- Class 1, Class 2 and Class 3 Piping and Component Supports and Hangers
- Class 1 and Class 2 Reactor Vessel Conoseal Bolting, Pressurizer Manway Bolting, Flange Bolting and Valve Bonnet Bolting
- Class 1 System Leakage Test
- Class 2 and Class 3 System Inservice and Functional System Pressure Tests

## **EXAMINATIONS**

The examinations performed were in accordance with an approved Inservice Inspection Program Plan located under Tab C of the final report. Examination Procedures were approved prior to the start of examinations and certification documents relative to personnel, equipment and materials were reviewed and determined to be satisfactory.

Some of the arrangements and details of the Kewaunee Nuclear Power Plant Components and Piping Systems were designed and fabricated before ASME Boiler and Pressure Vessel Code Section XI Code requirements were established. Examinations performed were intended to examine 100% of the required surface or volume. In some cases, examinations were limited by geometric, metallurgical or design/access restrictions. In each case, the occurrence and cause of the limitation was documented. In all cases the maximum amount achievable was examined.

Witnessing and surveillance of the examinations were conducted by: Hartford Steam Boiler Inspection and Insurance Company.

## **RESULTS**

Examinations resulted with the following Recordable Indications being noted on the basis of procedure recording criteria, which are generally more restrictive than specified ASME Boiler and Pressure Vessel Code Section XI Acceptance Standards.

Recordable Indications detected during the 2001 Refueling Outage are listed in Table 1 with a brief summary following. Specific data relative to all Recordable Indications and their dispositions by either corrective measures or acceptance by ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Acceptance Criteria, Repair/Replacement or Evaluation are located in Tab F of the Final Report.

**TABLE 1**

<b><u>TYPE OR LOCATION OF RECORDABLE INDICATION (RI)</u></b>	<b><u>METHOD</u></b>	<b><u>NO. OF RI'S</u></b>
• Reactor Vessel Closure Head Flange Weld	Surface (MT)	1 Weld
• Steam Generator Circumferential Head Weld	Volumetric (UT)	1 Weld
• Seal Water Injection Filter Shell Weld	Volumetric (UT)	1 Weld
• Piping Integrally Welded Attachment	Surface (PT)	1 Weld
• Piping Circumferential Butt Weld	Surface (PT)	1 Weld
• Piping Socket Weld	Surface (PT)	1 Weld
• Reactor Vessel Conoseal Bolting	Visual (VT-3)	1 Conoseal
• RC Pump No. 1 Seal Housing Bolting	Visual (VT-1)	1 Pump
• Pressurizer Manway Bolting	Visual (VT-3)	1 Manway
• Component Supports and Hangers	Visual (VT-3)	31 Supports
• Valve Bonnet Bolting	Visual (VT-1)	1 Valve
• Valve Bonnet Bolting	Visual (VT-3)	6 Valves
• System Pressure Tests	Visual (VT-2)	51 Items

1. A 0.125" Long Linear Indication was recorded on the Reactor Vessel Closure Head Flange Weld RV-W12 during performance of Magnetic Particle Examination. This Linear Indication was Acceptable per ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Table IWB-3510-3.
2. A spot indication on Steam Generator 1B Circumferential Head Weld SG-W9 was recorded during performance of Ultrasonic Examination. This Ultrasonic Spot Indication was Acceptable per ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Table IWC-3510-1.

3. 5 Laminar Indications combined into 4 laminar indications to due proximity of Indications were recorded on Seal Water Injection Filter 1A Circumferential Shell Weld AFSI-W1 during performance of Ultrasonic Examinations. These Laminar Indications were Acceptable per ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Table IWC-3510-2 and were typical of Laminations recorded on Seal Water Injection Filters 1A and 1B during Refueling Outages 1982, 1986, 1988, 1992 and 1998.
4. 3 rounded Indications 0.0625", 0.125" and 0.1875" in diameter were recorded on 2" Piping Integrally Welded Attachment RSI-H72 during performance of Liquid Penetrant Examinations. These 3 Rounded Indications were Acceptable per ASME Boiler and Pressure Vessel Code Section III 1989 Edition Section NC-5352(b).
5. A 0.125" long Linear Indication and a 0.125" Rounded Indication were recorded on 6" Circumferential Butt Weld ICS-W43 during performance of Liquid Penetrant Examinations. The 0.125" Long Linear Indication was Acceptable per ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Table IWB-3514-2. The 0.125" Rounded Indication was Acceptable per ASME Boiler and Pressure Vessel Code Section III 1989 Edition Section NC-5352.
6. A 0.55" long Linear Indication on 2" Socket Weld SI-W6S was recorded during performance of Liquid Penetrant Examinations. This Linear Indication was Unacceptable per ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Table IWB-3514-2. The Linear Indication was removed under Work Order 01-016342 by light filing with a jewelers file, reexamined and Accepted with No Indications.
7. Visual (VT-1, VT-2 and VT-3) Indications recorded on Reactor Vessel Conoseal Bolting, Reactor Coolant Pump No. 1 Seal Housing Bolting, Pressurizer Manway Bolting, Valve Bonnet Bolting, Piping Supports and Hangers and during System Pressure Tests were: (1) Evaluated and Accepted or (2) Repaired, Reexamined and Accepted by: Nuclear Management Company, LLC - Maintenance, Quality Control, Engineering and Technical Support or Inservice Inspection Personnel and reviewed by the Authorized Nuclear Inservice Inspector.

An Inservice Inspection Program Plan was performed at the Kewaunee Nuclear Power Plant from March 27, 2001 through September 12, 2001 (Non Refueling Outage) and September 19, 2001 through December 4, 2001 (Closing of G1 following Refueling Outage) and December 6, 2001. Examinations were performed as scheduled in the Kewaunee Nuclear Power Plant Third 10-Year Inservice Inspection (ISI) Program 1994-2004 to start examinations for the 3rd Interval; 3rd Period. A total of 98 Recordable Indications were detected. All Recordable Indications were corrected or accepted by ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Acceptance Criteria, Repair/Replacement or Evaluation.

Phillip E. Bukes Date  
Engineering and Technical Support  
Inservice Inspection Program Owner



## ATTACHMENT 8

Letter from T. Coutu (NMC)

To

Document Control Desk (NRC)

Dated

February 22, 2002

Examination Summary for Inservice Inspection (ISI) Class MC Program

**NUCLEAR MANAGEMENT COMPANY, LLC  
KEWAUNEE NUCLEAR POWER PLANT  
1ST INTERVAL: 2ND PERIOD: 1ST OUTAGE  
2001  
EXAMINATION SUMMARY**

## **INTRODUCTION**

An Inservice Inspection (ISI) Program for the Class MC Reactor Building Containment Vessel was performed at the Kewaunee Nuclear Power Plant from September 18, 2001 through December 4, 2001 (Closing of G1 following Refueling Outage) by Kewaunee Nuclear Power Plant and Lambert, MacGill and Thomas Inc. examination personnel.

Examinations were performed to satisfy the requirements of:

- ASME Boiler and Pressure Vessel Code Section XI 1992 Edition up to and including 1992 Addenda

The Inservice Inspection Program Plan located under Tab C was prepared by Nuclear Management Company, LLC - Kewaunee Nuclear Power Plant for the 1st Interval: 2nd Period: 1st Outage as identified in the Kewaunee Nuclear Power Plant First 10-Year Inservice Inspection (ISI) Program 1996-2006.

The following items were examined for the Class MC Reactor Building Containment Vessel:

- Accessible Surface Areas
- Longitudinal Welds and Circumferential Welds
- Sleeve to Bellows Welds
- Flange Welds
- Seals and Gaskets
- Moisture Barriers
- Dissimilar Metal Welds
- Bolted Connections
- Containment Penetration Bellows
- Airlocks

## **EXAMINATIONS**

The examinations performed were in accordance with an approved Inservice Inspection Program Plan located under Tab C of the final report. Examination Procedures were approved

prior to the start of examinations and certification documents relative to personnel, equipment and materials were reviewed and determined to be satisfactory.

Some of the arrangements and details of the Kewaunee Nuclear Power Plant Components and Piping Systems were designed and fabricated before ASME Boiler and Pressure Vessel Code Section XI Code requirements were established. Examinations performed were intended to examine 100% of the required surface or volume. In some cases, examinations were limited by geometric, metallurgical or design/access restrictions. In each case, the occurrence and cause of the limitation was documented. In all cases the maximum amount achievable was examined.

Witnessing and surveillance of the examinations were conducted by: Hartford Steam Boiler Inspection and Insurance Company.

## **RESULTS**

Examinations resulted with the following Recordable Indications being noted on the basis of procedure recording criteria, which are generally more restrictive than specified ASME Boiler and Pressure Vessel Code Section XI Acceptance Standards.

Recordable Indications detected during the 2001 Refueling Outage are listed in Table 1 with a brief summary following. Specific data relative to all Recordable Indications and their dispositions by either corrective measures or acceptance by ASME Boiler and Pressure Vessel Code Section XI 1992 Edition up to and including 1992 Addenda Acceptance Criteria, Repair/Replacement or Evaluation are located in Tab F of the Final Report.

**TABLE 1**

<b><u>TYPE OR LOCATION OF RECORDABLE INDICATION (RI)</u></b>	<b><u>METHOD</u></b>	<b><u>NO. OF RI'S</u></b>
Reactor Building Containment Vessel	General Visual	11 Plates
Reactor Building Containment Vessel Moisture Barriers	VT-3	5 Plates
Reactor Building Containment Vessel Emergency Airlock	VT-1	1 Bolt

1. General Visual Indication consisting of a 4" x 8" Surface Defect was recorded on Plate 155. This Surface Defect was previously recorded and accepted in 1998 and showed no change in dimension or surface condition during the 2001 Refueling Outage.
2. General Visual Indication consisting of a slight inward bulge on Plates 74, 75 and 83 was recorded. The slight inward bulge was evaluated by Engineering and Accepted under Kewaunee Nuclear Power Plant Specification TS-1052, Addendum No. 4, Item No. 19 Section 10.3 - Shell Tolerance.
3. General Visual Indication consisting of slight Outward Bulges on Plates 144, 145, 146, 147 and 148 were recorded. The slight Outward Bulges were evaluated and Accepted by Engineering Analysis.
4. General Visual Indications consisting of Weld Deposits on Plate 62 and Arc Strikes on Plate 99 were recorded and are Acceptable per ASME Boiler and Pressure Vessel Code Section XI 1992 Edition 1992 Addenda.
5. VT-3 Indications consisting of Lack of Bonding and Tears were recorded in the Moisture Barriers on Plates 62, 64, 65, 66 and 67 and were repaired under Work Order 01-018045.
6. A VT-1 Indication on an Emergency Airlock Bolt was recorded and was repaired under Work Order 01-018283.

## SUMMARY

An Inservice Inspection Program for the Class MC Reactor Building Containment Vessel was performed at the Kewaunee Nuclear Power Plant from September 18, 2001 through December 4, 2001 (closing of G1 following Refueling Outage). Examinations were performed as scheduled in the Kewaunee Nuclear Power Plant First 10-Year Inservice Inspection (ISI) Program 1996-2006. A total of 17 Recordable Indications were detected. All Recordable Indications were corrected and accepted by: ASME Boiler and Pressure Vessel Code Section XI 1992 Edition up to and including 1992 Addenda Acceptance Criteria, Repair/Replacement, Evaluation or Kewaunee Nuclear Power Plant Technical Specifications.

*Phillip E. Bukes*

Phillip E. Bukes

Engineering and Technical Support

Inservice Inspection Program Owner

*December 7, 2001*

Date

ATTACHMENT 9

Letter from T. Coutu (NMC)

To

Document Control Desk (NRC)

Dated

February 22, 2002

Examination Summary for Preservice Inspection (PSI) of Steam Generators

**NUCLEAR MANAGEMENT COMPANY, LLC  
KEWAUNEE NUCLEAR POWER PLANT  
REPLACEMENT STEAM GENERATORS  
PRESERVICE INSPECTION EXAMINATION SUMMARY  
3RD INTERVAL: 3RD PERIOD: 1ST OUTAGE  
2001**

## **INTRODUCTION**

A Preservice Inspection (PSI) was performed at the Kewaunee Nuclear Power Plant on the Replacement Steam Generators 1) in the Steam Generator Storage Building from June 5, 2001 through June 26, 2001 and 2) during installation in conjunction with the 2001 Refueling Outage from September 19, 2001 through December 4, 2001 (Closing of G1 following Refueling Outage) by Kewaunee Nuclear Power Plant and Lambert, MacGill, and Thomas, Inc. (LMT) examination personnel.

Examinations were performed to satisfy the requirements of:

- ASME Boiler and Pressure Vessel Code Section XI 1989 Edition
- ASME Boiler and Pressure Vessel Code Section XI 1995 Edition 1996 Addenda Appendix VIII Performance Demonstration for Ultrasonic Examination Systems as required by Code of Federal Regulations 10CFR50.55a(g)(6)(ii)(c) and Nuclear Regulatory Commission 10CFR Part 50 Federal Register/Vol.64, Number 183/September 22, 1999/Rules and Regulations
- Kewaunee Nuclear Power Plant Nuclear Regulatory Commission Commitment Tracking No.95-046
- Kewaunee Nuclear Power Plant Augmented Program for examinations performed in conjunction with Steam Generator Replacement Activities

The Preservice Inspection Program Plan and Augmented Inspection Program Plan located under Tab C was prepared by Nuclear Management Company, LLC Kewaunee Nuclear Power Plant for the 3rd Interval: 3rd Period: 1st Outage and as identified in the Kewaunee Nuclear Power Plant Third 10-Year Inservice Inspection (ISI) Program 1994-2004.

The following items were examined:

- Replacement Steam Generators: Tubesheet to Head Welds, Nozzle Inside Radius Sections, Nozzle to Safe End Butt Welds, Primary Side Manway Bolting, Integrally Welded Attachments, Shell Circumferential Welds, Tubesheet to Shell Welds and Class 1 Support Components
- New Class 1 Reactor Coolant Piping Welds

- New and Replacement Class 2 Main Steam and Feedwater Piping Welds
- Reexamination of Existing Steam Generator Circumferential Welds SG-W2 and SG-W10 to verify previously recorded Ultrasonic Planar Indications
- Existing 16", 8" and 1" Feedwater Inside Diameter Surfaces
- Existing Steam Generator Inside Diameter Feedwater Nozzle Inner Radius and Shell Circumferential Welds
- Existing Steam Generator Class 2 Supports

## **EXAMINATIONS**

The examinations performed were in accordance with an approved Preservice Inspection Program Plan located under Tab C of the final report. Examination Procedures were approved prior to the start of examinations and certification documents relative to personnel, equipment and materials were reviewed and determined to be satisfactory.

Some of the arrangements and details of the Kewaunee Nuclear Power Plant Components and Piping Systems were designed and fabricated before ASME Boiler and Pressure Vessel Code Section XI Code requirements were established. Examinations performed were intended to examine 100% of the required surface or volume. In some cases, examinations were limited by geometric, metallurgical or design/access restrictions. In each case, the occurrence and cause of the limitation was documented. In all cases the maximum amount achievable was examined.

Witnessing and surveillance of the examinations were conducted by: Hartford Steam Boiler Inspection and Insurance Company.

Surveillance of the examinations were conducted by: United States Nuclear Regulatory Commission.

## **RESULTS**

Examinations resulted with the following Recordable Indications being noted on the basis of procedure recording criteria, which are generally more restrictive than specified ASME Boiler and Pressure Vessel Code Section XI Acceptance Standards.

Recordable Indications detected during the 2001 Refueling Outage are listed in Table 1 with a brief summary following. Specific data relative to all Recordable Indications and their dispositions by either corrective measures or acceptance by ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Acceptance Criteria, Repair/Replacement or Evaluation are located in Tab F of the Final Report.

**TABLE 1**

<b><u>TYPE OR LOCATION OF RECORDABLE INDICATION (RI)</u></b>	<b><u>METHOD</u></b>	<b><u>NO. OF RI'S</u></b>
• Replacement Steam Generator Integrally Welded Attachment SG-1B-23B	Surface (MT)	1 Weld
• Replacement Steam Generator Tubesheet To Head Weld SG-W32	Volumetric (UT)	1 Weld
• Replacement Steam Generator Primary Side Manway SG-1B-CLMWB	Visual (VT-1)	1 Stud
• Replacement Steam Generator Tubesheet To Shell Weld SG-W31	Volumetric (UT)	1 Weld
• Existing Steam Generator Feedwater Nozzle Inner Radius SG-IR8	Surface (MT)	1 Nozzle
• Existing Steam Generator Feedwater Nozzle Inner Radius SG-IR16	Surface(MT) & Visual (VT-1)	1 Nozzle
• Existing Steam Generator Circumferential Welds SG-W2 and SG-W10	Volumetric (UT)	2 Welds
• Existing 16", 8" and 1" Feedwater Piping FW-W27BC	Surface (MT)	1 ID Section
• Existing 16", 8" and 1" Feedwater Piping FW-W55BC	Surface (MT) & Visual (VT-1)	1 ID Section

1. Two separate linear indications on Replacement Steam Generator 1B Integrally Welded Attachment SG-1B-23B were recorded during performance of Magnetic Particle Examinations. These two linear indications due their close proximity to each other were classified as one Linear indication with a length of 0.21875". This linear indication was Acceptable per ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Sections IWB-3516.1, IWB-3510.3 and IWB-3510-3.
2. Ultrasonic Recordable Indications at 3 separate locations on Replacement Steam Generator 1B Tubesheet to Head Weld SG-W32 were noted during performance of Manual Ultrasonic Examinations. These 3 separate Planar Indications were Acceptable per ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Table IWB-3510-1.
3. One Visual Indication was recorded by the VT-1 method on Replacement Steam Generator 1B Primary Side Manway Stud SG-1B-CLMWB #17. Although this Primary Manway Stud was Acceptable per ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Section IWB-3517.1(b), a new VT-1 Acceptable Replacement Stud was installed.



4. Ultrasonic Recordable Indication at one location on Replacement Steam Generator 1B Tubesheet to Shell Weld SG-W31 was noted during performance of Manual Ultrasonic Examination. This Planar Indication was Acceptable per ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Table IWC-3510-1.
5. Recordable Indications on the Existing Steam Generator 1B Feedwater Nozzle Inside Radius Section SG-IR8 were recorded during Augmented Examination by Magnetic Particle. These Indications were repaired by Bechtel Corporation under Bechtel's NCR's and Kewaunee Nuclear Power Plant Work Orders as part of Replacement Steam Generator Activities.
6. Recordable Indications on the Existing Steam Generator 1A Feedwater Nozzle Inside Radius Section SG-IR16 were recorded during Augmented Examinations by Magnetic Particle and Visual (VT-1) Methods. These Indications were repaired by Bechtel Corporation under Bechtel's NCR's and Kewaunee Nuclear Power Plant Work Orders as part of Replacement Steam Generator Activities.
- 7 & 8. Prior to severing the Existing Steam Generators and following welding the Replacement Steam Generators to the Existing Steam Generators a Manual Ultrasonic Examination was performed on existing Circumferential Shell Welds SG-W2 and SG-W10 to insure that there was no growth in the previously recorded planar indications. These Indications were recorded in 1991 for SG-W2 and in 1991 and 1996 for SG-W10. All indications previously recorded as well as new indications recorded do to amplitude recording criteria change were Acceptable either by ASME Boiler and Pressure Vessel Code Section XI 1989 Acceptance Standards or by Fracture Analysis as provided in Westinghouse Electric Corporation WCAP 11476 Rev. 3 Handbook on Flaw Evaluation Kewaunee Unit 1 Steam Generator Upper Shell To Cone Weld, May 1991 and evaluation by Kewaunee Nuclear Power Plant during 1996 and 2001 Refueling Outages.
9. Recordable Indications on Loop A Existing 16", 8" and 1" Feedwater Piping ID Surface for FW-W27BC were recorded during Augmented Magnetic Particle examinations. These indications were repaired by Bechtel Corporation under Kewaunee Nuclear Power Plant Work Orders generated during Steam Generator Replacement Activities.
10. Recordable Indications on Loop B Existing 16", 8" and 1" Feedwater Piping ID Surface for FW-W55BC were recorded during Augmented Examinations by Magnetic Particle and Visual (VT-1) Methods. These indications were repaired by Bechtel Corporation under Kewaunee Nuclear Power Plant Work Orders generated during Steam Generator Replacement Activities.

## SUMMARY

A Preservice Inspection Program was performed at the Kewaunee Nuclear Power Plant from June 5, 2001 through June 26, 2001 (Non Refueling Outage) and September 19, 2001 through December 4, 2001 (Closing of G1 following Refueling Outage). Examinations were performed as scheduled in the Replacement Steam Generator Preservice Inspection Program Plan and Kewaunee Nuclear Power Plant Third 10-Year Inservice Inspection (ISI) Program 1994-2004. A total of 10 Recordable Indications were detected. All Recordable Indications were corrected or accepted by ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Acceptance Criteria, Repair/Replacement or Evaluation.

Phillip C. Bukes December 18, 2001  
Phillip E. Bukes Date  
Engineering and Technical Support  
Inservice Inspection Program Owner

ATTACHMENT 10

Letter from T. Coutu (NMC)

To

Document Control Desk (NRC)

Dated

February 22, 2002

Examination Summary for Replacement Steam Generator Eddy Current

# **KEWAUNEE NUCLEAR POWER PLANT REPLACEMENT STEAM GENERATOR PRESERVICE INSPECTION SUMMARY REPORT**

## **1.0 Introduction**

This report provides a summary of inspections performed and the inspection results for the preservice inspection (PSI) of the Kewaunee Nuclear Power Plant (KNPP) replacement steam generators (RSG).

The KNPP RSGs were delivered to the Kewaunee site in December 2000. The PSI was performed inside the RSG storage building at the Kewaunee site in January 2001. The RSGs were in a horizontal position during the examination. Personnel from Siemens performed the data acquisition and primary data analysis and Zetec personnel performed the secondary analysis.

SG2 (ASME Nameplate NB 0202) was located in the south bay of the RSG storage building and was the first steam generator examined. The PSI depicted SG2 as the "B" steam generator. SG1 (ASME Nameplate NB 0201) was located in the north bay of the RSG storage building and was the second steam generator examined. The PSI depicted SG1 as the "A" steam generator.

SG2 (ASME Nameplate NB 0202) will be installed as the "A" steam generator and SG1 (ASME Nameplate NB 0201) will be installed as the "B" steam generator.

## **2.0 RSG PSI Eddy Current Inspection Scope**

The RSG PSI eddy current examinations included the following:

1. A 100% bobbin coil examination through the entire length of all tubes (3592 tubes/SG).
2. Supplemental +Point rotating coil examinations of ambiguous signals, as required.

## **3.0 RSG PSI Inspection Results**

No tubes contained indications in excess of the 50% plugging limit as defined in KNPP Technical Specification 4.2.b.4. No tubes were preventatively plugged.

KNPP Technical Specification 4.2.b defines a degraded tube as a tube containing an imperfection  $\geq 20\%$  of the nominal tube wall thickness. In addition, TS 4.2.b defines an imperfection as an exception to the dimension, finish, or contour required by drawing or specification. With these definitions, the RSG PSI did not identify any degraded tubes. Some imperfections were identified during the PSI. In SG1, 27

imperfections were reported 25 tubes. In SG2, 18 imperfections were reported in 16 tubes. The locations of the reported imperfections are tabulated and discussed below.

### KNPP PSI Reported Indications

Location	SG1					SG2		
	BLG	BMG	DNG	FSD	MBM	BMG	DNG	MBM
HL TTS	1							
Between 03H and 04H								1
Between 04H and 05H								1
Between 05H and 06H					1			
Between 06H and 07H			1					
TSP 07H			2				6	
Between 07H and 07C (U-bend)		3	2		1	6	3	
TSP 07C			13				1	
Between 07C and 06C				1	1			
CL TTS	1							
TOTALS	2	3	18	1	3	6	10	2

#### Bulge (BLG)

A Bulge is defined as a tube diameter that is greater than nominal. The BLG indications were initiated during RSG fabrication. In SG1, inspection revealed 2 BLG indications located in 2 tubes. Both are located at the top surface of the tubesheet (TTS), one at the hot leg TTS and one at the cold leg TTS. Subsequent inspections with the +Point rotating coil revealed no degradation at either of the BLG locations. There were no BLG indications reported in SG2.

#### Bending Machine Geometry (BMG)

Bending Machine Geometry is defined as a dent-like indication at the u-bend tangent point. In SG1, inspection revealed 3 BMG indications in 3 tubes, 2 of which were in row-9 u-bends and 1 in a row 16 u-bend. In SG2, inspection revealed 6 BMG indications in 6 tubes (two in row-5 u-bends, one in a row-7 u-bend, one in a row-11 u-bend, one in a row-16 u-bend, and one in a row-22 u-bend). All of the BMG indications were present in the tube mill eddy current data. The tube bending manufacturing step is the likely source of BMG indications. Subsequent inspections with the +Point rotating coil revealed no degradation at any of the BMG locations.

#### Ding (DNG)

A Ding is defined as a tube diameter that is less than nominal. In SG1, inspection revealed 18 DNG indications located in 16 tubes. In SG2, inspection revealed 10 DNG indications in 8 tubes. The reporting threshold for reporting DNG indications was 2 volts. The largest reported

DNG indication was 4.66 volts in SG1 and 5.71 volts in SG2. DNG indications were concentrated in the upper bundle region, primarily at the upper TSP elevations. The DNG indications were not present in the tube mill eddy current data; they were likely initiated during RSG fabrication. Subsequent inspections with the +Point rotating coil revealed no degradation at any of the DNG locations.

#### Free-Span Differential (FSD)

A Free Span Differential signal is defined as a free-span indication reported on a differential channel. In SG1, inspection revealed one FSD indication in one tube. This indication was present in the tube mill data. Subsequent inspections with the +Point rotating coil revealed no degradation at the FSD location. There were no FSD indications reported in SG2.

#### Manufacturing Burnish Marks (MBM)

A Manufacturing Burnish Mark is defined as a material discontinuity at a location which has been repaired in the tube mill by buffing. In SG1, inspection revealed 3 MBM indications in 3 tubes. In SG2, inspection revealed 2 MBM indications in 2 tubes. All of the reported MBM indications were present in the tube mill eddy current data. Subsequent inspections with the +Point rotating coil revealed no degradation at the MBM locations.

ATTACHMENT 11

Letter from T. Coutu (NMC)

To

Document Control Desk (NRC)

Dated

February 22, 2002

Examination Summary for Steam Generator 900 KIP  
Hydraulic Snubbers

# **SUMMARY OF VISUAL EXAMINATION, FUNCTIONAL TEST, DISASSEMBLY, OVERHAUL AND INSTALLATION ACTIVITIES**

Wyle Laboratories was contracted by Nuclear Management Company, LLC to provide personnel and equipment to support the functional testing, disassembly and overhaul of two 900 Kip Anker-Holth Steam Generator snubbers at the Kewaunee Nuclear Power Plant. These activities were performed in accordance with Wyle's approved Quality Assurance Program. Additionally, Wyle was asked to perform Visual Examinations (VT-3) prior to removal, at hot functional and to provide technical support during removal, transportation and installation activities.

Personnel required to accomplish these activities consisted of a Site Lead Technician/Machine Operator, A Mechanical Test Specialist and a Quality Assurance Specialist. Equipment supplied consisted of an API/Barker In-Place Test Machine, a 48' rebuild trailer, associated tools and fixtures.

As-Found Visual Examinations (prior to removal) performed in accordance with Paragraph 6.2 of SP-55-313 Rev. D did not identify any recordable indications. The examinations were documented on SP-55-313 Rev. D Appendix A.

Functional testing of the large bore hydraulic snubbers installed on Steam Generators 1A and 1B was performed in accordance with the requirements of SP 55-313 Rev. D "Steam Generator Hydraulic Snubber Testing" and Wyle procedure 41378-1 "Procedure For In-Place Testing Of 900 Kip Anker-Holth Snubbers At Kewaunee Nuclear Power Plant".

The 900 Kip Anker-Holth snubbers, S/N 25.12620.004-1 and 25.12620.004-7 were subjected to the following tests:

- 1) Breakaway Force: Measured the force required to initiate movement in the tension and compression directions.
- 2) Drag force: Measured the force required to maintain movement in the tension and compression directions.
- 3) Lockup Velocity / Activation: Measured the fluid flow (equivalent to a piston velocity) at which the snubber activated to the velocity limiting mode in the tension and compression directions.
- 4) Bleed / Release Rate @ 100 +5/-0 Kips: Measured the fluid flow (equivalent to a piston velocity) at which the snubber bled / released while in the velocity limiting mode in the tension and compression directions. This test was performed to confirm test technique at a lower force.
- 5) Bleed / Release Rate @ 500 +5/-0 Kips: Measured the fluid flow (equivalent to a piston velocity) at which the snubber bled / released while in the velocity limiting mode in the tension and compression directions.



The following is a tabulation of As-Found functional test results:

<b>S/N 25.1260.004-1 installed on Steam Generator 1A</b>		
Examination # 1 As-Found		
Test Load @ 100 +5/-0 Kips		
Test Parameter	Tension	Compression
Lockup velocity	1.06 IPM	0.92 IPM
Bleed Rate	0.0095 IPM	0.0093 IPM
Test Load @ 500 +5/-0 Kips		
Breakaway Force	< 2.0 Kips	< 2.0 Kips
Drag Force	< 2.0 Kips	< 2.0 Kips
Lockup Velocity	1.04 IPM	0.88 IPM
Bleed Rate	0.1099 IPM	0.1116 IPM

<b>S/N 25.1260.004-7 installed on Steam Generator 1B</b>		
Examination # 2 As-Found		
Test Load @ 100 +5/-0 Kips		
Test Parameter	Tension	Compression
Lockup velocity	0.97 IPM	0.93 IPM
Bleed Rate	0.0121 IPM	0.0114 IPM
Test Load @ 500 +5/-0 Kips		
Breakaway Force	< 2.0 Kips	< 2.0 Kips
Drag Force	< 2.0 Kips	< 2.0 Kips
Lockup Velocity	0.95 IPM	0.93 IPM
Bleed Rate	0.1277 IPM	0.1217 IPM

These test results are within the values specified in SP-55-313 Rev. D

Overhaul activities consisted of disassembly, cleaning, inspection, photographing, seal replacement and assembly of S/N 25.12620.004-1 and S/N 25.12620.004-7. Performance of these activities was documented on Wyle's Hydraulic Snubber Control Cards.

Upon disassembly some light corrosion was found in the snubbers. However, the corrosion was not sufficient enough to be considered anomalous. The corrosion was removed during parts cleaning.

Plant Quality Control requested Hold Points for cleanliness inspection at Steps 4.5 and 4.15 "Parts acceptable for reassembly". Hold Points were placed at these steps in each control card and Quality Control was called when each step was reached during overhaul. Plant QC and Wyle QA initialed these steps in the Hydraulic Snubber Control Cards.

Upon completion of overhaul, As-Left functional tests were performed on each snubber. During the As-Left tension release rate test, Examination #3, Steam Generator 1B's snubber S/N 25.12620.004-7 exhibited fluid leakage around the cylinder head bolts. Testing was terminated and Notice of Anomaly (NOA) #1 and KNPP KAPWO #01-016757 were initiated.

The NOA recommended disassembly and the replacement of the leaking seal. Inspection after disassembly identified that the cylinder head o-ring's backup ring had been cut during assembly. The cylinder head's o-ring and backup ring were replaced with new parts from the warehouse. Additional sheets (2 of 4 & 3 of 4) of the Hydraulic Snubber Control Card were used to document disassembly, inspection, assembly and parts used.

The following is a tabulation of the As-Left functional test results:

<b>S/N 25.1260.004-1 installed on Steam Generator 1A</b>		
<b>Examination # 4 As-Left</b>		
<b>Test Load @ 100 +5/-0 Kips</b>		
<b>Test Parameter</b>	<b>Tension</b>	<b>Compression</b>
Lockup velocity	1.04 IPM	0.89 IPM
Bleed Rate	0.0094 IPM	0.0091 IPM
<b>Test Load @ 500 +5/-0 Kips</b>		
Breakaway Force	≤ 2.0 Kips	< 2.5 Kips
Drag Force	≤ 2.0 Kips	< 2.5 Kips
Lockup Velocity	1.07 IPM	0.87 IPM
Bleed Rate	0.1079 IPM	0.1084 IPM
<b>S/N 25.1260.004-7 installed on Steam Generator 1B</b>		
<b>Examination # 5 As-Left</b>		
<b>Test Load @ 100 +5/-0 Kips</b>		
<b>Test Parameter</b>	<b>Tension</b>	<b>Compression</b>
Lockup velocity	0.97 IPM	0.91 IPM
Bleed Rate	0.0113 IPM	0.0105 IPM
<b>Test Load @ 500 +5/-0 Kips</b>		
Breakaway Force	< 2.5 Kips	< 2.5 Kips
Drag Force	< 2.5 Kips	< 2.5 Kips
Lockup Velocity	0.99 IPM	0.88 IPM
Bleed Rate	0.1270 IPM	0.1197 IPM

These test results are within the values specified in SP-55-313 Rev. D

**Additional Activities:**

- 1) Fluid Sampling: A 1-liter fluid sample was taken from each snubber for analysis. The following is a tabulation of the fluid analysis:


<b>Steam Generator 1A 25.12620.004-1</b>		
Viscosity @ 100 deg. F	497.5 SUS	$SSU \approx (SUS \times 0.0022 - 1.80 / SUS) \times 100$
Viscosity @ 210 deg. F		112.7 SUS
Acid Number		< 0.01 mg KOH/g
<b>Particle Count</b>		
5 to 10 microns		104294 / 100 mL
10 to 25 microns		14550 / 100 mL
25 to 50 microns		465 / 100 mL
50 to 100 microns		15 / 100 mL
> 100 microns		0 / 100 mL
<b>Steam Generator 1B 25.12620.004-7</b>		
Viscosity @ 100 deg. F	494.0 SUS	$SSU \approx (SUS \times 0.0022 - 1.80 / SUS) \times 100$
Viscosity @ 210 deg. F		112.3
Acid Number		< 0.01 mg KOH/g
<b>Particle Count</b>		
5 to 10 microns		113994 / 100 mL
10 to 25 microns		21937 / 100 mL
25 to 50 microns		706 / 100 mL
50 to 100 microns		30 / 100 mL
> 100 microns		0 / 100 mL

- 2) Reservoir Fitting Replacement (Flare): Inspection of reservoir lines after installation of Steam Generator 1A's snubber identified that the reservoir line was leaking at the flare fitting (fitting to tube joint) on the control valve. A new flare fitting was obtained from the warehouse, installed in the control valve and the line reconnected. Inspection the following morning identified the fitting was still leaking at the same location. The tubing was disconnected the old flare was cut off and the tubing was flared again. The tubing was reconnected and tightened. Inspection the following morning identified that the fitting was still leaking, just slightly but leaking. The decision was made that the best way to stop the leaking joint was to replace the flared fitting with the same type fitting (Swage-Lok) used on the snubber installed on Steam Generator 1B.
- 3) Reservoir Fitting Replacement (Swage-Lok): A Swage-Lok fitting was obtained from the warehouse, the reservoir line disconnected and the flare cut off. The flare fitting was removed from the control valve and replaced with the Swage-Lok fitting. The reservoir line was reconnected and tightened. Subsequent inspections failed to identify any further leakage.

All parts were provided by KNPP and are listed in Section 5.0 of the Final Report . All work was documented in Bechtels Steam Generator replacement document for snubber removal and installation.

Additional Activities (cont.)

- 4) The reservoirs on 1A and 1B Steam Generators were filled to approximately 50% with new fluid provided by KNPP.
- 5) Post installation VT-3 examinations were performed on Steam Generator 1A and 1B snubbers upon completion of installation activities. These exams revealed no recordable indications.
- 6) As-Left VT-3 examinations were performed on Steam Generator 1A and 1B snubbers at a generator temperature of 547° F. The generators had stabilized at 547° F for more than four hours prior to the exams being performed. These exams revealed no recordable indications.



Michael L. Miller Sr.  
Sr. Enger. Specialist  
Wyle Laboratories

## ATTACHMENT 12

Letter from T. Coutu (NMC)

To

Document Control Desk (NRC)

Dated

February 22, 2002

Summary of Examinations Which Were Limited by Geometric,  
Metallurgical, or Design/Access Restrictions and Associated Data Sheets

Examinations performed during the first outage, third period, third interval, were intended to examine 100% of the required surface or volume. In some cases, examinations were limited by geometric, metallurgical or design/access restrictions. In each case, the occurrence and cause of the limitation was documented. In all cases, the maximum amount of examination area/volume achievable was examined. The following is a list of examinations performed during the first outage, third period, and third interval, identifying those components where limitations occurred. Attachment 12 of this report transmits NDE data sheets for the 2001 examinations, which were limited by geometric, metallurgical, or design/access restrictions.

<b>2001 Summary of Limitations for 1<sup>st</sup> Outage, 3<sup>rd</sup> Period, 3<sup>rd</sup> Interval Inservice Inspection</b>			
<b>Year</b>	<b>Component Identification</b>	<b>Method of Examination</b>	<b>% Recorded As Not Examined and Limitation</b>
2001	Reactor Vessel Closure Head Flange Weld RV-W12	UT	23%: Lifting Lug: Head to Flange Configuration
2001	Longitudinal Weld P-W2 on Pressurizer	UT	3%: Insulation Support Ring
2001	Circumferential Weld P-W3 on Pressurizer	UT	3%: 2 Welded Pads, 2 Instrumentation Lines and Curvature of Pressurizer Head
2001	Circumferential Weld P-W5 on Pressurizer	UT	2%: 2 Welded Pads and 2 Instrumentation Lines
2001	Nozzle Inside Radius Section SG-IR25 on Replacement Steam Generator 1A	UT	6.3%: Integrally Welded Attachment
2001	Nozzle Inside Radius Section SG-IR26 on Replacement Steam Generator 1A	UT	6.3%: Integrally Welded Attachment
2001	Nozzle Inside Radius Section SG-IR27 on Replacement Steam Generator 1B	UT	6.3%: Integrally Welded Attachment
2001	Nozzle Inside Radius Section SG-IR28 on Replacement Steam Generator 1B	UT	6.3%: Integrally Welded Attachment
2001	Circumferential Weld SG-W2 on Existing Steam Generator 1A	UT	11.1%: 4 Welded Pads and Weld Crown
2001	Circumferential Weld SG-W9 on Existing Steam Generator 1B	UT	0.113%: 4 Welded Pads
2001	Circumferential Weld SG-W10 on Existing Steam Generator 1B	UT	7.9%: 4 Welded Pads 3-Nozzles and Weld Crown
2001	Circumferential Weld SG-W25 on Replacement Steam Generator 1A	UT	9%: 3 Handholes and 4", 2 <sup>1/4"</sup> and 2" Nozzles (7 total)
2001	Circumferential Weld SG-W31 on Replacement Steam Generator 1B	UT	9%: 3 Handholes and 4", 2 <sup>1/4"</sup> and 2" Nozzles (7 total)

<b>2001 Summary of Limitations for 1<sup>st</sup> Outage, 3<sup>rd</sup> Period, 3<sup>rd</sup> Interval Inservice Inspection</b>			
<b>Year</b>	<b>Component Identification</b>	<b>Method of Examination</b>	<b>% Recorded As Not Examined and Limitation</b>
2001	Circumferential Weld AHNW-W2 on Letdown Heat Exchanger	UT	43%: 2 Welded Supports and 2 - 2" Nozzles
2001	Circumferential Weld APD-1B-W4 on Charging Pump Pulsation Dampener APD-1B	UT	8.6%: Welded Name Tag
2001	Circumferential Weld AFSI-W1 on Seal Water Injection Filter AFSI-1A	UT	67.06%: Flange Configuration, Flange Cover Hinge Plate and Welded Name Plate
2001	Integrally Welded attachment APSI-1A-S3 on Safety Injection Pump APSI-1A	MT	14.6%: Support Configuration
2001	Integrally Welded attachment APSI-1B-S1 on Safety Injection Pump APSI-1B	MT	14.6%: Support Configuration
2001	Integrally Welded attachment APSI-1B-S4 on Safety Injection Pump APSI-1B	MT	14.6%: Support Configuration
2001	Circumferential Weld MS-W50 on 30" Diameter Main Steam	UT	8%: O.D. Configuration
2001	Longitudinal Weld MS-W90L on 32" Diameter Main Steam	UT	22%: 1" Elbow Taper
2001	Longitudinal weld MS-W91L on 32" Diameter Main Steam	UT	63%: 1" Vent Line
2001	Longitudinal weld MS-W91L on 32" Diameter Main Steam	MT	50%: 1" Vent Line
2001	Circumferential Weld SI-W307 on 3" Diameter Safety Injection	UT	47.5%: 3" x 3" x 3" Tee Configuration
2001	Circumferential Weld SI-W108 on 6" Diameter Safety Injection	UT	50%: Valve Configuration
2001	Circumferential Nozzle to Safe End Butt Weld PR-W16DM on 6" Diameter Reactor Coolant - From Pressurizer	UT	50%: Material Configuration and O.D. Taper
2001	Circumferential Weld RHR-W10 on 8" Diameter Residual Heat Removal	UT	63%: Valve Configuration and 3/4" Drain Line
2001	Circumferential Weld RHR-W10 on 8" Diameter Residual Heat Removal	PT	1%: 3/4" Drain Line

<b>2001 Summary of Limitations for 1<sup>st</sup> Outage, 3<sup>rd</sup> Period, 3<sup>rd</sup> Interval Inservice Inspection</b>			
<b>Year</b>	<b>Component Identification</b>	<b>Method of Examination</b>	<b>% Recorded As Not Examined and Limitation</b>
2001	Circumferential Weld RHR-W48 on 10" Diameter Residual Heat Removal	PT	20%: Rigid Restraint
2001	Circumferential Weld RHR-414 on 12" Diameter Residual Heat Removal	UT	59%: Valve Configuration and 2 Weldolets
2001	Circumferential Weld FW-W24 on 16" Diameter Feedwater	UT	8%: Valve Configuration
2001	Circumferential Weld FW-W52 on 16" Diameter Feedwater	UT	8%: Valve Configuration
2001	Integrally welded attachment FDW-H170 on 16" Diameter Feedwater Line	VT-3	100% of Saddle Weld: Pipe Encapsulation
2001	Replacement Steam Generator 1A Nozzle to Safe End Butt Weld RC-W76DM	UT	38.1%: Nozzle Configuration
2001	Replacement Steam Generator 1A Nozzle to Safe End Butt Weld RC W77DM	UT	38.1%: Nozzle Configuration
2001	Replacement Steam Generator 1B Nozzle to Safe End Butt Weld RC-W78DM	UT	40.25%: Nozzle Configuration
2001	Replacement Steam Generator 1B Nozzle to Safe End Butt Weld RC-W79DM	UT	40.25%: Nozzle Configuration



REV.: ORIG.

EXAMINER: Simon Crothers II DATE: 10-2-01  
LEVEL

Technical drawing of a dome structure, showing a side elevation and a cross-section.

**Side Elevation:**

- The dome is labeled **RV-W12**.
- The base is labeled **2**.
- The dome is labeled **1**.
- Dimensions: **5** (height), **8** (width), **2** (base width).

**Cross-section:**

- The dome is labeled **RV-W12**.
- The base is labeled **2**.
- Dimensions: **5** (height), **5** (width), **RV-W12** (base width).

**Additional Dimensions:**

- W12 = 3.5"**
- T = 6.1"**
- LENGTH = 138"**

- ① SCAN 5, 45° + 60° EXAMS LIMITED DUE TO LIFTING LUG AT STUD HOLE 43.
- ② ALL SCANS 0° 45° + 60° EXAMS LIMITED DUE TO HEAD TO FLANGE CONFIGURATION.

COVERAGE: REDUCED CODE/PROCEDURE COVERAGE = 23% OF 138" EXAM LENGTH,  
FROM E OF STUD HOLE 33 TO E OF STUD HOLE 1.

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: *Ryan McGinnis* DATE: 10-4-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: PRESSURIZER PZR

DRAWING NO.: M-1200

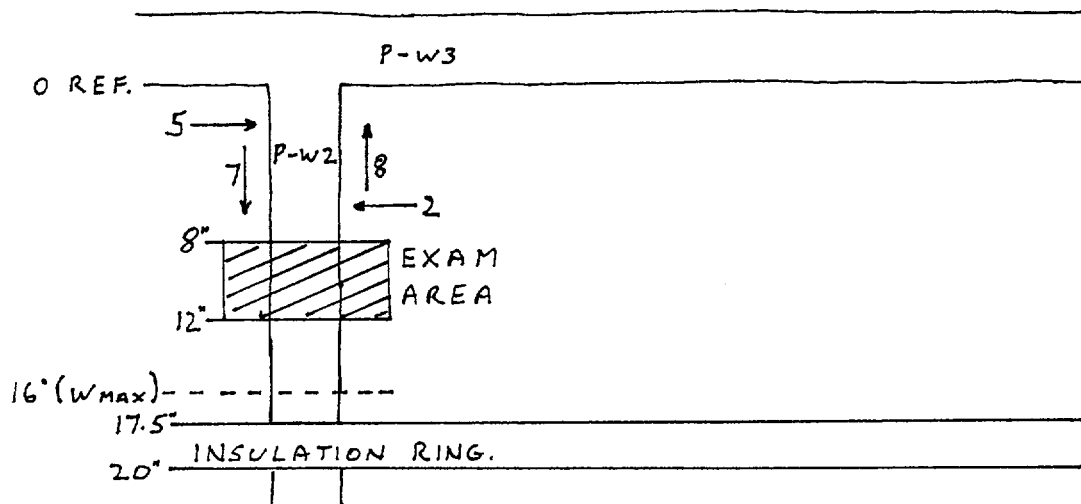
COMPONENT IDENTIFICATION: P-W2 PROCEDURE: NEP-15.09 REVISION: A

ULTRASONIC: X LIQUID PENETRANT: \_\_\_\_\_ MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: \_\_\_\_\_

EXAMINER: Simon Crothers II DATE: 10-5-01  
LEVEL

EXAMINER: Brian D. KNOTT II DATE: 10/5/01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



SCAN 8: 45' + 60' LIMITED TO A  $W_{max}$  OF 4', BY INSULATION RING.  
REDUCED CODE/PROCEDURE COVERAGE = 3%.

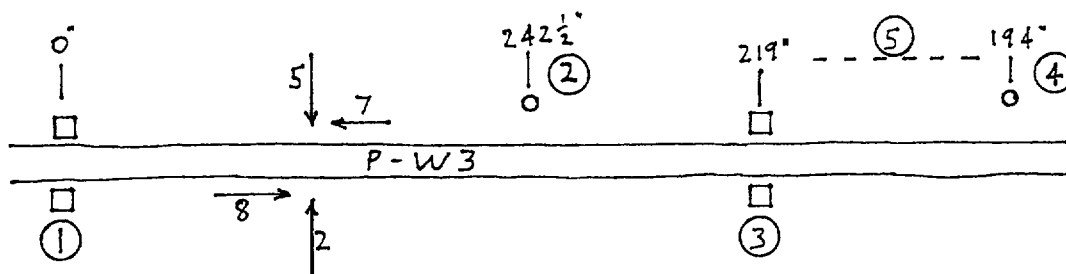
KEWAUNEE NUCLEAR POWER PLANT REVIEW: Phillip E. Bikes DATE: October 8, 2001

AUTHORIZED NUCLEAR INSERVICE INSPECTOR REVIEW: Luigi M. Mignini DATE: 10-9-01

## WISCONSIN PUBLIC SERVICE CORPORATION

REV.: ORIG.

## KEWAUNEE NUCLEAR POWER PLANT

ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND  
VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORDSYSTEM OR COMPONENT: PRESSURIZER PZRDRAWING NO.: M-1200COMPONENT IDENTIFICATION: P-W3 PROCEDURE: NEP-15.09 REVISION: AULTRASONIC: X LIQUID PENETRANT: \_\_\_\_\_ MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: \_\_\_\_\_EXAMINER: Brian A. Knott II DATE: 10-3-01  
LEVELEXAMINER: Simon Crothers II DATE: 10-3-01  
LEVELSKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND  
PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

EXAM AREA: 194" TO 0" = 120"

①③ WELDED PADS: 2" x 2", 1" FROM EACH TOE OF WELD.

LIMITED: 0° / 45° (SCANS 2, 5, 7 + 8) / 60° (SCANS 2, 5, 7 + 8)

②④ INSTRUMENTATION LINES: 1" DIAM, 3.5" FROM TOE OF WELD.

LIMITED: 45° (SCAN 5) / 60° (SCAN 5)

⑤ CURVATURE OF HEAD: 9" FROM TOE OF WELD.

LIMITED: 60° (SCAN 5)

REDUCED PROCEDURE COVERAGE = 3%

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW:Phillip C. BakesDATE: October 8, 2001AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW:Bryan McGinnisDATE: 10-9-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: PRESSURIZER PZR

DRAWING NO.: M-1200

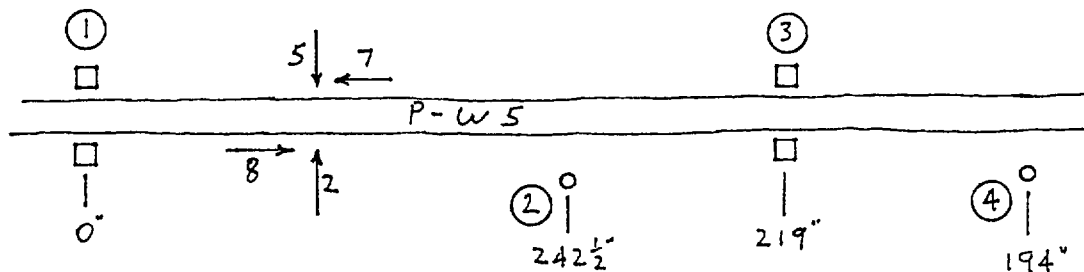
COMPONENT IDENTIFICATION: P-W5 PROCEDURE: NEP-15.09 REVISION: A

ULTRASONIC: X LIQUID PENETRANT: \_\_\_\_\_ MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: \_\_\_\_\_

EXAMINER: Brian S. Knott II DATE: 10-3-01  
LEVEL

EXAMINER: Simon Crothers II DATE: 10-3-01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



EXAM AREA: 194" TO 0" = 120"

①③ WELDED PADS: 2" x 2" 1" FROM EACH TOE OF WELD.

LIMITED: 0° / 45° (SCANS 2, 5, 7 + 8) / 60° (SCANS 2, 5, 7 + 8)

②④ INSTRUMENTATION LINES: 1" DIAM, 3.5" FROM TOE OF WELD.

LIMITED: 45° (SCAN 2) / 60° (SCAN 2)

REDUCED PROCEDURE COVERAGE = 2%.

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bakes

DATE: October 8, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Roger McGinnis

DATE: 10-9-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: REPLACEMENT STEAM GENERATORS SG-1A AND SG-1B

DRAWING NO.: M-1201

COMPONENT IDENTIFICATION: SG-1R 25 PROCEDURE: NEP-15.44 REVISION: A

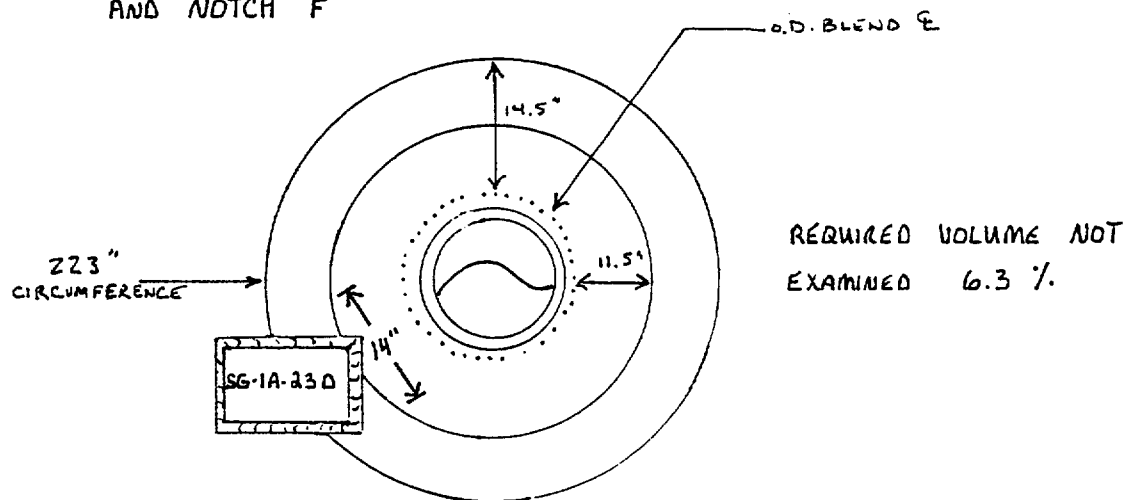
ULTRASONIC: X LIQUID PENETRANT: \_\_\_\_\_ MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: \_\_\_\_\_

EXAMINER: JEFF JOHNSON II DATE: 6-22-01  
LEVEL

EXAMINER: TRAVIS THOMAS II DATE: 6-22-01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

14.0" OF INTEGRALLY WELDED ATTACHMENT SG-1A-23 D  
LIMITED 60° SCANS WITH CALIBRATION FOR NOTCH B  
AND NOTCH F



KEWAUNEE NUCLEAR POWER PLANT REVIEW: Phillip C. Bukes DATE: June 25, 2001  
AUTHORIZED NUCLEAR INSERVICE INSPECTOR REVIEW: Raymond M. [Signature] DATE: 6-25-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: REPLACEMENT STEAM GENERATORS SG-1 A AND SG-1 B

DRAWING NO.: M-1201

COMPONENT IDENTIFICATION: SG-IR 26 PROCEDURE: NEP-15.44 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: JEFF JOHNSON II DATE: 6-22-01

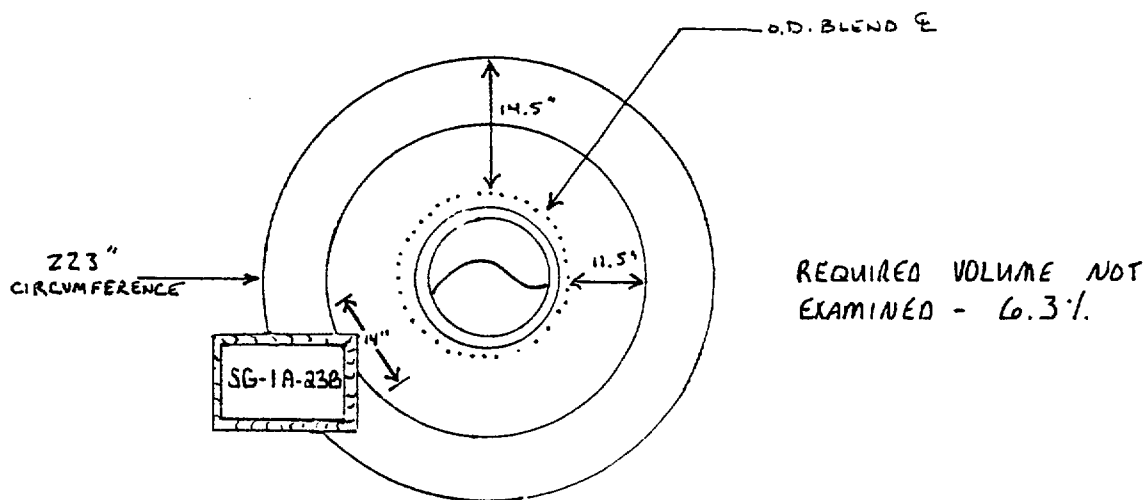
LEVEL

EXAMINER: TRAVIS THOMAS II DATE: 6-22-01

LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

14.0" OF INTEGRALLY WELDED ATTACHMENT SG-1A-23 B LIMITED 60°  
SCANS WITH CALIBRATION FOR NOTCH B AND NOTCH F



KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bukes

DATE: June 25, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Ryan McGuire

DATE: 6-25-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: REPLACEMENT STEAM GENERATORS SG-1A AND SG-1B

DRAWING NO.: M-1201

COMPONENT IDENTIFICATION: SG-1B 27 PROCEDURE: NEP-15.44 REVISION: A

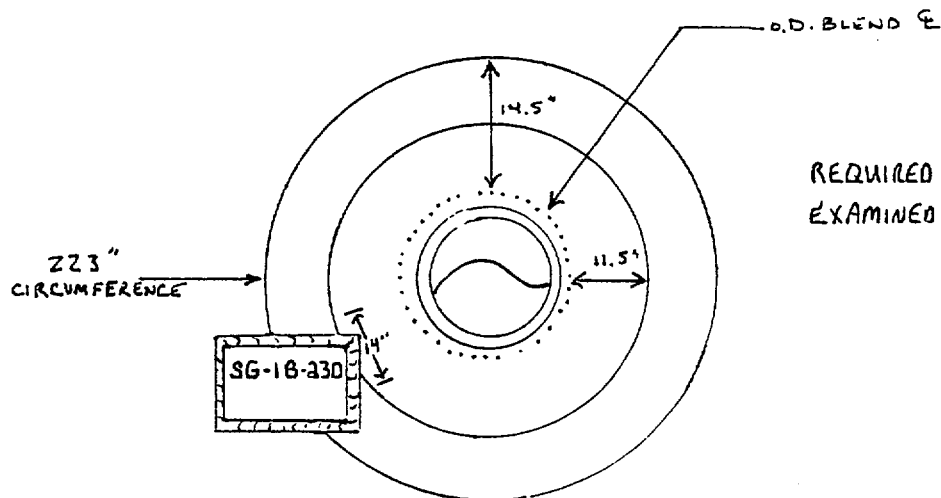
ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: JEFF JOHNSON II DATE: 6-23-01  
LEVEL

EXAMINER: TRAVIS THOMAS II DATE: 6-23-01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

14.0" OF INTEGRALLY WELDED ATTACHMENT SG-1B-23 D LIMITED  
60° SCANS WITH CALIBRATION FOR NOTCH B AND F.



REQUIRED VOLUME NOT  
EXAMINED - 6.3 %.

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bures DATE: June 25, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Roger M. Wynn DATE: 6-25-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: REPLACEMENT STEAM GENERATORS SG-1A AND SG-1B

DRAWING NO.: M-1201

COMPONENT IDENTIFICATION: SG-1B 23 PROCEDURE: NEP-15.44 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: JEFF JOHNSON

II  
LEVEL

DATE: 6-23-01

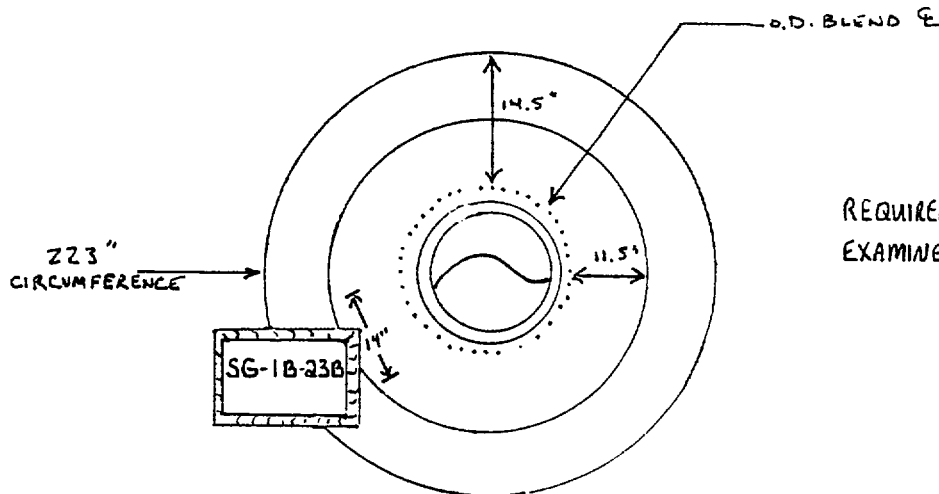
EXAMINER: TRAVIS THOMAS

II  
LEVEL

DATE: 6-23-01

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

14.0" OF INTEGRALLY WELDED ATTACHMENT SG-1B-23 B LIMITED  
60° SCANS WITH CALIBRATION FOR NOTCH B AND NOTCH F



REQUIRED VOLUME NOT  
EXAMINED 6.3 %

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW:

Phillip C. Baker

DATE: June 25, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW:

Roger McGuire

DATE: 6-25-01



**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

*EXISTING AND REPLACEMENT*

SYSTEM OR COMPONENT: STEAM GENERATORS SG-1A AND SG-1B

DRAWING NO.: M-1206

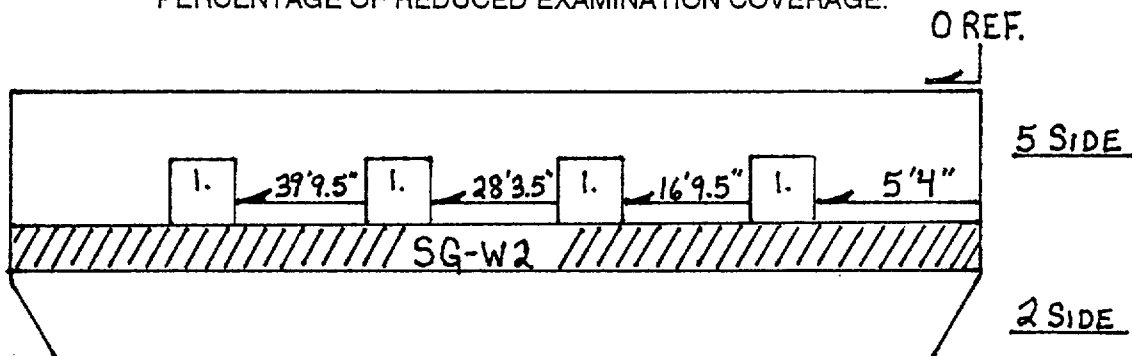
COMPONENT IDENTIFICATION: SG-W2 PROCEDURE: NEP-15.09 REVISION: A

ULTRASONIC: X LIQUID PENETRANT: \_\_\_\_\_ MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: \_\_\_\_\_

EXAMINER: Brian A. Knott II DATE: 11/10/01  
LEVEL

EXAMINER: [Signature] II DATE: 11/9/01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



1. FOUR WELDED PADS 7.75" X 10.75" MEASURED IN THE CW DIRECTION FROM 0 REF. LOCATED ON THE WELD TOE ON THE 5 SIDE OF THE WELD LIMITS 5, 7 AND 8 SCANS.
2. WELD CROWN LIMITS SCANS 2, 5, 7 AND 8 FOR THE 45°
3. 45° - REDUCED CODE/PROCEDURE COVERAGE BY 7%

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillips C. Bukes DATE: November 17, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: [Signature] DATE: 11-20-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: STEAM GENERATORS EXISTING AND REPLACEMENT SG-1A AND SG-1B

DRAWING NO: M-1206

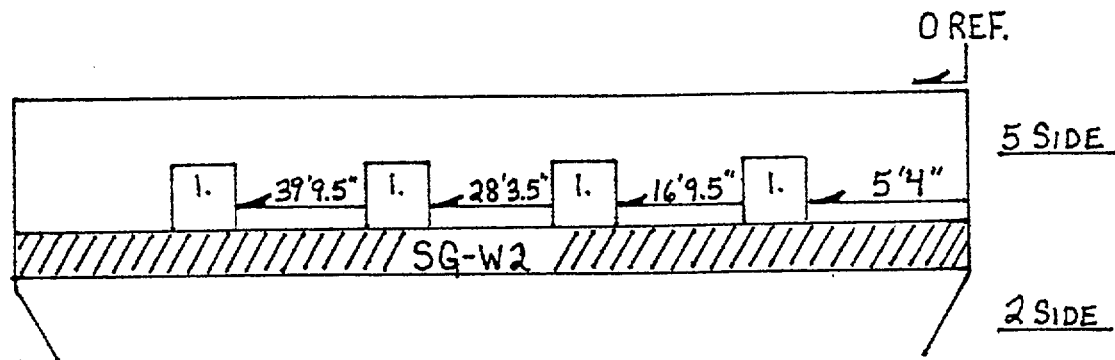
COMPONENT IDENTIFICATION: SG-W2 PROCEDURE: NEP-15.09 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: TIM COBURN *[Signature]* II DATE: 11/10/01  
LEVEL

EXAMINER: *[Signature]* II DATE: 11/10/01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



1. FOUR WELDED PADS 7.75" X 10.75" MEASURED IN THE CW DIRECTION FROM O REF. LOCATED ON THE WELD TOE ON THE 5 SIDE OF THE WELD

2. 0° - REDUCED CODE / PROCEDURE COVERAGE BY 3% ON 5 SIDE.

KEWAUNEE NUCLEAR POWER PLANT REVIEW: Phillip C. Bakes DATE: November-17, 2001

AUTHORIZED NUCLEAR INSERVICE INSPECTOR REVIEW: *[Signature]* DATE: 11-20-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: STEAM GENERATORS EXISTING AND REPLACEMENT SG-1A AND SG-1B

DRAWING NO: M-1206

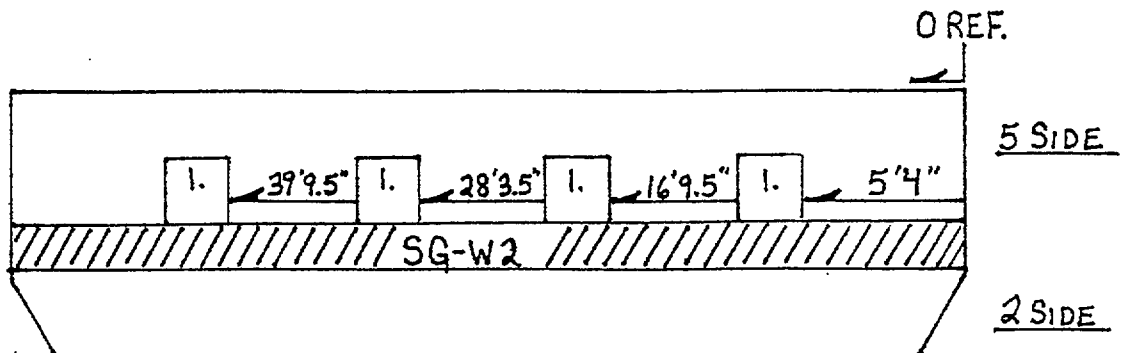
COMPONENT IDENTIFICATION: SG-W2 PROCEDURE: NEP-15.09 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: TIM COBURN [Signature] II DATE: 11/10/01  
LEVEL

EXAMINER: [Signature] II DATE: 11/10/01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



1. FOUR WELDED PADS 7.75" X 10.75" MEASURED IN THE CWD DIRECTION FROM O REF. LOCATED ON THE WELD TOE ON THE 5 SIDE OF THE WELD LIMITS 5, 7 AND 9 SCANS.
2. WELD CROWN LIMITS SCANS 2, 5, 7 AND 8 FOR THE 60°
3. REDUCED CODE / PROCEDURE COVERAGE BY 0.5% FOR SCANS 7 AND 8 DUE TO WELDED PADS.
4. REDUCED CODE / PROCEDURE COVERAGE BY 0.5% FOR SCAN 5.
5. REDUCED CODE / PROCEDURE COVERAGE BY 0.1% FOR SCAN 2.

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Baker DATE: November 17, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: [Signature] DATE: 11-20-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

EXISTING AND REPLACEMENT

SYSTEM OR COMPONENT: STEAM GENERATORS SG-1A AND SG-1B

DRAWING NO.: M-1206

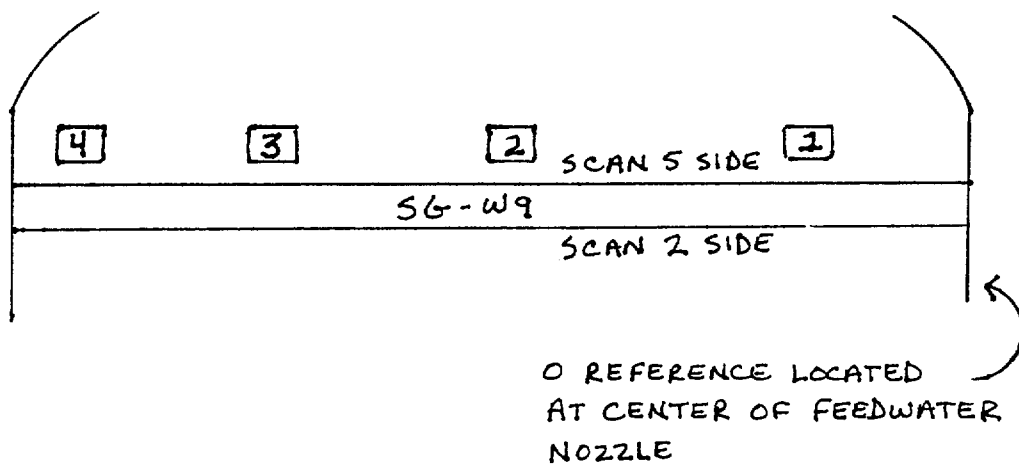
COMPONENT IDENTIFICATION: SG-W9 PROCEDURE: NEP-15.09 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: *Tim Coburn* II DATE: 10/6/01  
LEVEL

EXAMINER: *Timothy Hagan* II DATE: 10-6-01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



1. WELDED PAD 2.7" x 2.7" LOCATED 60° FROM O REFERENCE ON S SIDE.
2. WELDED PAD 2.7" x 2.7" LOCATED 150° FROM O REFERENCE ON S SIDE.
3. WELDED PAD 2.7" x 2.7" LOCATED 240° FROM O REFERENCE ON S SIDE.
4. WELDED PAD 2.7" x 2.7" LOCATED 330° FROM O REFERENCE ON S SIDE.

ALL PADS 1.6" FROM TOE OF WELD ON S SIDE.

SCAN 5 LIMITED ON THE 45° AND 60° DUE TO WELDED PADS.

REDUCED CODE COVERAGE BY 0.113%.

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: *Phillip C. Bures* DATE: October 16, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: *Roger McGuire* DATE: 10-18-01

REV.: ORIG.

**WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT  
ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND  
VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

SYSTEM OR COMPONENT: STEAM GENERATORS EXISTING AND REPLACEMENT SG-1A AND SG-B

DRAWING NO.: M-1206

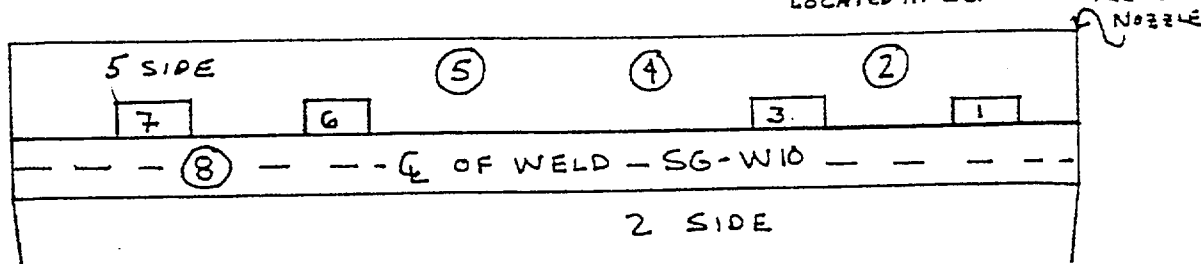
COMPONENT IDENTIFICATION: SG-W10 PROCEDURE: NEP-15.09 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: Brian D. Knott II DATE: 11/12/01  
LEVEL

EXAMINER: [Signature] II DATE: 11/12/01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE. O REFERENCE LOCATED AT CENTER OF FEEDWATER NOZZLE



1. WELDED PAD  $7\frac{3}{4}" \times 10\frac{3}{4}"$  LOCATED AT  $5' 4"$  CW FROM O REFERENCE ON 5 SIDE OF WELD LIMITS  $0^\circ, 45^\circ + 60^\circ$  SCANS \*
  2. 2" NOZZLE LOCATED AT  $13' 4\frac{1}{2}"$  CW FROM O REFERENCE  $6\frac{3}{4}"$  FROM TOE OF WELD ON 5 SIDE LIMITS  $60^\circ$  SCAN
  3. WELDED PAD  $7\frac{3}{4}" \times 10\frac{3}{4}"$  LOCATED AT  $16' 9\frac{1}{2}"$  CW FROM O REFERENCE ON 5 SIDE OF WELD LIMITS  $0^\circ, 45^\circ + 60^\circ$  SCANS \*
  4. 2" NOZZLE LOCATED AT  $21' 1"$  CW FROM O REFERENCE  $6\frac{3}{4}"$  FROM TOE OF WELD ON 5 SIDE LIMITS  $60^\circ$  SCAN
  5. 2" NOZZLE LOCATED AT  $24' 11"$  CW FROM O REFERENCE  $6\frac{3}{4}"$  FROM TOE OF WELD ON 5 SIDE LIMITS  $60^\circ$  SCAN
  6. WELDED PAD  $7\frac{3}{4}" \times 10\frac{3}{4}"$  LOCATED AT  $28' 3\frac{1}{2}"$  CW FROM O REFERENCE ON 5 SIDE OF WELD LIMITS  $0^\circ, 45^\circ + 60^\circ$  SCANS \*
  7. WELDED PAD  $7\frac{3}{4}" \times 10\frac{3}{4}"$  LOCATED AT  $39' 9\frac{1}{2}"$  CW FROM O REFERENCE ON 5 SIDE OF WELD LIMITS  $0^\circ, 45^\circ + 60^\circ$  SCANS \*
  8. WELD CROWN LIMITS  $0^\circ, 45^\circ + 60^\circ$  SCANS
- \* PAD STARTS AT TOE OF WELD
- 7.9% OF REQUIRED VOLUME NOT EXAMINED

KEWAUNEE NUCLEAR POWER PLANT REVIEW: Phillip C. Baker DATE: Nov. 20, 2001

AUTHORIZED NUCLEAR INSERVICE INSPECTOR REVIEW: [Signature] DATE: 11-21-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: STEAM GENERATORS EXISTING AND REPLACEMENT SG-1A & SG-1B

DRAWING NO.: m-1206

COMPONENT IDENTIFICATION: SG-W25 PROCEDURE: NEP-15.09 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

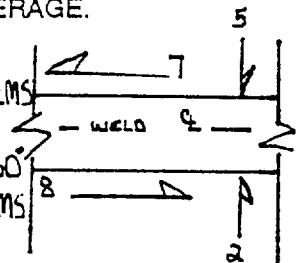
EXAMINER: TRAVIS THOMAS II DATE: 6-8-01  
 LEVEL

EXAMINER: JEFF JOHNSON II DATE: 6-8-01  
 LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

- 1 HANDHOLE 28"-48", 2.5" FROM TOE OF WELD 5 SIDE.
- 2 4" NOZZLE 35"-42", 2.5" FROM TOE OF WELD 2 SIDE.
- 3 HANDHOLE 133"-156", 2.0" FROM TOE OF WELD 5 SIDE.
- 4 2" NOZZLE 179"-183", @ TOE OF WELD 5 SIDE.
- 5 2" NOZZLE 214"-218", @ TOE OF WELD 5 SIDE.
- 6 4" NOZZLE 249"-255", 2.5" FROM TOE OF WELD 2 SIDE.
- 7 HANDHOLE 241 1/2"-264", 2.5" FROM TOE OF WELD 5 SIDE.
8. 2" NOZZLE 285"-289", @ TOE OF WELD 5 SIDE.
9. 2" NOZZLE 320"-325", @ TOE OF WELD 5 SIDE.
10. 2" NOZZLE 386"-391", 2.5" FROM TOE OF WELD 2 SIDE.

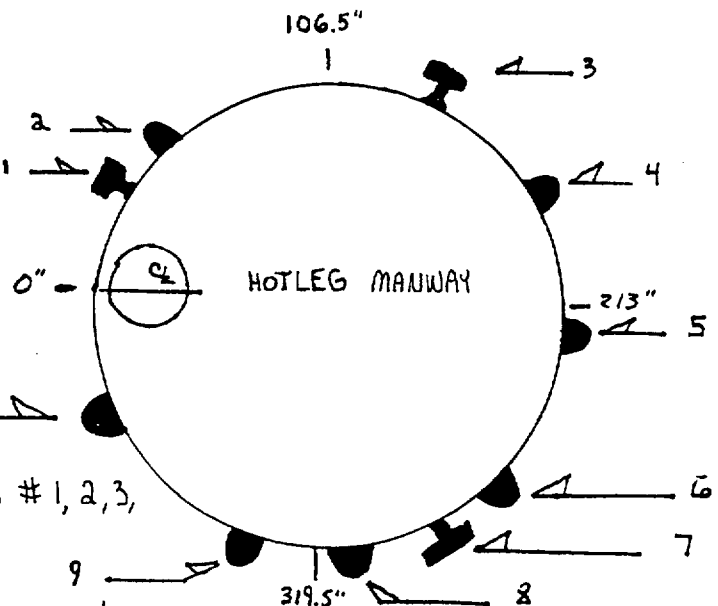
SCAN 2: 45° & 60°  
 LIMITATION FROM ITEMS # 2, 6, 10.  
 SCAN 7: 45° & 60°  
 LIMITATION FROM ITEMS # 4, 5, 8, 9, 10.



0° SCAN: LIMITATION FROM ITEMS # 1, 2, 3, # 4, 5, 8, 9, 10, 6, & 7.

SCAN 5: 45° & 60° LIMITATION FROM ITEMS # 1, 3, 4, 5, 7, 8, 9.

REQUIRED VOLUME NOT EXAMINED = 9%.



KEWAUNEE NUCLEAR  
 POWER PLANT REVIEW: Phillip C. Bures

DATE: June 12, 2001

AUTHORIZED NUCLEAR  
 INSERVICE INSPECTOR REVIEW: Bryan McQuinn

DATE: 6-13-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: STEAM GENERATORS EXISTING AND REPLACEMENT SG-1A AND SG-1B

DRAWING NO.: M-1206

COMPONENT IDENTIFICATION: SG-W31 PROCEDURE: NEP-15.09 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: JM JOHNSON Jm Johnson II DATE: 6-14-01  
 LEVEL

EXAMINER: TW THOMAS Tw Thomas II DATE: 6-14-01  
 LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

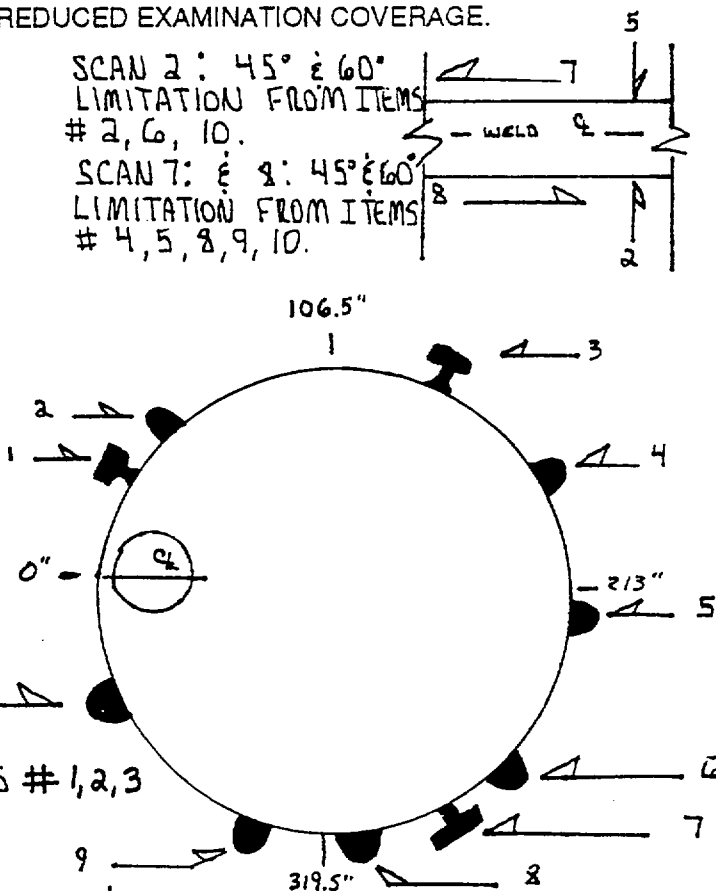
- 1 HANDHOLE 28"-48", 2.5" FROM TOE OF WELD 5 SIDE.
- 2 4" NOZZLE 35"-42", 2.5" FROM TOE OF WELD 2 SIDE.
- 3 HANDHOLE 133"-156", 2.0" FROM TOE OF WELD 5 SIDE.
- 4 2" NOZZLE 179"-183", @ TOE OF WELD 5 SIDE.
- 5 2" NOZZLE 214"-218", @ TOE OF WELD 5 SIDE.
- 6 4" NOZZLE 249"-255", 2.5" FROM TOE OF WELD 2 SIDE.
- 7 HANDHOLE 241 1/2"-264", 2.5" FROM TOE OF WELD 5 SIDE.
- 8 2" NOZZLE 285"-289", @ TOE OF WELD 5 SIDE.
- 9 2" NOZZLE 320"-325", @ TOE OF WELD 5 SIDE.
- 10 2" NOZZLE 386"-391", 2.5" FROM TOE OF WELD 2 SIDE.

0° SCAN: LIMITATION FROM ITEMS # 1, 2, 3  
 # 4, 5, 8, 9, 10, 6 & 7

SCAN 5: 45° & 60° LIMITATION FROM ITEMS # 1, 3, 4, 5, 7, 8, 9.

REQUIRED VOLUME NDT EXAMINED = 91.

SCAN 2: 45° & 60°  
 LIMITATION FROM ITEMS # 2, 6, 10.  
 SCAN 7: 45° & 60°  
 LIMITATION FROM ITEMS # 4, 5, 8, 9, 10.



KEWAUNEE NUCLEAR POWER PLANT REVIEW: Phillips C. Bakes

DATE: June 16, 2001

AUTHORIZED NUCLEAR INSERVICE INSPECTOR REVIEW: Logan McQuinn

DATE: 6-16-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: LETDOWN HEAT EXCHANGER AHLD

DRAWING NO.: M-1209

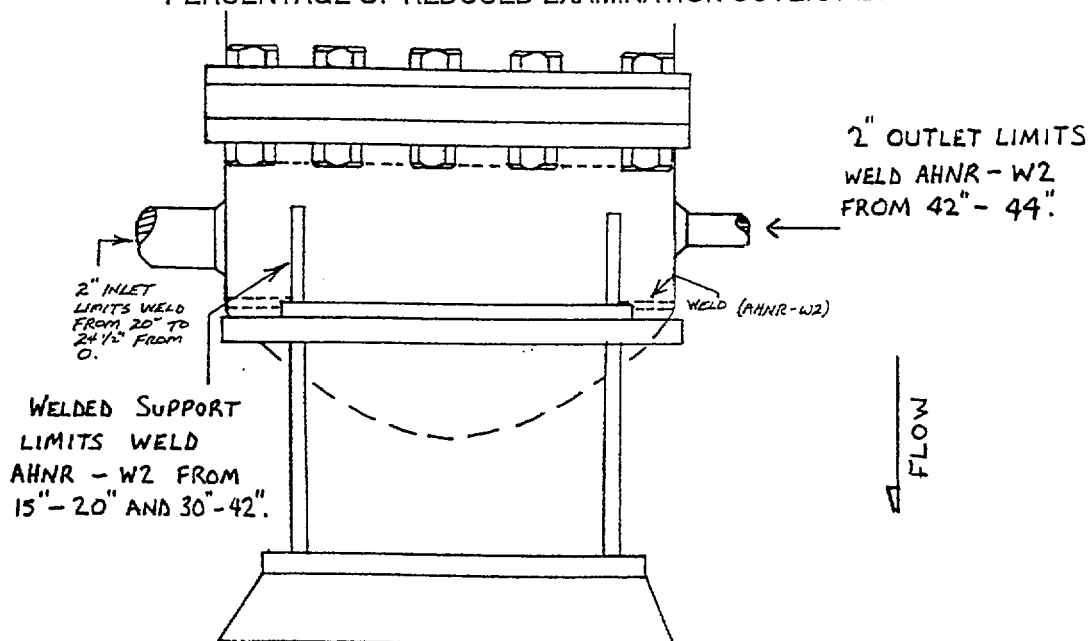
COMPONENT IDENTIFICATION: AHNR - W2 PROCEDURE: NEP-15.41 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: TIM COBURN [Signature] II DATE: 10/24/01  
LEVEL

EXAMINER: NA NA DATE: NA  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



45° - RESTRICTED SCAN 2,5,7,8 DUE TO WELDED SUPPORTS.

45° - RESTRICTED SCAN 5 DUE TO INLET AND OUTLET 2" LINES.

REDUCED CODE COVERAGE BY 43%.

KEWAUNEE NUCLEAR POWER PLANT REVIEW: Phillip C. Butkus DATE: October 29, 2001

AUTHORIZED NUCLEAR INSERVICE INSPECTOR REVIEW: Roger McQuinn DATE: 10/29/01



**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: CHARGING PUMP PULSATION DAMPENERS APD-1A, APD-1B AND APD-1C

DRAWING NO.: M-1210

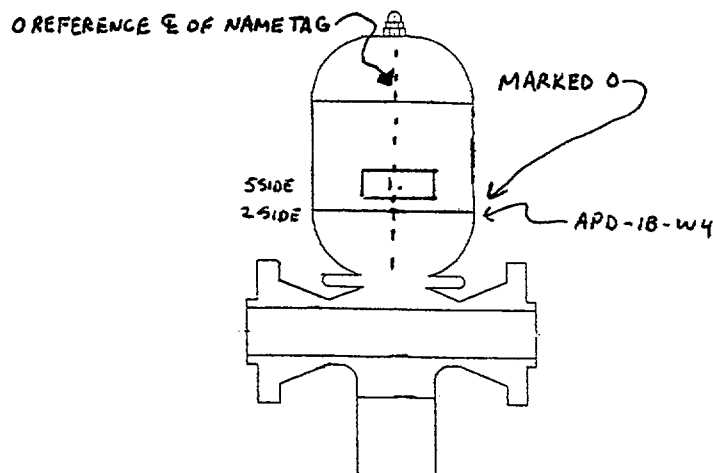
COMPONENT IDENTIFICATION: APD-1B-W4 PROCEDURE: NEP-15.41 REVISION: A

ULTRASONIC: X LIQUID PENETRANT: \_\_\_\_\_ MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: \_\_\_\_\_

EXAMINER: MT Kilgus II DATE: 10-18-01  
LEVEL

EXAMINER: TIM COBURN II DATE: 10/18/01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



1. NAME TAG - LIMITS 45° SCANS 5, 7, 8 ON S SIDE FOR 5½"  
NAME TAG IS LOCATED 4" TO 9½" FROM MARKED O  
AND ¼" FROM E ON S SIDE AND IS WELDED TO  
CHARGING PUMP PULSATION DAMPENER 1B

REDUCED CODE COVERAGE 8.6%

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bukos DATE: October 22, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Anger M. J. J. DATE: 10-22-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: SEAL WATER INJECTION FILTERS AFSI-1A AND AFSI-1B

DRAWING NO.: M-1212

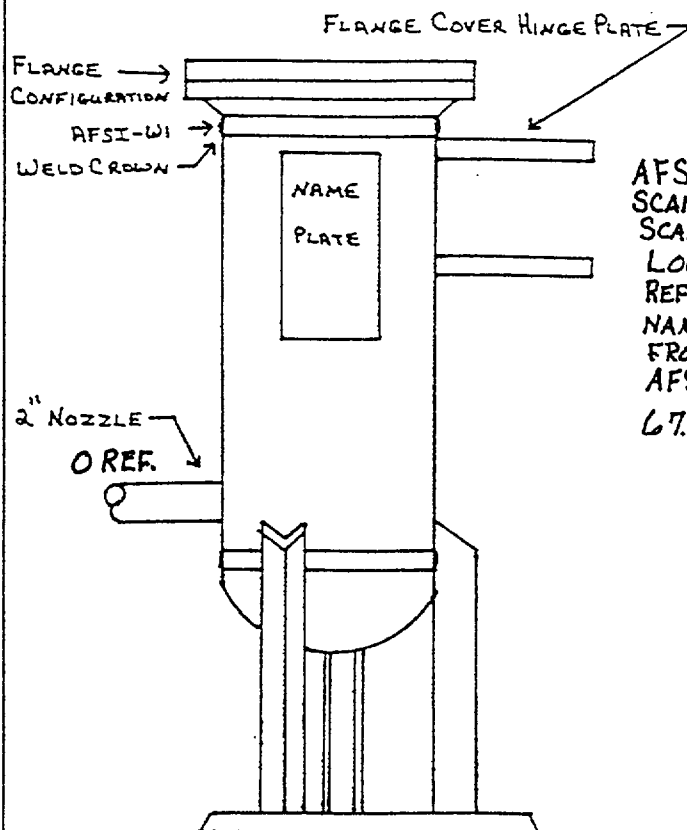
COMPONENT IDENTIFICATION: AFSI-W1 PROCEDURE: NEP-15.41 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: Brian A. Knott II DATE: 10/26/01  
LEVEL

EXAMINER: NA NA DATE: NA  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



AFSI-W1 - FLANGE CONFIGURATION LIMITS 5,7+8  
SCANS FOR 45° RL. WELD CROWN LIMITS 2,7+8  
SCANS FOR 45° RL. FLANGE COVER HINGE PLATE  
LOCATED FROM 16.0" CW TO 19.0" CW FROM 0  
REFERENCE LIMITS 2,7+8 SCANS FOR 45° RL.  
NAME PLATE LOCATED FROM 24.0" CW TO 28.0" CW  
FROM 0 REFERENCE 0.9" FROM TOE OF WELD  
AFSI-W1 LIMITS 2 SCAN FOR 45° RL.  
67.06% PROCEDURE COVERAGE NOT OBTAINED.

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillips C. Bukes DATE: November 1, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Roger M. M... DATE: 11-2-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: SAFETY INJECTION PUMPS APSI-1A AND APSI-1B

DRAWING NO.: m-1707

COMPONENT IDENTIFICATION: APSI-1A-S3  
APSI-1A-S1  
APSI-1A-S4 PROCEDURE: NEP NO. 15.7 REVISION: ORIG

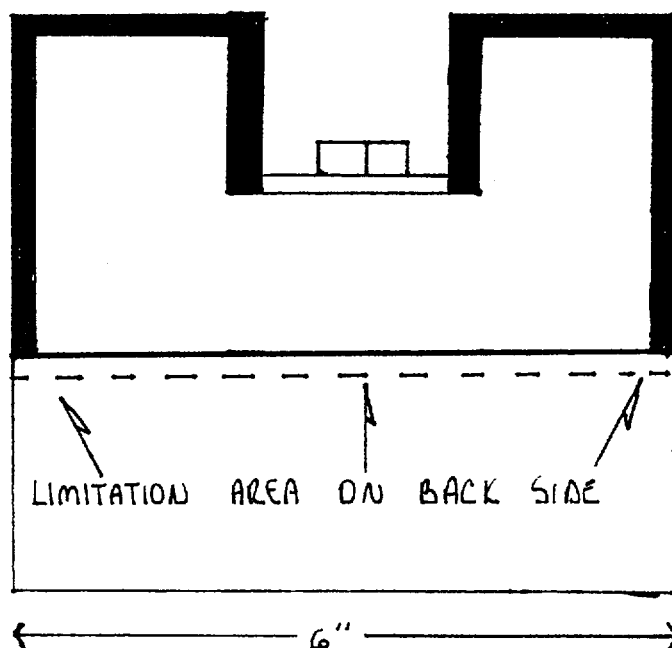
ULTRASONIC: \_\_\_\_\_ LIQUID PENETRANT: \_\_\_\_\_ MAGNETIC PARTICLE: X VISUAL: \_\_\_\_\_

EXAMINER: Travis Thomas II DATE: 10-27-01  
LEVEL

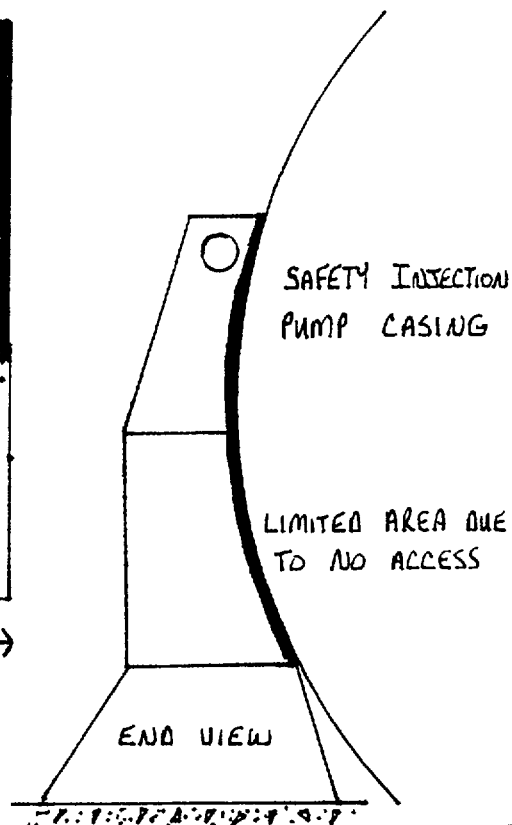
EXAMINER: NA DATE: NA  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

TYP. OF 3 SUPPORTS EXAMINED



AREA NOT EXAMINED = 14.6%



KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip E. Bakes

DATE: October 29, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Arjen Mijnen

DATE: 10/30/01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: MAIN STEAM STEAM GENERATOR 1B

DRAWING NO.: ISIM-872

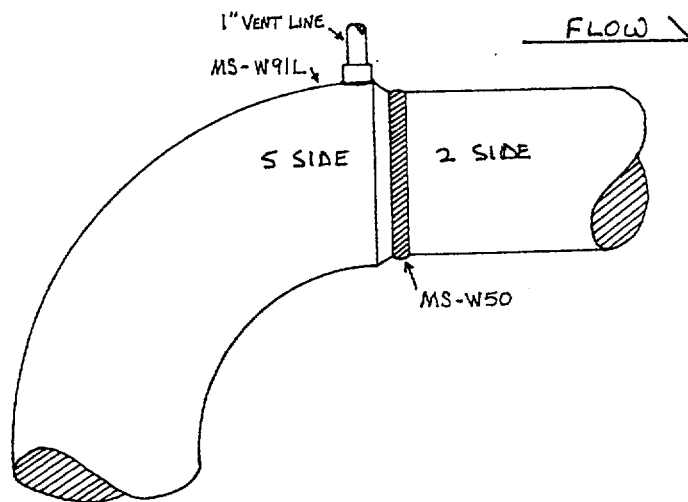
COMPONENT IDENTIFICATION: MS-W50 PROCEDURE: NEP-15.40 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: TIM COBURN *[Signature]* II DATE: 10/12/01  
LEVEL

EXAMINER: *[Signature]* II DATE: 10/12/01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



45° - NO SCAN 5,7,8 ON S SIDE DUE TO O.D. CONFIGURATION.  
REDUCED CODE COVERAGE BY 8%.

KEWAUNEE NUCLEAR POWER PLANT REVIEW: Phillip C. Bukey DATE: October 19, 2001

AUTHORIZED NUCLEAR INSERVICE INSPECTOR REVIEW: *[Signature]* DATE: 10-19-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: MAIN STEAM STEAM GENERATOR 1B

DRAWING NO.: ISIM-872

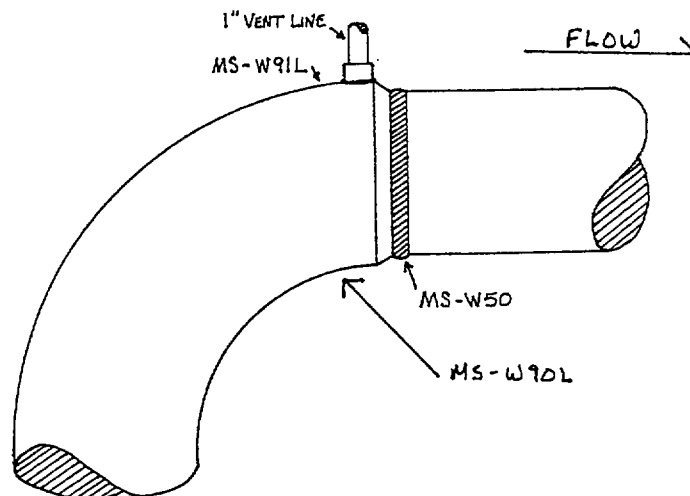
COMPONENT IDENTIFICATION: MS-W90L  
MS-W91L PROCEDURE: NEP-15.40 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: TIM COBURN [Signature] II DATE: 10/12/01  
LEVEL

EXAMINER: [Signature] II DATE: 10/12/01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



45° - LIMITED 2,5,7,8 SCAN ON WELD MS-W90L DUE TO 1" ELBOW TAPER.  
SCANS 2,5,7,8 LIMITED BY 3" ON WELD MS-W91L DUE TO  
1" VENT LINE.

WELD MS-W90L REDUCED CODE COVERAGE BY 22%.

WELD MS-W91L REDUCED CODE COVERAGE BY 63%.

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Butko DATE: October 18, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: [Signature] DATE: 10-19-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: MAIN STEAM STEAM GENERATOR 1B

DRAWING NO.: ISIM - 872

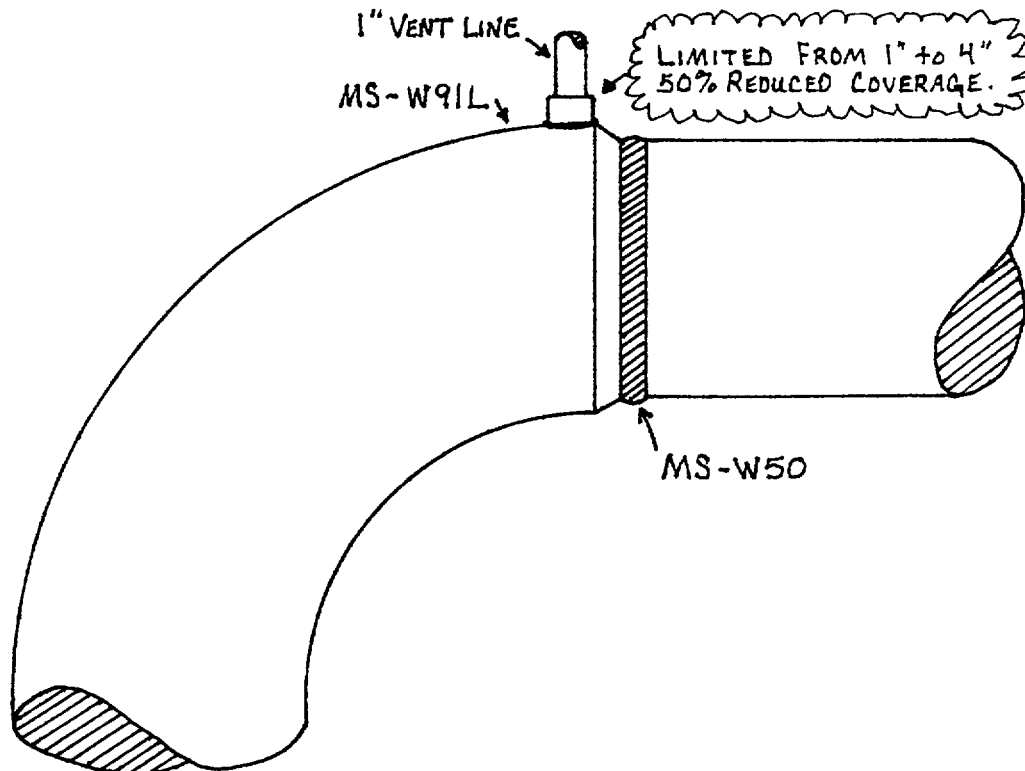
COMPONENT IDENTIFICATION: MS-W91L PROCEDURE: NEP No. 15.7 REVISION: ORIG

ULTRASONIC:        LIQUID PENETRANT:        MAGNETIC PARTICLE: X VISUAL:       

EXAMINER: Brian A. Kott II DATE: 10/11/01  
LEVEL

EXAMINER: Simon Crothers II DATE: 10/11/01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bukes DATE: October 13, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Logan Metzger DATE: 10-15-01

REV.: ORIG.

**WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT  
ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND  
VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

SYSTEM OR COMPONENT: SI - FROM CNTMT PEN. 28 E TO 2" BRANCH CONN ON 6" HDR TO REACTOR

DRAWING NO.: 151M-937-25H2

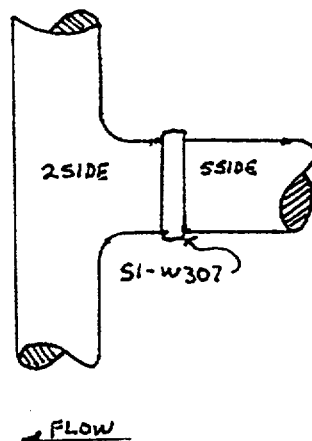
COMPONENT IDENTIFICATION: SI-W307 PROCEDURE: NEP-15.41 REVISION: A

ULTRASONIC: X LIQUID PENETRANT: \_\_\_\_\_ MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: \_\_\_\_\_

EXAMINER: TIM COBURN II DATE: 10/16/01  
LEVEL

EXAMINER: M. J. Hilpeh II DATE: 10-16-01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



45°, 70° - NO SCAN 2 DUE TO TEE CONFIGURATION

REDUCED CODE COVERAGE 47.5%.

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bures DATE: October 19, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Lynn M. Quinn DATE: 10-19-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: SI - FROM CNTMT PEN. 10 TO REACTOR FROM ACMTR 1B TO LOOP B COLD LEG

DRAWING NO.: 151M-938-25H1

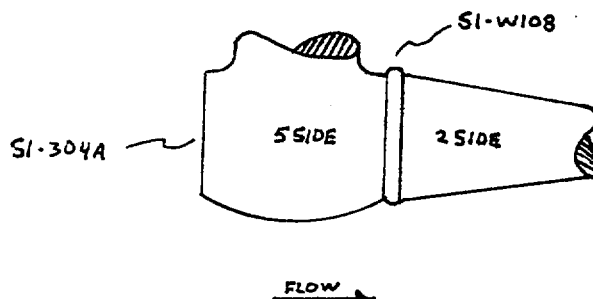
COMPONENT IDENTIFICATION: SI-W108 PROCEDURE: NEP-15.41 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: MSH/Alpala II DATE: 10-30-01  
LEVEL

EXAMINER: Timothy Kahan II DATE: 10-30-01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



NO SCANS 5, 7, & 8 ON 5 SIDE DUE TO VALVE SI-304A CONFIGURATION  
CODE COVERAGE REDUCED BY 50%

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bures DATE: November 2, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Lynn M. Winters DATE: 11-2-01



**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: REACTOR COOLANT - FROM PRESSURIZER TO PRESSURIZER RELIEF TANK

DRAWING NO.: ISIM-940-2

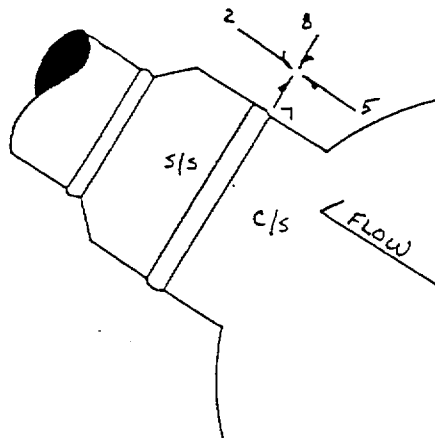
COMPONENT IDENTIFICATION: PR-W16 DM PROCEDURE: NEP-15.14 REVISION: ORIG.

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: TIM COBURN [Signature] II DATE: 10/25/01  
LEVEL

EXAMINER: [Signature] II DATE: 10-25-01  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



PERCENTAGE OF CODE/PROCEDURE LIMITATION: 50%

ACTUAL PART THICKNESS: 1.2"

CAL. BLOCK (WPS-17) THICKNESS: 0.719"

ADEQUATE SCREEN RANGE ACHIEVED UTILIZING WPS-17

45° I.D. ROLL AT 6.2 DIVISIONS.

60° I.D. ROLL AT 8.1 DIVISIONS.

0°, 45°, 60° - NO SCAN 5 DUE TO MATERIAL CONFIGURATION.

SCAN 2 LIMITED DUE TO DD TAPER.

SCAN 7, 8 LIMITED ON S SIDE DUE TO MATERIAL CONFIGURATION.

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bueker DATE: October 29, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: [Signature] DATE: 10/29/01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: RHR-From RC Loops A+B Hot Legs to CNTMT Pen. 9+ to CNTMT Sump B

DRAWING NO.: ISIM-957-1 SH1

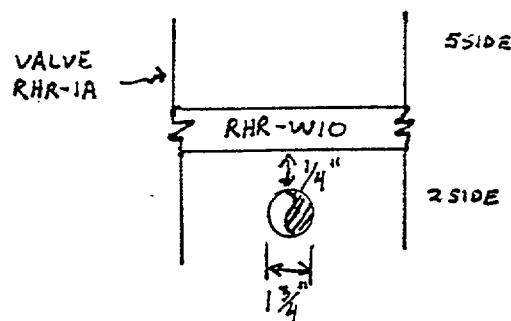
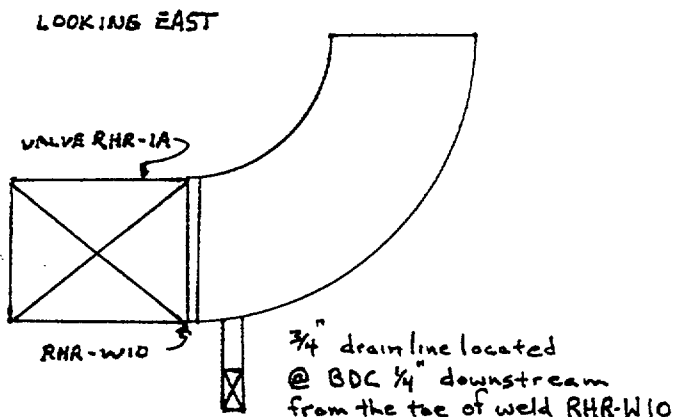
COMPONENT IDENTIFICATION: RHR-W10 PROCEDURE: NEP-15.41 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: Timothy Fahan II DATE: 10-11-01  
 LEVEL

EXAMINER: M. Hilgert II DATE: 10-11-01  
 LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



LOOKING UP

- 45° - No scans 5, 7+8 on valve side due to configuration  
 - Scan 2 limited due to drain line
- 60° - No scan 5 on valve side due to configuration  
 - Scan 2 limited due to drain line

Reduced Code Coverage 63%.

KEWAUNEE NUCLEAR  
 POWER PLANT REVIEW: Phillip C. Baker DATE: October 18, 2001

AUTHORIZED NUCLEAR  
 INSERVICE INSPECTOR REVIEW: Lynn McGinnis DATE: 10-18-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: RHR - FROM RC LOOPS A & B HOT LEGS TO CNTMT PEN. 9 & TO CNTMT SUMP B

DRAWING NO.: 151M-957-1SH1

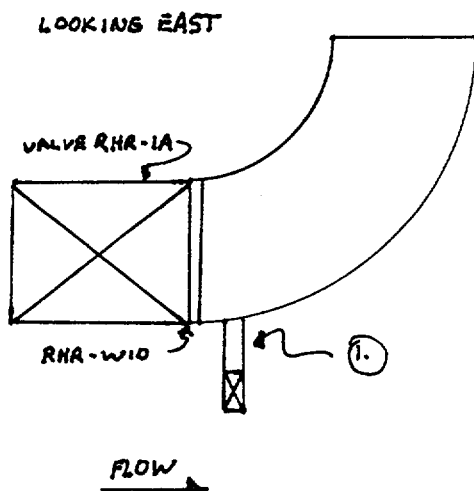
COMPONENT IDENTIFICATION: RHR-W10 PROCEDURE: NEP NO. 15.6 REVISION: ORIG

ULTRASONIC: \_\_\_\_\_ LIQUID PENETRANT: X MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: \_\_\_\_\_

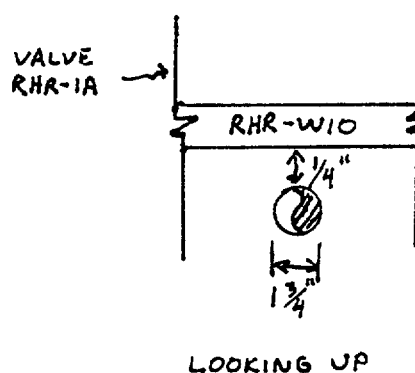
EXAMINER: MT Hildebrand II DATE: 10-10-01  
LEVEL

EXAMINER: NA \_\_\_\_\_ DATE: \_\_\_\_\_  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



1. DRAIN LINE LOCATED @ BOTTOM  
DEAD CENTER  $\frac{1}{4}$ " DOWN STREAM  
FROM TOE OF WELD RHR-W10  
REDUCED CODE COVERAGE 1%.



KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Dukes DATE: October 13, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Roger M. M... .. DATE: 10-13-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: RHR - FROM RC LOOPS A & B HOT LEGS TO  
CNTMT PEN 9 & TO CNTMT SUMP B

DRAWING NO.: ISIM-957-1SH2

COMPONENT IDENTIFICATION: RHR - W48 PROCEDURE: NEP No. 156 REVISION: ORIG

ULTRASONIC: \_\_\_\_\_ LIQUID PENETRANT: X MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: \_\_\_\_\_

EXAMINER: Arle Jensen ARLEN JENSEN II DATE: 9-29-01  
LEVEL

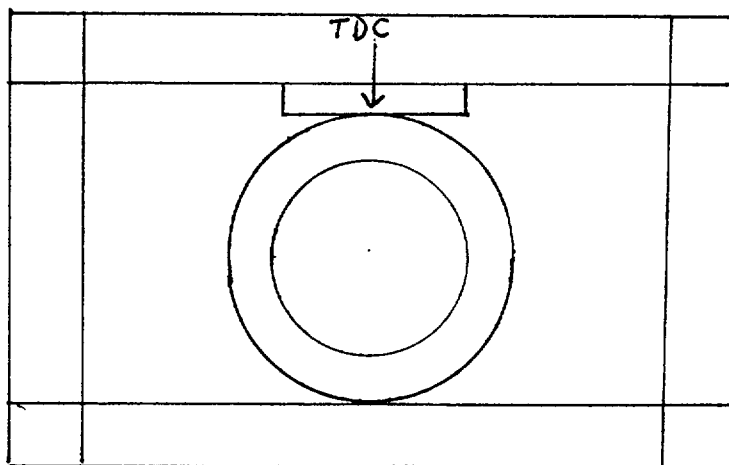
EXAMINER: NA NA DATE: NA  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

NO EXAM FROM 1.5" CCW TO 1.5" CW AND 14.5" TO 18.5" FROM TDC, DUE TO  
BOX RESTRAINT INTERFERENCE

REDUCED EXAM COVERAGE IS 20%.

34" CIRCUMFERENCE 7" REDUCED COVERAGE



KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bures DATE: October 1, 2001  
AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Roger Trueman DATE: 10-1-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: RHR- FROM CNTMT SUMP B AND ANCHORS THRU RHR PUMP 1A  
TO ANCHOR ON DISCH. LINE.

DRAWING NO.: ISIM-958-ISH1

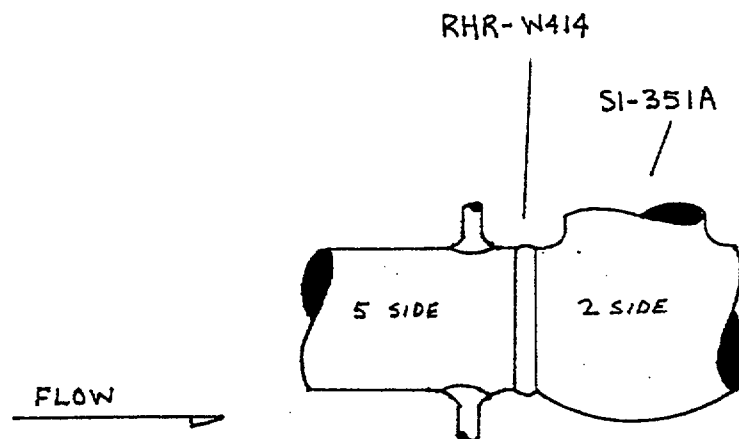
COMPONENT IDENTIFICATION: RHR-W414 PROCEDURE: NEP-15.41 REVISION: A

ULTRASONIC: X LIQUID PENETRANT: \_\_\_\_\_ MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: \_\_\_\_\_

EXAMINER: MBH/ghb II DATE: 10-24-01  
LEVEL

EXAMINER: NA NA DATE: NA  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



NO SCANS 2,7, AND 8 ON 2 SIDE DUE TO VALVE CONFIGURATION.

45° AND 70° SCAN 5 LIMITED FOR 2" AT TDC AND FOR 2" AT BDC DUE TO WELD O'LETS.  
WELD O'LETS LOCATED 3/4" FROM TOE OF WELD AT T.D.C. AND 3/4" FROM TOE  
OF WELD AT B.D.C.

CODE COVERAGE REDUCED BY 59%.

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bukes DATE: October 25, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Ryan Matyuni DATE: 10-26-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: FEEDWATER FROM ANCHORED ELL TO STEAM GEN. 1A

DRAWING NO.: ISIM-970

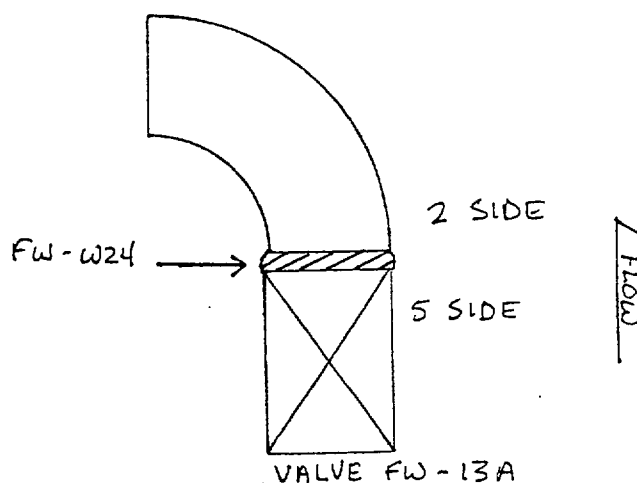
COMPONENT IDENTIFICATION: FW-W24 PROCEDURE: NEP-15.40 REVISION: A

ULTRASONIC: X LIQUID PENETRANT: \_\_\_\_\_ MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: \_\_\_\_\_

EXAMINER: TIM COBURN IT DATE: 10/20/01  
LEVEL

EXAMINER: NA NA DATE: NA  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



45° - SCAN 5, 7, 8 RESTRICTED DUE TO VALVE CONFIGURATION.

60° - SCAN 5 RESTRICTED DUE TO VALVE CONFIGURATION.

REDUCED CODE COVERAGE BY 8%.

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bures DATE: October 27, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Loren McGinnis DATE: 11-29-01

REV.: ORIG.

**WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT  
ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND  
VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

SYSTEM OR COMPONENT: FEEDWATER FROM ANCHORED ELL TO STM GEN. 1B

DRAWING NO.: ISIM-971

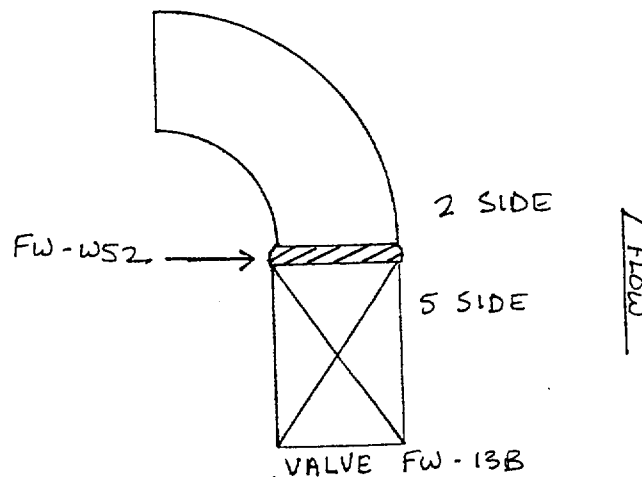
COMPONENT IDENTIFICATION: FW-WS2 PROCEDURE: NEP-15.4 REVISION: A

ULTRASONIC: X LIQUID PENETRANT: \_\_\_\_\_ MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: \_\_\_\_\_

EXAMINER: TIM COBURN [Signature] II DATE: 10/20/01  
LEVEL

EXAMINER: NA NA DATE: NA  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



45° - SCAN 5, 7, 8 RESTRICTED DUE TO VALVE CONFIGURATION.

60° - SCAN 5 RESTRICTED DUE TO VALVE CONFIGURATION.

REDUCED CODE COVERAGE BY 8%.

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip E. Butas DATE: October 27, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Roger M. Quinn DATE: 10/29/01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: FEEDWATER FROM ANCHORED ELL TO STEAM GEN. 1 B

DRAWING NO.: ISIM-971

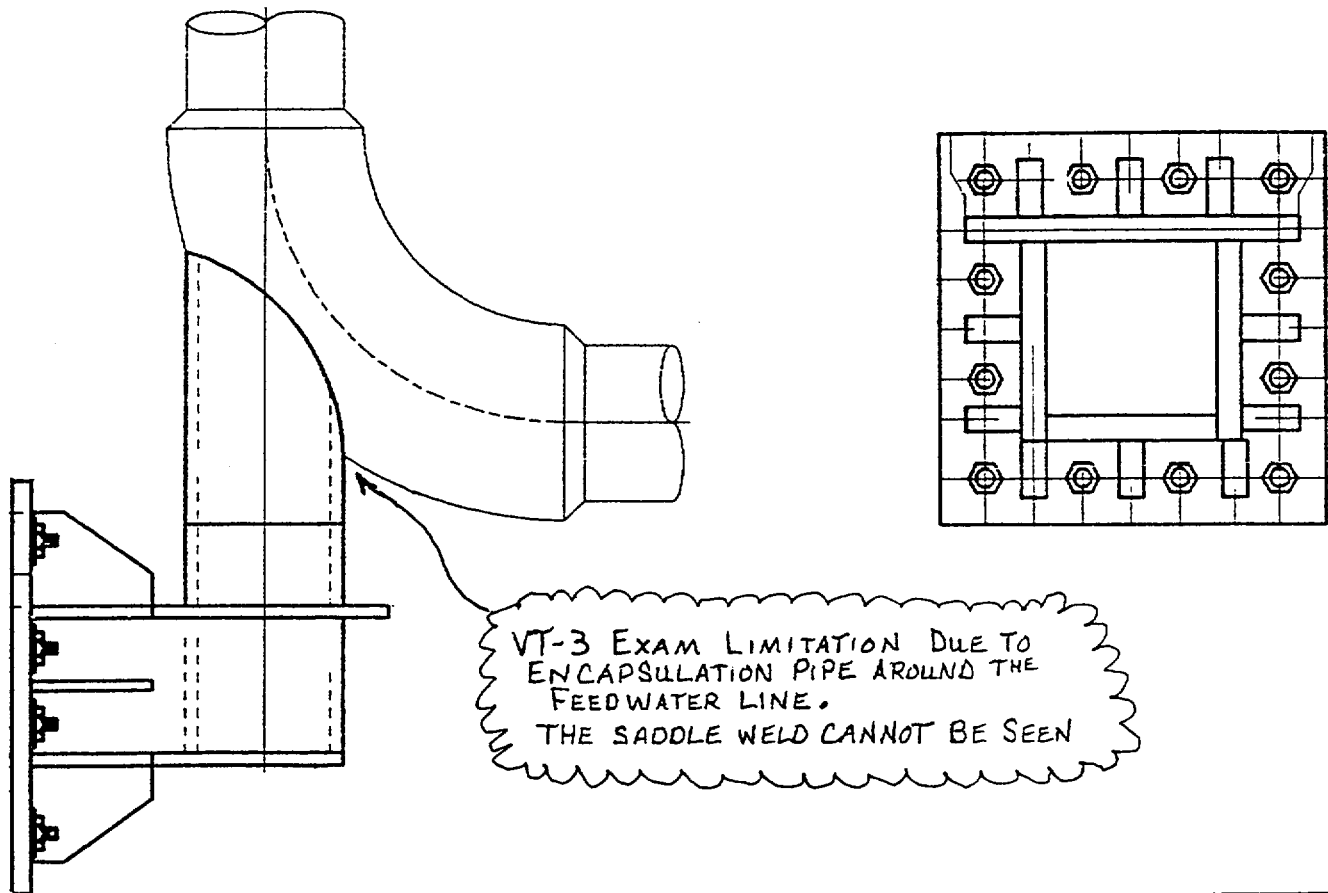
COMPONENT IDENTIFICATION: FDW-H170 PROCEDURE: NEP NO. 15.5 REVISION: ORIG

ULTRASONIC: \_\_\_\_\_ LIQUID PENETRANT: \_\_\_\_\_ MAGNETIC PARTICLE: \_\_\_\_\_ VISUAL: X

EXAMINER: Brian A. Knott II DATE: 10/17/01  
LEVEL

EXAMINER: NA NA DATE: N/A  
LEVEL

SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.



KEWAUNEE NUCLEAR POWER PLANT REVIEW: October 18, 2001 Phillip C. Bucas DATE: October 18, 2001

AUTHORIZED NUCLEAR INSERVICE INSPECTOR REVIEW: Lynne M. M... .. DATE: 10-18-01



**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: REACTOR COOLANT PIPING LOOP A

DRAWING NO.: ISIM-1703

COMPONENT IDENTIFICATION: RC-W76DM PROCEDURE: NEP-15.45 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: J. M. R. Bly III DATE: 6-19-01  
LEVEL

EXAMINER: Jeff R III DATE: 06/19/01  
LEVEL

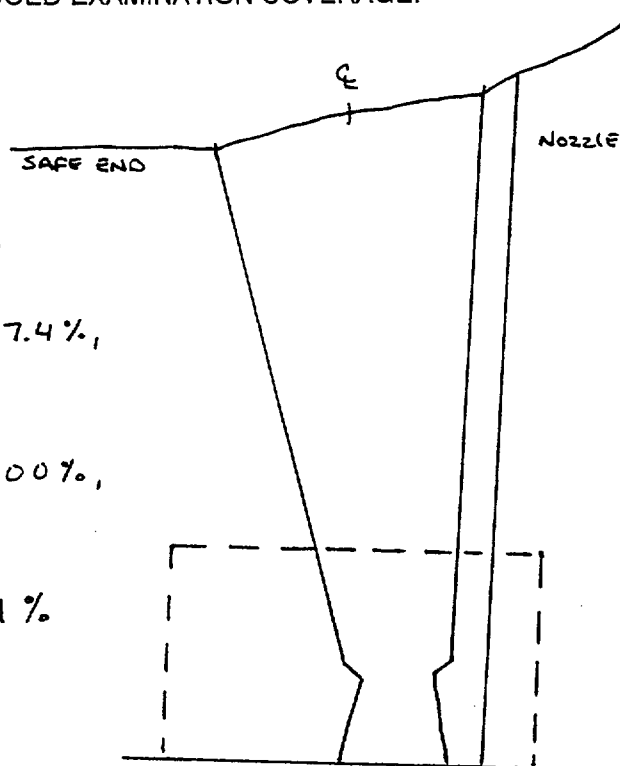
SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

NOZZLE CONFIGURATION LIMITS COVERAGE WITH  
0°, 45° SCAN 2, 5, 7, AND 8; 60° SCAN 2, 5, 7, AND 8

SAFE END SIDE COVERAGE NOT OBTAINED: 17.4%,  
DUE TO NOZZLE CONFIGURATION.

NOZZLE SIDE COVERAGE NOT OBTAINED: 100%,  
DUE TO NOZZLE CONFIGURATION.

TOTAL COVERAGE NOT OBTAINED: 38.1%



KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bukes DATE: June 19, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Roger McQuinn DATE: 6-20-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: REACTOR COOLANT PIPING LOOP A

DRAWING NO.: ISM-1703

COMPONENT IDENTIFICATION: RC-W77DM PROCEDURE: NEP-15.45 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: J. M. P. Bly III DATE: 6-19-01  
LEVEL

EXAMINER: J. B. R. III DATE: 06/19/01  
LEVEL

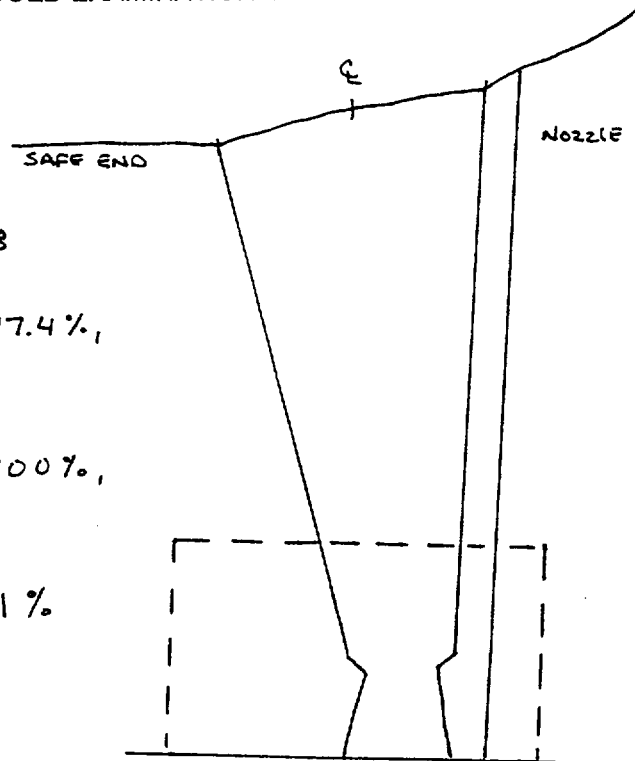
SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

NOZZLE CONFIGURATION LIMITS COVERAGE WITH  
0°/45° SCAN 2, 5, 7, AND 8; 60° SCAN 2, 5, 7, AND 8

SAFE END SIDE COVERAGE NOT OBTAINED: 17.4%,  
DUE TO NOZZLE CONFIGURATION.

NOZZLE SIDE COVERAGE NOT OBTAINED: 100%,  
DUE TO NOZZLE CONFIGURATION.

TOTAL COVERAGE NOT OBTAINED: 38.1%



KEWAUNEE NUCLEAR POWER PLANT REVIEW: Phillip C. Bakes DATE: June 19, 2001

AUTHORIZED NUCLEAR INSERVICE INSPECTOR REVIEW: Roger Morgan DATE: 6-20-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: REACTOR COOLANT PIPING LOOP B

DRAWING NO.: 151M-1704

COMPONENT IDENTIFICATION: RC-W78DM PROCEDURE: NEP-15.45 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: Toll P. Bly III DATE: 6-19-01  
LEVEL

EXAMINER: Self III DATE: 06/19/01  
LEVEL

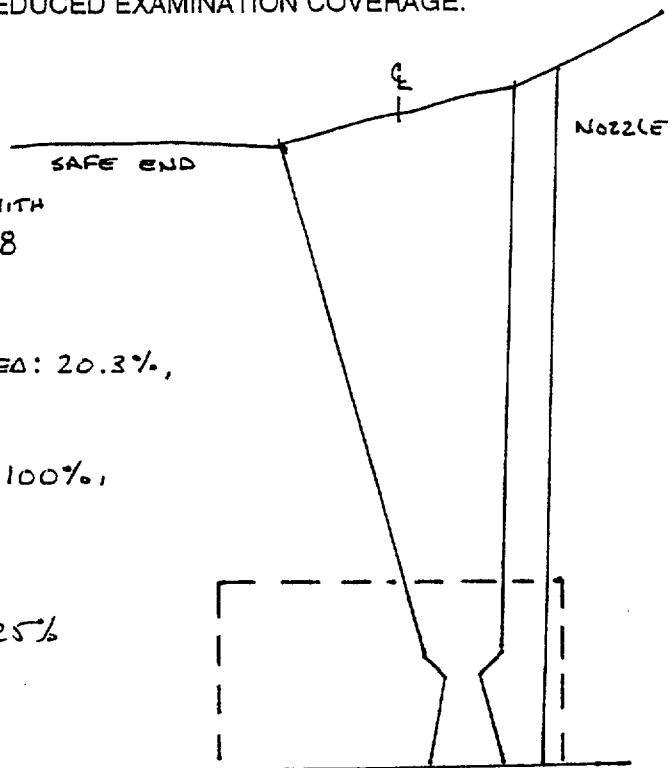
SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

NOZZLE CONFIGURATION LIMITS COVERAGE WITH  
0°, 45° SCAN 2, 5, 7, AND 8; 60° SCAN 2, 5, 7, AND 8

SAFE END SIDE COVERAGE NOT OBTAINED: 20.3%,  
DUE TO NOZZLE CONFIGURATION.

NOZZLE SIDE COVERAGE NOT OBTAINED: 100%,  
DUE TO NOZZLE CONFIGURATION.

TOTAL COVERAGE NOT OBTAINED: 40.25%



KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Buker

DATE: June 19, 2001

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Roger M. Mynier

DATE: 6-20-01

**WISCONSIN PUBLIC SERVICE CORPORATION**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**ULTRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND**  
**VISUAL EXAMINATION LIMITATION TO EXAMINATION RECORD**

REV.: ORIG.

SYSTEM OR COMPONENT: REACTOR COOLANT PIPING LOOP B

DRAWING NO.: 151M-1704

COMPONENT IDENTIFICATION: RC-W79DM PROCEDURE: NEP-15.45 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: J. P. Blf III DATE: 6-19-01  
LEVEL

EXAMINER: Jeff R III DATE: 06/19/01  
LEVEL

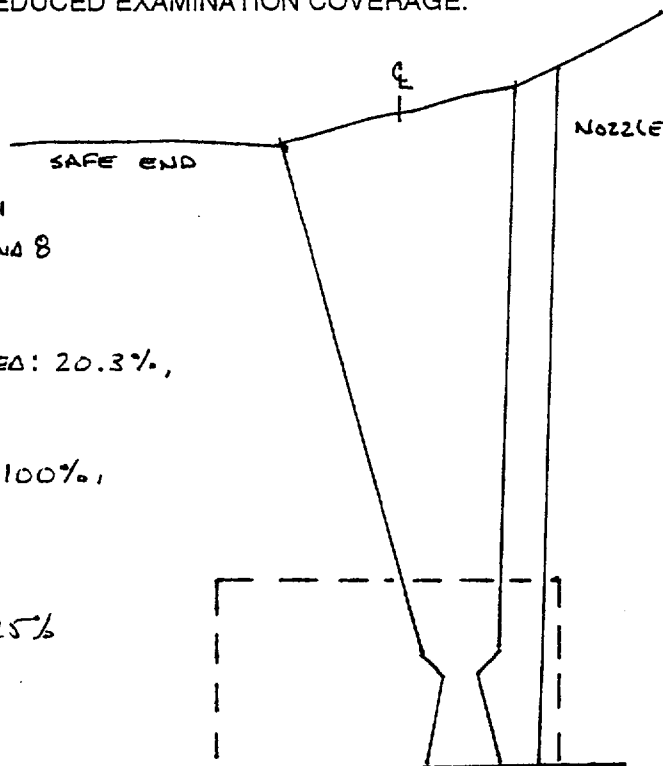
SKETCH TO PROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AND PERCENTAGE OF REDUCED EXAMINATION COVERAGE.

NOZZLE CONFIGURATION LIMITS COVERAGE WITH  
D°, 45° SCAN 2, 5, 7, AND 8; 60° SCAN 2, 5, 7, AND 8

SAFE END SIDE COVERAGE NOT OBTAINED: 20.3%,  
DUE TO NOZZLE CONFIGURATION.

NOZZLE SIDE COVERAGE NOT OBTAINED: 100%,  
DUE TO NOZZLE CONFIGURATION.

TOTAL COVERAGE NOT OBTAINED: 40.25%



KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillips E. Bukes DATE: June 19, 2001  
AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Ryan McGuire DATE: 6-20-01