



Kewaunee Nuclear Power Plant  
N490, State Highway 42  
Kewaunee, WI 54216-9511  
920-388-2560

*Operated by Nuclear  
Management Company, LLC*



August 31, 2000

10CFR50.55a

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

Ladies and Gentlemen:

Docket 50-305  
Operating License  
Kewaunee Nuclear Power Plant  
2000 Inservice Inspection (ISI) Summary Report

As required by ASME Boiler and Pressure Vessel Code, Section XI; Code of Federal Regulation 10CFR50.55a; and Wisconsin Administrative Code, Subchapter V ILHR 41.55(3) and ILHR 41.56; various ISI examinations were performed prior to the year 2000 Refueling Outage (March 16, 1999 through June 15, 1999), during the year 2000 Refueling Outage (April 22, 2000 through June 2, 2000; i.e., closing of G1), and following the year 2000 Refueling Outage June 16, 2000. This letter transmits the inservice inspection summary report as required by paragraph IWA-6230 of Section XI.

Two separate ASME Section XI inservice examination programs are implemented at the KNPP. One program is for pressure retaining piping/vessel and component supports and the other program for the metal containment. The year 2000 refueling outage constituted the second inspection year of the second period of the third interval for the piping/vessel and component support program and the second inspection year of the first interval for the metal containment program. Examinations for the piping/vessel and component support program were performed in accordance with the ASME Boiler and Pressure Vessel Code Section XI 1989 Edition. Examinations for the metal containment program were performed in accordance with the 1992 Edition up to and including the 1992 Addenda of Section XI of the ASME Boiler and Pressure Vessel Code. These requirements were implemented in accordance with the "Kewaunee Nuclear Power Plant Third Ten-Year Inservice Inspection (ISI) Program 1994-2004," "Kewaunee Nuclear Power Plant First 10-Year Inservice Inspection Class MC (ISI) Program 1996-2006," Plant Technical Specifications, and nondestructive examination procedures.

Various Class 1, Class 2, Class 3, and Class MC Components and their supports were examined and included:

1. Reactor Vessel Upper and Lower Internals
2. Steam Generator Nozzle Inside Radius Sections, Tubesheet to Head Weld, Nozzle to Safe End Butt Weld, Tubesheet to Shell Weld and Shell Circumferential Weld

A047

3. Steam Generator Feedwater Nozzle to Pipe Welds
4. Class 1 Piping Socket Weld
5. Class 2 Piping Integrally Welded Attachment
6. Steam Generator Feedwater Nozzle to Pipe Welds
7. Class 1, Class 2 and Class 3 Piping and Component Supports and Hangers
8. Class 1 and Class 2 Reactor Vessel Conoseal Bolting, Pressurizer Manway Bolting, Flange Bolting and Valve Bonnet Bolting
9. Class 1 System Leakage Test
10. Class 2 and Class 3 System Inservice and Functional System Pressure Tests
11. Steam Generator Tubes
12. Reactor Building Containment Vessel Accessible Surface Areas, Welds, Seals, Gaskets, Containment Penetration Bellows and Airlocks

In addition, the following examinations were performed in excess of ASME Boiler and Pressure Vessel Code Section XI 1989 Edition requirements and included:

1. Radiography of Steam Generator 1A and 1B Feedwater Nozzle-to-Pipe and Pipe-to-Pipe Weld for verification of integrity and detection of cracking.
2. Portions of the service water system were radiographed for wall loss, pits, nodules, and sand, mud or other sediments.
3. Balance of plant piping subject to erosion/corrosion was examined by radiographic, ultrasonic, and visual techniques.
4. Reactor vessel incore thimbles were eddy current inspected in response to U.S. Nuclear Regulatory Commission Bulletin 88-09.

The ASME Boiler and Pressure Vessel Code Section XI mandated examinations and examinations performed in excess of Section XI requirements resulted in the following indications being recorded on the basis of Inservice Inspection Procedure recording criteria. This criteria is generally more restrictive than ASME Boiler and Pressure Vessel Code Section XI 1989 Edition and 1992 Edition up to and including 1992 Addenda acceptance standards. The following table provides a summary of the recordable indications.

TYPE OR LOCATION OF RECORDABLE INDICATION (RI)	METHOD	NO. OF RI'S
Class 2 Feedwater Piping	Ultrasonic (UT)	2 Welds
Class 2 Feedwater Piping	Radiography (RT)	1 Weld
Component Supports and Hangers	Visual (VT-3)	2 Supports
Reactor Vessel Conoseal Bolting	Visual (VT-3)	1 Conoseal
Valve Bonnet Bolting	Visual (VT-3)	8 Valves
System Pressure Tests	Visual (VT-2)	31 Items
Reactor Building Containment Vessel Equipment Door	Visual (VT-3)	1 Inner Gasket & 1 Outer Gasket
Reactor Building Containment Vessel Penetration No. 41E O-Ring Seals	Appendix J Type B Test	1

Disposition of Class 1, 2, and 3 indications have been completed in accordance with the rules of ASME Boiler and Pressure Vessel Code Section XI 1989 Edition for Class 1, Class 2, and Class 3 Components and ASME Boiler and Pressure Vessel Code Section XI 1992 Edition up to and including 1992 Addenda for Class MC Components. Applicable codes, standards, and engineering criteria were used to disposition indications associated with the non-code required examinations. Recordable indications have been dispositioned as summarized below:

1. Recordable indications, previously noted in 1995, 1996-1997 and 1998, were recorded during automated ultrasonic and radiography examinations of the Class 2 feedwater nozzle-to-pipe welds FW-W29 and FW-W57. Reexaminations during the 2000 refueling outage were performed to satisfy Kewaunee Nuclear Power Plant Nuclear Regulatory Commission commitment tracking No. 95-046. The indications recorded on FW-W29 and FW-W57 were accepted through analytical evaluation as permitted by ASME Boiler and Pressure Vessel Code Section XI 1989 Edition, Paragraphs IWB-3142.4, IWB-3600 and IWC-3600. The analytical evaluation is documented in Westinghouse Electric Corporation WCAP-14359 Rev. 2, "Structural Integrity Evaluation for the Feedwater Nozzle to Pipe Weld Region of the Kewaunee Nuclear Plant," dated October 1998, Structural Integrity Evaluation for the Feedwater Nozzle to Pipe Weld Region Kewaunee Nuclear Power Plant 1998 Refueling Outage, and Structural Integrity Evaluation for the Feedwater Nozzle to Pipe Weld Region 2000 Refueling Outage Kewaunee Nuclear Power Plant.

As required by ASME Boiler and Pressure Vessel Code Section XI, 1989 Edition Paragraph IWC-2420, "Successive Inspections" Feedwater Nozzle to Pipe Welds FW-W29 and FW-57 will be ultrasonically examined with Automated Equipment and by Radiographic examination methods during the 2001 Refueling Outage if the steam generators are not replaced at that time.

2. Visual indications recorded on reactor vessel conoseal bolting, valve bonnet bolting, piping supports and hangers, during system pressure tests and Appendix J tests were: (1) evaluated and accepted or (2) repaired, re-examined and accepted by: Wisconsin Public Service Corporation Maintenance, Quality Control, Engineering and Technical Support, and Inservice Inspection personnel and reviewed by the authorized Nuclear Inservice Inspector.
3. Visual recordable indications on the reactor building containment vessel equipment door inner and outer gaskets were recorded during performance of VT-3 examinations. The recordable indications included damage and tears to the gaskets. Both the inner and outer door gaskets were replaced.
4. The 2000 refueling outage steam generator A and B tube eddy current examination, plugging and repair are summarized in the attached SP 36-084 file letter dated July 15, 2000.

The following summarizes the repairs and replacements performed following the 1998 refueling outage and during the 2000 refueling outage by grinding, buffing, filing, cutting or welding on the Class 1 and Class 2 pressure boundary. These repairs and replacements are in addition to those itemized on the attached form, "NIS-2 Owner's Reports for Repairs or Replacements."

Component	Class	Reference	Repair/Replacement Method
3/8" Swagelock Tube Fitting to RC-601B	1	XK-100-10	Cutting and Welding of Replacement Fitting
3/4" Valve SI-102A	2	XK-100-28	Cutting and Welding of Replacement Valve
3/4" Valve SI-102B	2	XK-100-28	Cutting and Welding of Replacement Valve
3/4" Valve LD-33	2	XK-100-28	Cutting and Welding of Replacement Valve
3/4" Valve SI-5A-1 and 3/4" Piping	2	XK-100-29	Welding of New Piping and Valve
3/4" Valve SI-5B-1 and 3/4" Piping	2	XK-100-29	Welding of New Piping and Valve
3/4" Valve CVC-231B	2	XK-100-36	Cutting and Welding of Replacement Valve

Examinations performed during the second outage, second 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, second period, third interval, identifying those components where limitations occurred. Attachment 7 of this report transmits NDE data sheets for the 2000 examinations which were limited by geometric, metallurgical, or design/access restrictions.

2000 Summary of Limitations for 2nd Outage, 2nd Period, 3rd Interval Inservice Inspection			
Year	Component Identification	Method of Examination	% Recorded As Not Examined and Limitation
2000	Steam Generator 1A Tubesheet to Head Circumferential Weld SG-W6	UT	9.5%: Welded Pads and Insulation Support Ring
2000	Steam Generator 1A Shell Circumferential Weld SG-W4	UT	3.7%: Welded Pads
2000	Steam Generator 1B Nozzle to Safe END Butt Weld RC-W37DM	UT	42%: O.D. Taper of Nozzle

Please find attached a copy of the following documentation which summarizes the Inservice Inspection activities and results for the Kewaunee Nuclear Power Plant 2000 Refueling Outage.

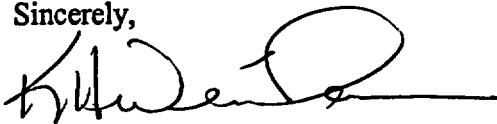
- Form NIS-1 Owner's Report for Inservice Inspections of Class 1, Class 2, and Class 3 Components (Attachment 1)
- Form NIS-1 Owner's Report for Inservice Inspections for Class MC Components (Attachment 2)
- Form NIS-2 Owner's Report for Repair or Replacements (31 Total) (Attachment 3)
- Examination Summary for Scheduled and Augmented Inservice Inspection (ISI) Program (Attachment 4)
- Examination Summary for Inservice Inspection (ISI) Class MC Program (Attachment 5)
- Steam Generator Tube Synopsis for Eddy Current Examinations and Repairs (Attachment 6)
- NDE Data Sheets for 2000 Examinations Which Were Limited by Geometric, Metallurgical, or Design/Access Restrictions. (Attachment 7)
- Summary of Reactor Vessel Incore Thimble Eddy Currents Result (Attachment 8)

The final reports for each of these examinations are on file in the QA/QC Records Vault at the Kewaunee Nuclear Power Plant. These records are available for review as deemed necessary. If you would desire a copy of these reports, please contact the Plant Manager at 920-388-8222, and a copy will be forwarded to you upon request.

Additional Comments

The next Refueling Outage at the Kewaunee Nuclear Power Plant is tentatively scheduled for September 15, 2001 through November 15, 2001.

Sincerely,



Kenneth H. Weinbauer  
General Manager-Kewaunee

PEB/CAT

Attach.

cc - U.S. NRC - Region III (w/o attach)  
U.S. NRC - Senior Resident Inspector (w/o attach)

**ATTACHMENT 1**

**Letter from K. H. Weinbauer (NMC)**

**To**

**Document Control Desk (NRC)**

**Dated**

**August 31, 2000**

**FORM NIS-1 Owner's Report for Inservice Inspections of**

**Class 1, Class 2, Class 3 Components**

**FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS  
AS REQUIRED BY THE PROVISIONS OF THE ASME CODE RULES**

- 1. OWNER - WISCONSIN PUBLIC SERVICE CORPORATION, 700 NORTH ADAMS,  
P.O. BOX 19001, GREEN BAY, WISCONSIN 54307- 9001**
- 2. PLANT - KEWAUNEE, N490 HIGHWAY 42, KEWAUNEE, WISCONSIN 54216-9511**
- 3. PLANT UNIT - NO. 1**
- 4. OWNER CERTIFICATE OF AUTHORIZATION - N/A**
- 5. COMMERCIAL SERVICE DATE - JUNE 16, 1974**
- 6. NATIONAL BOARD NUMBER FOR UNIT - N/A**
- 7. COMPONENTS INSPECTED -**

<u>COMPONENT OR APPURTENANCE</u>	<u>MANUFACTURER OR INSTALLER</u>	<u>MANUFACTURER OR INSTALLER SERIAL NO.</u>	<u>STATE OR PROVINCE NO.</u>	<u>NATIONAL BOARD NO.</u>
Reactor Vessel RV	Combustion Engineering	CE69202	U11480	21010
Pressurizer PZR	Westinghouse	1151	U11402	68-23
Steam Generator SG- 1A	Westinghouse	1141	U11400	68-28
Steam Generator SG- 1B	Westinghouse	1142	U11401	68-29
Excess Letdown Heat Exchanger AHXL-1A	Sentry	3996-5E	U11407	364
Excess Letdown Heat Exchanger AHXL-1B	Sentry	3996-6E	U11408	365
Class 1 Piping	Texas Pipe Bending	---	---	---
Reactor Coolant Pump RCP-1A	Westinghouse	1A-1-618J871- GO1	---	---
Reactor Coolant Pump RCP-1B	Westinghouse	1B-2-618J871- GO2	---	---
Residual Heat Exchanger AHRS1-1A	Joseph Oat and Sons	1817-1E	U11046	344

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<u>COMPONENT OR APPURTENANCE</u>	<u>MANUFACTURER OR INSTALLER</u>	<u>MANUFACTURER OR INSTALLER SERIAL NO.</u>	<u>STATE OR PROVINCE NO.</u>	<u>NATIONAL BOARD NO.</u>
Residual Heat Exchanger AHRS2-1B	Joseph Oat and Sons	1817-1F	U11424	345
Seal Water Heat Exchanger AHSW	Atlas	734	U11404	596
Letdown Heat Exchanger AHLD	Atlas	1206	U11405	1031
Class 2 Piping	Texas Pipe Bending	—	—	—
Residual Heat Removal Pump APRH1-1A	Byron Jackson	681N0277	—	—
Residual Heat Removal Pump APRH2-1B	Byron Jackson	681N0276	—	—
Diesel Generator AHDG-1A Cooling Water Exchangers (2)	ITT Standard Corp.	750797-01-2 & 750797-01-3	—	—
Diesel Generator AHDG-1B Cooling Water Exchanges (2)	ITT Standard Corp.	750797-01-1 & 750797-01-4	—	—



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- 7. COMPONENTS INSPECTED -**

<u>COMPONENT OR APPURTENANCE</u>	<u>MANUFACTURER OR INSTALLER</u>	<u>MANUFACTURER OR INSTALLER SERIAL NO.</u>	<u>STATE OR PROVINCE NO.</u>	<u>NATIONAL BOARD NO.</u>
Auxiliary Feedwater Pump APFM-1A Motor Driven	Pacific Pump	46573	---	---
Auxiliary Feedwater Pump APFM-1B Motor Driven	Pacific Pump	46574	---	---
Reactor Coolant Pump RCPC-1A Lube Oil Cooler	Senior	1357901	---	---
Reactor Coolant Pump RCPC-1B Lube Oil Cooler	Perfex Corporation	723701-2	---	4015
Class 3 Piping	Texas Pipe Bending	---	---	---
Containment Fan Cooler AHCF-1A	Joy Manufacturing and American Air Filter	GF14402	---	---
Containment Fan Cooler AHCF-1B	Joy Manufacturing and American Air Filter	GF14399	---	---

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- 6. NATIONAL BOARD NUMBER FOR UNIT - N/A**
- 7. COMPONENTS INSPECTED -**

<u>COMPONENT OR APPURTENANCE</u>	<u>MANUFACTURER OR INSTALLER</u>	<u>MANUFACTURER OR INSTALLER SERIAL NO.</u>	<u>STATE OR PROVINCE NO.</u>	<u>NATIONAL BOARD NO.</u>
Containment Fan Cooler AHCF-1C	Joy Manufacturing and American Air Filter	GF14401	---	---
Containment Fan Cooler AHCF-1D	Joy Manufacturing and American Air Filter	GF14400	---	---
Safety Injection Pump APSI-1A	Bingham Pump	290696	---	---
Safety Injection Pump APSI-1B	Bingham Pump	290697	---	---
Safety Injection Pump Lube Oil Cooler AHSC-1A	Thermxchanger	X10199A2	---	---
Safety Injection Pump Lube Oil Cooler AHSC-1B	Thermxchanger	X10199A3	---	---
Safety Injection Pump Heat Exchangers (2) AHSC-1A	Borg Warner	854030:854030	---	---

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<u>COMPONENT OR APPURTENANCE</u>	<u>MANUFACTURER OR INSTALLER</u>	<u>MANUFACTURER OR INSTALLER SERIAL NO.</u>	<u>STATE OR PROVINCE NO.</u>	<u>NATIONAL BOARD NO.</u>
Safety Injection Pump Heat Exchangers (2) AHSC-1B	Borg Warner	854030:854030	---	---
Residual Heat Removal Pump AHRHRP-1A Shaft Seal Heat Exchanger	Borg Warner	681N0276	---	---
Residual Heat Removal Pump AHRHR-1B Shaft Seal Heat Exchanger	Borg Warner	681N0276	---	---
Containment Spray Pump APSC-1A Gland Seal Cooler	Helliflow	49486938	---	---
Containment Spray Pump APSC-1B Gland Seal Cooler	Helliflow	6080694	---	---
Component Cooling Pump APCC-1A	Ingersoll Dresser Pump Company	08-67-309	---	---
Component Cooling Pump APCC-1B	Ingersoll Rand	0867-309	---	---

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- 5. COMMERCIAL SERVICE DATE - JUNE 16, 1974**
- 6. NATIONAL BOARD NUMBER FOR UNIT - N/A**
- 7. COMPONENTS INSPECTED -**

<u>COMPONENT OR APPURTENANCE</u>	<u>MANUFACTURER OR INSTALLER</u>	<u>MANUFACTURER OR INSTALLER SERIAL NO.</u>	<u>STATE OR PROVINCE NO.</u>	<u>NATIONAL BOARD NO.</u>
Service Water Pump APSW-1A1	Worthington Pump	VTP27738	---	---
Service Water Pump APSW-1A2	Worthington Pump	VTP27736	---	---
Service Water Pump APSW-1B1	Worthington Pump	VTP27737	---	---
Service Water Pump APSW-1B2	Worthington Pump	VTP27739	---	---
Spent Fuel Pool Heat Exchanger AHSF	Struther Wells Filter	1-68-06-1519	U11445	---
Service Water Pump Strainer ASSW-1A1	S.P. Kinney Engineers	2278	---	---
Service Water Pump Strainer ASSW-1A2	S.P. Kinney Engineers	2279	---	---
Service Water Pump Strainer ASSW-1B1	S.P. Kinney Engineers	2280	---	---
Service Water Pump Strainer ASSW-1B2	S.P. Kinney Engineers	2281	---	---

**FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS  
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- 5. COMMERCIAL SERVICE DATE - JUNE 16, 1974**
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- 7. COMPONENTS INSPECTED -**

<u>COMPONENT OR APPURTENANCE</u>	<u>MANUFACTURER OR INSTALLER</u>	<u>MANUFACTURER OR INSTALLER SERIAL NO.</u>	<u>STATE OR PROVINCE NO.</u>	<u>NATIONAL BOARD NO.</u>
Component Cooling Heat Exchanger AHCC1-1A	Engineers and Fabricators	S-15748-A	U11426	1139
Component Cooling Heat Exchanger AHCC2-1B	Engineers and Fabricators	S-15748-B	U11427	1140
Component Cooling Surge Tank ATCS	Sharpsville Steel	714	U11421	714
Control Room Air Conditioning Chiller 1A (Condenser)	Trane	VES110589	—	108982
Control Room Air Conditioning Chiller 1B (Condenser)	Trane	VES110591	—	108984

FORM NIS-1 (Back)

8. Examination Dates March 16, 1999 to June 16, 2000
9. Inspection Period Identification 2nd
10. Inspection Interval Identification 3rd
11. Applicable Edition of Section XI 1989 Addenda None
12. Date/Revision of Inspection Plan March 24, 1997 Rev. 1
13. Abstract of Examinations and Tests. Include a list of examinations and tests and a statement concerning status of work required for the Inspection Plan. Reference Tab C
14. Abstract of Results of Examinations and Tests. Reference Tab B and Tab F
15. Abstract of Corrective Measures. Reference Tab B and Tab F  
Utilization of ASME Boiler and Pressure Vessel Code Section XI: Code Cases N-460 and N-491.

We certify that a) the statements made in this report are correct, b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI, and c) corrective measures taken conform to the rules of the ASME Code, Section XI.

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

Date June 26 <sup>19</sup>2000 Signed Wisconsin Public Service By [Signature]  
Owner

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 of HARTFORD, CT. have inspected the components described in this Owner's Report during the period MARCH 16, 1999 to JUNE 16, 2000, and state that to the best of my knowledge and belief, the Owner has performed examinations and tests and taken corrective measures described in this Owner's Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations, tests, 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.

[Signature] Commissions NB7741 WIS 10024 I, N, IS, A  
Inspector's Signature National Board, State, Province, and Endorsements

Date JUNE 27 <sup>19</sup>2000

**ATTACHMENT 2**

**Letter from K. H. Weinbauer (NMC)**

**To**

**Document Control Desk (NRC)**

**Dated**

**August 31, 2000**

**FORM NIS-1 Owner's Report for Inservice Inspections**

**Class MC Components**

**FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS  
AS REQUIRED BY THE PROVISIONS OF THE ASME CODE RULES**

- 1. OWNER - WISCONSIN PUBLIC SERVICE CORPORATION, 700 NORTH ADAMS,  
P.O. BOX 19001, GREEN BAY, WISCONSIN 54307- 9001**
- 2. PLANT -- KEWAUNEE, N490 HIGHWAY 42, KEWAUNEE, WISCONSIN 54216-9511**
- 3. PLANT UNIT - NO. 1**
- 4. OWNER CERTIFICATE OF AUTHORIZATION - N/A**
- 5. COMMERCIAL SERVICE DATE - JUNE 16, 1974**
- 6. NATIONAL BOARD NUMBER FOR UNIT - N/A**
- 7. COMPONENTS INSPECTED -**

<b><u>COMPONENT OR APPURTENANCE</u></b>	<b><u>MANUFACTURER OR INSTALLER</u></b>	<b><u>MANUFACTURER OR INSTALLER SERIAL NO.</u></b>	<b><u>STATE OR PROVINCE NO.</u></b>	<b><u>NATIONAL BOARD NO.</u></b>
<b>Reactor Building Containment Vessel</b>	<b>Chicago Bridge and Iron Company</b>	<b>C4454</b>	<b>U11423</b>	<b>--</b>
<b>Personnel Airlock</b>	<b>Chicago Bridge and Iron Company</b>	<b>C4454</b>	<b>U11423</b>	<b>--</b>



FORM NIS-1 (Back)

8. Examination Dates April 25, 2000 to June 2, 2000
9. Inspection Period Identification 1st
10. Inspection Interval Identification 1st
11. Applicable Edition of Section XI 1992 Addenda 1992
12. Date/Revision of Inspection Plan June 8, 1998 Rev. 0
13. Abstract of Examinations and Tests. Include a list of examinations and tests and a statement concerning status of work required for the Inspection Plan. Reference Tab C
14. Abstract of Results of Examinations and Tests. Reference Tab B and Tab F
15. Abstract of Corrective Measures. Reference Tab B and Tab F

We certify that a) the statements made in this report are correct, b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI, and c) corrective measures taken conform to the rules of the ASME Code, Section XI.

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

Date June 26 <sup>18</sup> 2000 Signed Wisconsin Public Service By Phil Keger  
Inspector's Signature Owner

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 of HARTFORD CT. have inspected the components described in this Owner's Report during the period April 25, 2000 to June 2, 2000, and state that to the best of my knowledge and belief, the Owner has performed examinations and tests and taken corrective measures described in this Owner's Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations, tests, 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.

Ray McGuire Commissions NB 7741 WIS 10024 I, N, IS, A  
Inspector's Signature National Board, State, Province, and Endorsements

Date June 27 <sup>18</sup> 2000

**ATTACHMENT 3**

**Letter from K. H. Weinbauer (NMC)**

**To**

**Document Control Desk (NRC)**

**Dated**

**August 31, 2000**

**FORM NIS-2 Owner's Report for Repair or Replacements (31 Total)**

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

1. Owner Wisconsin Public Service Corp.

Date 06/09/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 200

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 23 Class 2 CONTAINMENT SPRAY

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
ICS-201	FISHER CONTROLS INTERNATIONAL	4950737	NA	ICS013-002	1972	REPAIRED	N

7. Description of Work REPAIR CLASS 2 INTERNAL CONTAINMENT SPRAY SYSTEM 2" VALVE ICS-201 DUE TO HIGH INTERNAL LEAKAGE RATE.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 225 psi Test Temp. 81 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 06/09/00

Name of Component: ICS-201

Work Request/Order Number: 200

**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 *Inservice Inspection* Date June 13, 20 00  
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 this Owner's Report during the period 1-21-99 to 7-24-00, 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.

Ryan McGinnis  
Inspector's Signature

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

Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp. Date 07/14/00  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Sheet 1 of 2
2. Plant Kewaunee Nuclear Power Plant Unit No. 1  
N490 HWY 42 Kewaunee, WI 54216-9510 Work Request/Order Number 679
3. Work Performed By Wisconsin Public Service Corp. Type Code Symbol Stamp NA  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Authorization No. NA
4. Identification of System 06 Class 2 MAIN STEAM AND STEAM DUMP 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
SD-3A	FISHER CONTROLS CO.	4950741	NA	SD022-001	1969	REPAIRED	N

7. Description of Work OPEN CLASS 2 MAIN AUXILIARY STEAM AND STEAM DUMP SYSTEM 6" VALVE SD-3A FOR REPAIR OF SEAT LEAKAGE.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 650 psi Test Temp. 498 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 07/14/00

Name of Component: SD-3A

Work Request/Order Number: 679

**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 E. Beker Inservice Inspection Date July 14, 20 00  
Process Owner  
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 this Owner's Report during the period 1-21-99 to 7-24-00, 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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Erin M. Mueni Commissions NB7741, I, N, IS, A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 05/25/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 1085

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp N/A

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 35 Class 2 CHEMICAL AND VOLUME CONTROL

Expiration Date NA

5. (a) Applicable Construction Code ASME III CLASS C

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
ARG	JOSEPH OAT AND SONS	1831-1B	413 TO 415	00059	1970	REPAIRED	Y

7. Description of Work REPAIR CLASS 2 CHEMICAL AND VOLUME CONTROL SYSTEM REGENERATIVE HEAT EXCHANGER LOOSE NUTS ON SUPPORT BRACKETS.

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: 05/25/00Name of Component: ARGWork Request/Order Number: 1085**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 N/ACertificate of Authorization No. NAExpiration Date NA

Signed

Phillip C. Bikes *Inservice Inspection*  
*Process Owner*  
Owner or Owner's Designee, Title

Date

May 27, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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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Ryan Mignori  
Inspector's Signature

Commissions

NB7741, I. N. IS. A WIS 100024

National Board, State, Province, and Endorsements

Date

July 25, 20 00



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

1. Owner Wisconsin Public Service Corp.

Date 07/20/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 1096

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

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
RHR-299A	ALOYCO., INC.	NF	NA	SI008-001	1970	REPAIRED	N

7. Description of Work REPAIR CLASS 2 RESIDUAL HEAT REMOVAL SYSTEM 6" VALVE RHR-299A DUE TO LEAKAGE.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 28 psi Test Temp. 74 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 07/20/00

Name of Component: RHR-299A

Work Request/Order Number: 1096

**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. Dulkes *Inservice Inspection*  
Process Owner Date July 20, 20 00  
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 this Owner's Report during the period 1-21-99 to 7-24-00, 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 McIntyre Commissions NB7741, I.N.I.S.A. WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp. Date 06/02/00  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Sheet 1 of 2
2. Plant Kewaunee Nuclear Power Plant Unit No. 1  
N490 HWY 42 Kewaunee, WI 54216-9510 Work Request/Order Number 1244
3. Work Performed By Wisconsin Public Service Corp. Type Code Symbol Stamp NA  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 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	REPAIRED	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.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 2237.4 psi Test Temp. 547.9 deg. F
9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

NIS-2 (Back)

Sheet 2 of 2

Date: 06/02/00

Name of Component: SI-304B

Work Request/Order Number: 1244

**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*  
Process Owner  
Owner or Owner's Designee, Title

Date June 13, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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.

John M. Murni  
Inspector's Signature

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

Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 06/07/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 1256

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 36 Class 1 REACTOR COOLANT

Expiration Date NA

5. (a) Applicable Construction Code B16.5

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
LD-2	MASONELIAN INTERNATIONAL INC.	H46695-2	NA	RC011-001	1970	REPAIRED	N

7. Description of Work OPEN FOR REPAIR CLASS 1 REACTOR COOLANT SYSTEM 2" VALVE LD-2 DUE TO CONTROL VALVE OPENING AND CLOSING PROBLEMS.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 2237.4 psi Test Temp. 547.9 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 06/07/00

Name of Component: LD-2

Work Request/Order Number: 1256

**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 *Inservice Inspection*  
Process Owner Date June 13, 20 00  
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 this Owner's Report during the period 1-21-99 to 7-24-00, 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.

Arjan Mijnen Commissions NB7741, I.N.I.S.A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 05/31/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 1282

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 06 Class 2 MAIN STEAM AND STEAM DUMP

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
SD-1A1	DRESSER INDUSTRIAL VALVE & INSTRUMENTS	07881	NA	SD023-001	1977	REPAIRED	N

7. Description of Work OPEN FOR REPAIR CLASS 2 MAIN AUXILIARY STEAM AND STEAM DUMP SYSTEM 6" VALVE SD-1A1.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 1010 psi Test Temp. 546 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 05/31/00

Name of Component: SD-1A1

Work Request/Order Number: 1282

**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*  
Owner or Owner's Designee, Title Process Owner Date June 13, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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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Arza M. G. M. G. M. Commissions NB7741, I. N. IS. A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00



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

1. Owner Wisconsin Public Service Corp.

Date 05/25/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 1355

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System Q6 Class 2 MAIN STEAM AND STEAM DUMP

Expiration Date NA

5. (a) Applicable Construction Code NA

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
SG-AH-2	MCDOWELL WELLMAN	25.12620.004-7	NA	1S-0066	1971	REPAIRED	N

7. Description of Work REPAIR 900 KIP HYDRAULIC SNUBBER RESERVOIR ON CLASS 2 MAIN STEAM AND STEAM DUMP SYSTEM STEAM GENERATOR 1B.

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: 05/25/00

Name of Component: SG-AH-2

Work Request/Order Number: 1355

**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 *Inspection* Date May 27, 20 00  
*Process Owner*  
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 this Owner's Report during the period 1-21-99 to 7-24-00, 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 McGinn Commissions NB7741, I. N. IS. A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 06/02/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 1427

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 02 Class 3 SERVICE WATER

Expiration Date NA

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

Code Case N-416-1

(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
SW-1223A	CRANE CO.	NF	NA	SW134-181	1973	REPLACEMENT	N

7. Description of Work INSTALL NEW CLASS 3 SERVICE WATER SYSTEM 1 1/2" PIPING AND 1 1/2" VALVE SW-1223A.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 88 psi Test Temp. 52 deg. F

9. Remarks UTILIZATION OF ASME BOILER AND PRESSURE VESSEL CODE SECTION XI: CODE CASE N-416-1 PER NRC APPROVAL OF RELIEF REQUEST RR-G-3.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 06/02/00

Name of Component: SW-1223A

Work Request/Order Number: 1427

**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 *Insurance Inspection*  
Owner or Owner's Designee, Title Process Owner Date June 13, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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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Luiza Matyjas Commissions NB7741, I, N, IS, A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 05/31/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 1468

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

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-303A	VELAN VALVE CORPORATION	NF	NA	SI116-003	1967	REPAIRED	N

7. Description of Work REPAIR CLASS 1 SAFETY INJECTION SYSTEM 6" VALVE SI-303A DUE TO BONNET LEAK.

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: 05/31/00

Name of Component: SI-303A

Work Request/Order Number: 1468

**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. Butera *Inservice Inspection*  
Owner or Owner's Designee, Title Process Owner Date June 13, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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.

Bryan McGinnis Commissions NB7741, I, N, IS, A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 06/13/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 1604

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 02 Class 3 SERVICE WATER

Expiration Date NA

5. (a) Applicable Construction Code B31.1-1977

Code Case N-416-1

(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
SW 3 IN. SS ELBOW	CUSTOM ALLOY CORP.	D-7277	NA	NA	1980	REPLACEMENT	N

7. Description of Work INSTALLED STAINLESS STEEL ELBOW ON THE CLASS 3 SERVICE WATER SYSTEM LOCATED DOWNSTREAM OF 3" VALVE SW-30A2.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 101 psi Test Temp. 56 deg. F

9. Remarks UTILIZATION OF ASME BOILER AND PRESSURE VESSEL CODE SECTION XI: CODE CASE N-416-1 (PER NRC APPROVAL OF RELIEF REQUEST RR-G-3).

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 06/13/00

Name of Component: SW 3 IN. SS ELBOW

Work Request/Order Number: 1604

**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. Butes *Inservice Inspection*  
*Process Owner*  
Owner or Owner's Designee, Title

Date

June 13, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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.

Arge Mitzner  
Inspector's Signature

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

Date

July 25, 20 00



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

1. Owner Wisconsin Public Service Corp.

Date 06/02/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 1611

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 34 Class 2 RESIDUAL HEAT REMOVAL

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
RHR-H10H	ITT GRINNELL VALVE CO.	NF	NA	NA	1967	REPAIRED	N

7. Description of Work REPAIR CLASS 2 RESIDUAL HEAT REMOVAL SYSTEM 8" HYDRAULIC SNUBBER RHR-H10H DUE TO MISSING NUT ON PIPE CLAMP.

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: 06/02/00

Name of Component: RHR-H10H

Work Request/Order Number: 1611

**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. Buker *Inservice Inspection*  
Process Owner Date June 13 . 20 00  
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 this Owner's Report during the period 1-21-99 to 7-24-00, 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.

Boyd Mitzman Commissions NB7741, I, N, IS, A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25 . 2000

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

1. Owner Wisconsin Public Service Corp.

Date 05/31/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 1804

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

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-303A	VELAN VALVE CORPORATION	NF	NA	SI116-003	1967	REPAIRED	N

7. Description of Work REPAIR, DUE TO BODY TO BONNET LEAK, CLASS 1 SAFETY INJECTION SYSTEM 6" VALVE SI-303A BY SEAL WELDING THE COVER.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 2240 psi Test Temp. 547.3 deg. F

9. Remarks INLET PRESSURE 80 DEGREES F AND 30 PSIG.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 05/31/00

Name of Component: SI-303A

Work Request/Order Number: 1804

**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. Butkus *Insurence Inspection*  
*Process Owner*  
Owner or Owner's Designee, Title

Date June 13, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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. Mynen  
Inspector's Signature

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

Date

July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 05/15/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 212607

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

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-7B	VELAN VALVE CORPORATION	NF	NA	SI015-002	1970	REPAIRED	N

7. Description of Work REPAIR CLASS 2 SAFETY INJECTION SYSTEM 4" VALVE SI-7B DUE TO DIFFICULTY IN OPERATING..

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 2145 psi Test Temp. 84.2 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 05/15/00

Name of Component: SI-7B

Work Request/Order Number: 212607

**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. Buted <sup>Inservice Inspection</sup> Process Owner Date May 27, 20 00  
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 this Owner's Report during the period 1-21-99 to 7-27-00, 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.

Lozan M. M. M.  
Inspector's Signature

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

Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp. Date 05/31/00  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Sheet 1 of 2
2. Plant Kewaunee Nuclear Power Plant Unit No. 1  
N490 HWY 42 Kewaunee, WI 54216-9510 Work Request/Order Number 214675
3. Work Performed By Wisconsin Public Service Corp. Type Code Symbol Stamp NA  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Authorization No. NA
4. Identification of System 35 Class 2 CHEMICAL AND VOLUME CONTROL Expiration Date NA
5. (a) Applicable Construction Code ASME B31.3 Code Case N-416-1  
(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
FE-175	DANIEL INDUSTRIES INC.	NF	NA	21788	1998	REPLACEMENT	N

7. Description of Work REPLACE CLASS 2 CHEMICAL AND VOLUME CONTROL SYSTEM FT-175 AND FT-177 FLOW TRANSMITTERS WITH FLOW ELEMENT FE-175 AND REROUTING OF REQUIRED 2", 3/4", 1/2" AND 3/8" PIPING INCLUDING REMOVAL OF 3/4" VALVE CVC-241A AND 3/4" VALVE CVC-240A.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 2240 psi Test Temp. 548 deg. F
9. Remarks UTILIZATION OF ASME BOILER AND PRESSURE VESSEL CODE SECTION XI: CODE CASE N-416-1 PER NRC APPROVAL OF RELIEF REQUEST RR-G-3.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 05/31/00

Name of Component: FE-175

Work Request/Order Number: 214675

**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. Bakes Inservice Inspection Process Owner Date June 13, 20 00  
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 this Owner's Report during the period 1-21-99 to 7-24-00, 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. Myni Commissions NB7741, I. N. IS, A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00



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

1. Owner Wisconsin Public Service Corp. Date 05/31/00  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Sheet 1 of 2
2. Plant Kewaunee Nuclear Power Plant Unit No. 1  
N490 HWY 42 Kewaunee, WI 54216-9510 Work Request/Order Number 214676
3. Work Performed By Wisconsin Public Service Corp. Type Code Symbol Stamp NA  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Authorization No. NA
4. Identification of System 35 Class 2 CHEMICAL AND VOLUME CONTROL Expiration Date NA
5. (a) Applicable Construction Code ASME B31.3 Code Case N-416-1  
(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
FE-176	DANIEL INDUSTRIES INC.	NF	NA	21789	1998	REPLACEMENT	N

7. Description of Work REPLACE CLASS 2 CHEMICAL AND VOLUME CONTROL SYSTEM FT-176 AND FT-178 FLOW TRANSMITTERS WITH FLOW ELEMENT FE-176 AND REROUTING OF REQUIRED 2", 3/4" 1/2" AND 3/8" PIPING INCLUDING REMOVING OF 3/4 VALVE CVC-240B AND 3/4" VALVE CVC-241B.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 2237.4 psi Test Temp. 547.8 deg. F
9. Remarks UTILIZATION OF ASME BOILER AND PRESSURE VESSEL CODE SECTION XI: CODE CASE N-416-1 PER NRC APPROVAL OF RELIEF REQUEST RR-G-3.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 05/31/00

Name of Component: FE-176

Work Request/Order Number: 214676

**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. Bukos Inservice Inspection  
Process Owner Date June 13, 20 00  
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 this Owner's Report during the period 1-21-99 to 7-24-00, 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.

Ryan McGinnis Commissions NB7741, I, N, IS, A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 05/31/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 215449

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 36 Class 1 REACTOR COOLANT

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
PR-1B	VELAN VALVE CORPORATION	114550	NA	RC018-002	1967	REPAIRED	N

7. Description of Work REPAIR CLASS 1 REACTOR COOLANT SYSTEM 3" VALVE PR-1B DUE TO INDICATION OF BODY TO BONNET LEAK.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 2237.4 psi Test Temp. 547.9 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 05/31/00

Name of Component: PR-1B

Work Request/Order Number: 215449

**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. Bukas <sup>Inservice Inspection</sup>  
Owner or Owner's Designee, Title Process Owner Date June 13, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-21-00, 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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Angen McIntyre  
Inspector's Signature

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

Date July 25, 20 02

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

1. Owner Wisconsin Public Service Corp.

Date 06/14/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 215894

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 06 Class 2 MAIN STEAM AND STEAM DUMP

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
SD-3B	FISHER CONTROLS CO.	4950742	NA	SD022-002	1969	REPAIRED	N

7. Description of Work REPAIR CLASS 2 MAIN STEAM AND STEAM DUMP SYSTEM 6" VALVE SD-3B DUE TO SEAT LEAKAGE.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 705 psi Test Temp. 505 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 06/14/00

Name of Component: SD-3B

Work Request/Order Number: 215894

**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. Bukas *Inservice Inspection*  
*Process Owner*  
Owner or Owner's Designee, Title

Date

June 14, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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 McIntire  
Inspector's Signature

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

Date

July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 05/31/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 216693

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 36 Class 1 REACTOR COOLANT

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
PR-1A	VELAN VALVE CORPORATION	114554	NA	RC018-001	1967	REPAIRED	N

7. Description of Work REPAIR CLASS 1 REACTOR COOLANT SYSTEM 3" VALVE PR-1A DUE TO POSSIBLE BODY TO BONNET LEAK.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 2237.4 psi Test Temp. 547.9 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 05/31/00

Name of Component: PR-1A

Work Request/Order Number: 216693

**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. Bukes *Inservice Inspection* Date June 13, 20 00  
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 this Owner's Report during the period 1-21-99 to 7-24-00, 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.

Rayn McGinn  
Inspector's Signature

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

Date July 25, 20 00



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

1. Owner Wisconsin Public Service Corp.

Date 05/15/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 217184

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

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-7A	VELAN VALVE CORPORATION	NF	NA	SI015-001	1970	REPAIRED	N

7. Description of Work REPAIR CLASS 2 SAFETY INJECTION SYSTEM 4" VALVE SI-7A DUE TO DIFFICULTY IN OPERATING.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 2145 psi Test Temp. 84.2 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 05/15/00

Name of Component: SI-7A

Work Request/Order Number: 217184

**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. Bukes *Inservice Inspection*  
Owner or Owner's Designee, Title Process Owner Date May 27, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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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Rayn Metzner Commissions NB7741, I, N, IS, A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 09/07/99

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 217202

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 02 Class 3 SERVICE WATER

Expiration Date NA

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

Code Case N-416-1

(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
SW-1601	FISHER CONTROLS CO.	15329529	NA	SW051-001	1999	REPAIRED	N

7. Description of Work WELD REPAIR PIN HOLE LEAK ON 6" TO 4" REDUCING ELBOW TO VALVE 4" WELD DOWNSTREAM OF CLASS 3 SERVICE WATER SYSTEM 4" VALVE SW-1601. OPEN 4" VALVE SW-1601 FOR INSPECTION OF INTERNAL CONDITION.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 88 psi Test Temp. 70.1 deg. F

9. Remarks UTILIZATION OF ASME BOILER AND PRESSURE VESSEL CODE SECTION XI CODE CASE N-416-1 (PER NRC APPROVAL OF RELIEF REQUEST RR-G-3).

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 09/07/99

Name of Component: SW-1601

Work Request/Order Number: 217202

**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*  
Owner or Owner's Designee, Title

Date

May 27, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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 McGinnis  
Inspector's Signature

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

Date

July 25, 20 00

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

1. Owner Wisconsin Public Service Corp. Date 03/24/00  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Sheet 1 of 2
2. Plant Kewaunee Nuclear Power Plant Unit No. 1  
N490 HWY 42 Kewaunee, WI 54216-9510 Work Request/Order Number 217205
3. Work Performed By Wisconsin Public Service Corp. Type Code Symbol Stamp NA  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Authorization No. NA
4. Identification of System 02 Class 3 SERVICE WATER Expiration Date NA
5. (a) Applicable Construction Code B31.1-1967 Code Case N-416-1  
(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
SW-1601	FISHER CONTROLS CO.	15329529	NA	SW051-001	1999	REPLACEMENT	N

7. Description of Work REPLACED CLASS 3 SERVICE WATER SYSTEM 4" VALVE SW-1601 DUE TO CAVITATION DAMAGE.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 92 psi Test Temp. 45.7 deg. F

9. Remarks UTILIZATION OF ASME BOILER AND PRESSURE VESSEL CODE SECTION XI: CODE CASE N-416-1 (PER NRC APPROVAL OF RELIEF REQUEST RR-G-3.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 03/24/00

Name of Component: SW-1601

Work Request/Order Number: 217205

**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. Butas *Inservice Inspection*  
Owner or Owner's Designee, Title Process Owner Date May 27, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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 Metzger Commissions NB7741, I, N, IS, A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 03/24/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number 217205

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 02 Class 3 SERVICE WATER

Expiration Date NA

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

Code Case N-416-1

(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
RED. ELBOW	DUBOSE NATIONAL ENERGY SERVICES	160508	NA	NA	1999	REPLACEMENT	N

7. Description of Work REPLACED CLASS 3 SERVICE WATER SYSTEM 6" X 4" REDUCING ELBOW DOWNSTREAM OF VALVE SW-1601 DUE TO CAVITATION DAMAGE.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 92 psi Test Temp. 45.7 deg. F

9. Remarks UTILIZATION OF ASME BOILER AND PRESSURE VESSEL CODE SECTION XI: CODE CASE N-416-1 (PER NRC APPROVAL OF RELIEF REQUEST RR-G-3).

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 03/24/00

Name of Component: RED ELBOW

Work Request/Order Number: 217205

**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. Dupes *Inservice Inspection*  
*Process Owner*  
Owner or Owner's Designee, Title

Date May 27, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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 Mitzman  
Inspector's Signature

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

Date

July 25, 20 00



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

1. Owner Wisconsin Public Service Corp. Date 10/29/99  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Sheet 1 of 2
2. Plant Kewaunee Nuclear Power Plant Unit No. 1  
N490 HWY 42 Kewaunee, WI 54216-9510 Work Request/Order Number 217465
3. Work Performed By Wisconsin Public Service Corp. Type Code Symbol Stamp NA  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Authorization No. NA
4. Identification of System 02 Class 3 SERVICE WATER Expiration Date NA
5. (a) Applicable Construction Code B31.1-1967 Code Case N-416-1  
(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
SW-1601	FISHER CONTROLS CO.	15329529	NA	SW051-001	1999	REPAIRED	N

7. Description of Work WELD REPAIR PIN HOLE LEAK ON 6" X 4" REDUCING ELBOW TO VALVE 4" WELD DOWNSTREAM OF CLASS 3 SERVICE WATER SYSTEM 4" VALVE SW-1601. OPEN 4" VALVE SW-1601 FOR ACCESS.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 80 psi Test Temp. 48 deg. F
9. Remarks UTILIZATION OF ASME BOILER AND PRESSURE VESSEL CODE SECTION XI CODE CASE N-416-1 (PER NRC APPROVAL OF RELIEF REQUEST RR-G-3).

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 10/29/99

Name of Component: SW-1601

Work Request/Order Number: 217465

**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*  
Owner or Owner's Designee, Title Process Owner Date May 27, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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 McGinnis  
Inspector's Signature

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

Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 05/31/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number CMP 36-007

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 36 Class 1 REACTOR COOLANT

Expiration Date NA

5. (a) Applicable Construction Code ASME III-1968

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
PR-3A	CROSBY, ASHTON GAGE COMPANY	NF	NA	RC008-001	1972	REPAIRED	N

7. Description of Work REMOVE CLASS 1 REACTOR COOLANT SYSTEM 6" VALVE PR-3A FOR TESTING.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 2237.4 psi Test Temp. 547.9 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

# NIS-2 (Back)

Sheet 2 of 2

Date: 05/31/00

Name of Component: PR-3A

Work Request/Order Number: CMP 36-007

## 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*  
Process Owner  
Owner or Owner's Designee, Title

Date

June 13, 20 00

## 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 this Owner's Report during the period 1-21-99 to 7-24-00, 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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Boyer Mahan

Inspector's Signature

Commissions

NB7741, I. N. IS. A WIS 100024

National Board, State, Province, and Endorsements

Date

July 25

, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 05/30/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number CMP 36-007

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 36 Class 1 REACTOR COOLANT

Expiration Date NA

5. (a) Applicable Construction Code ASME III-1968

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
PR-3B	CROSBY, ASHTON GAGE COMPANY	NF	NA	RC008-002	1972	REPAIRED	N

7. Description of Work REMOVE CLASS 1 REACTOR COOLANT SYSTEM 6" VALVE PR-3B FOR TESTING.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 2237.4 psi Test Temp. 547.9 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 05/30/00

Name of Component: PR-3B

Work Request/Order Number: CMP 36-007

**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*  
*Process Owner*  
Owner or Owner's Designee, Title

Date

June 13, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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 W. Wynn  
Inspector's Signature

Commissions

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

Date

July 25, 20 00

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

1. Owner Wisconsin Public Service Corp. Date 10/28/99  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Sheet 1 of 2
2. Plant Kewaunee Nuclear Power Plant Unit No. 1  
N490 HWY 42 Kewaunee, WI 54216-9510 Work Request/Order Number PM-35-746
3. Work Performed By Wisconsin Public Service Corp. Type Code Symbol Stamp NA  
700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001 Authorization No. NA
4. Identification of System 35 Class 2 CHEMICAL AND VOLUME CONTROL Expiration Date NA
5. (a) Applicable Construction Code SEC. VIII DIV.1-1975 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
APD-1A	GREER HYDRAULICS	GHI-1848	NA	07000	1975	REPLACEMENT	Y

7. Description of Work REPLACE DAMPENER SPRING ON CLASS 2 CHEMICAL AND VOLUME CONTROL SYSTEM CHARGING PUMP 1A PULSATION DAMPENER.
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 2240 psi Test Temp. 116 deg. F
9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 10/28/99

Name of Component: APD-1A

Work Request/Order Number: PM-35-746

**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. Bukes *Inservice Inspector* Date May 27, 20 00  
Process Owner  
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 this Owner's Report during the period 1-21-99 to 7-24-00, 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 Montgomery Commissions NB7741, I. N. IS. A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00



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

1. Owner Wisconsin Public Service Corp.

Date 11/29/99

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number PM-35-747

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 35 Class 2 CHEMICAL AND VOLUME CONTROL

Expiration Date NA

5. (a) Applicable Construction Code SEC. VIII DIV. I-1975

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
APD-1B	GREER HYDRAULICS	GHI-1846	NA	07001	1975	REPLACEMENT	Y

7. Description of Work REPLACE DAMPENER SPRING ON CLASS 2 CHEMICAL AND VOLUME CONTROL SYSTEM CHARGING PUMP 1B PULSATION DAMPENER.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 2245 psi Test Temp. 115 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 11/29/99

Name of Component: APD-1B

Work Request/Order Number: PM-35-747

**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*  
Process Owner  
Owner or Owner's Designee, Title

Date

May 27, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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. Quinn  
Inspector's Signature

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

Date

July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 10/29/99

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number PM-35-748

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 35 Class 2 CHEMICAL AND VOLUME CONTROL

Expiration Date NA

5. (a) Applicable Construction Code SEC. VIII DIV.1-1975

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
APD-1C	GREER HYDRAULICS	GHI-1849	NA	07002	1975	REPLACEMENT	Y

7. Description of Work REPLACE DAMPENER SPRING ON CLASS 2 CHEMICAL AND VOLUME CONTROL SYSTEM CHARGING PUMP 1C PULSATION DAMPENER.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 2245 psi Test Temp. 117 deg. F

9. Remarks NOT APPLICABLE.

Applicable Manufacturer's Data Reports to be Attached

**NIS-2 (Back)**  
Sheet 2 of 2

Date: 10/29/99

Name of Component: APD-1C

Work Request/Order Number: PM-35-748

**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. Bakes *Inservice Inspection*  
Owner or Owner's Designee, Title

Date May 27, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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 McIntyre  
Inspector's Signature

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

Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 05/31/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number PM 36-064

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 36 Class 1 REACTOR COOLANT

Expiration Date NA

5. (a) Applicable Construction Code ASME III CL. A-1966

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
SG-1A (CLASS 1)	WESTINGHOUSE	1141	68-28	00035	1968	REPAIRED	Y

7. Description of Work INSTALL TUBE SLEEVES IN PRIMARY SIDE HOTLEG. MECHANICAL PLUGS IN PRIMARY SIDE HOTLEG AND COLDEG AND WELDED PLUG (1) IN PRIMARY SIDE HOTLEG IN THE CLASS 1 REACTOR COOLANT SYSTEM STEAM GENERATOR 1A.

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: 05/31/00

Name of Component: SG-1A (CLASS 1)

Work Request/Order Number: PM 36-064

## 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 Date June 13, 20 00  
Process Owner  
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 this Owner's Report during the period 1-21-99 to 7-21-00, 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.

Boyd McGinnis Commissions NB7741, I, N, IS, A WIS 100024  
Inspector's Signature National Board, State, Province, and Endorsements  
Date July 25, 20 00

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

1. Owner Wisconsin Public Service Corp.

Date 05/31/00

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Sheet 1 of 2

2. Plant Kewaunee Nuclear Power Plant

Unit No. 1

N490 HWY 42 Kewaunee, WI 54216-9510

Work Request/Order Number PM 36-066

3. Work Performed By Wisconsin Public Service Corp.

Type Code Symbol Stamp NA

700 North Adams P.O. Box 19001 Green Bay, WI 54307-9001

Authorization No. NA

4. Identification of System 36 Class 1 REACTOR COOLANT

Expiration Date NA

5. (a) Applicable Construction Code ASME III CLA-1966

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
SG-1B (CLASS 1)	WESTINGHOUSE	1142	68-29	00036	1968	REPAIRED	Y

7. Description of Work INSTALL TUBE SLEEVES IN PRIMARY SIDE HOTLEG, MECHANICAL PLUGS IN PRIMARY SIDE HOTLEG AND COLDLEG AND WELDED PLUG (1) IN PRIMARY SIDE COLDLEG IN THE CLASS 1 REACTOR COOLANT SYSTEM STEAM GENERATOR 1B.

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: 05/31/00

Name of Component: SG-1B (CLASS 1)

Work Request/Order Number: PM 36-066

**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. Bures *Inservice Inspection*  
Owner or Owner's Designee, Title Process Owner Date June 13, 20 00

**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 this Owner's Report during the period 1-21-99 to 7-24-00, 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.

Boya Mlynar  
Inspector's Signature

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

Date July 25, 20 00



## **ATTACHMENT 4**

**Letter from K. H. Weinbauer (NMC)**

**To**

**Document Control Desk (NRC)**

**Dated**

**August 31, 2000**

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

**WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT  
3RD INTERVAL: 2ND PERIOD: 2ND OUTAGE  
2000  
EXAMINATION SUMMARY**

**INTRODUCTION**

An Inservice Inspection (ISI) Program (Scheduled and Augmented) was performed at the Kewaunee Nuclear Power Plant from March 16, 1999 through June 15, 1999 (Non Refueling Outage), April 22, 2000 through June 2, 2000 (Closing of G1 following Refueling Outage) and June 16, 2000 by Kewaunee Nuclear Power Plant; Lambert, MacGill, and Thomas, Inc. (LMT); and Professional Welding Associates (PWA) examination personnel.

Examinations were performed to satisfy the requirements of:

- o ASME Boiler and Pressure Vessel Code Section XI 1989 Edition
- o United States Nuclear Regulatory Commission IE Bulletin 79-13
- o United States Nuclear Regulatory Commission Generic Letter 88-05
- o United States Nuclear Regulatory Commission Information Notice 97-46
- o Kewaunee Nuclear Power Plant Nuclear Regulatory Commission Commitment Tracking No.95-046

The Inservice Inspection Program Plan and Augmented Inspection Program Plan located under Tab C was prepared by Wisconsin Public Service Corporation-Kewaunee Nuclear Power Plant for the 3rd Interval: 2nd Period: 2nd 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 complete the 3rd Interval: 2nd Period Examination Requirements of ASME Boiler and Pressure Vessel Code Section XI and Kewaunee Nuclear Power Plant Third 10-Year Inservice Inspection (ISI) Program 1994-2004.

The following items were examined:

- o Reactor Vessel Upper and Lower Internals
- o Steam Generators Nozzle Inside Radius Sections, Tubesheet to Head Weld, Nozzle to Safe End Butt Weld, Tubesheet to Shell Weld and Shell Circumferential Weld
- o Steam Generator Feedwater Nozzle to Pipe Welds
- o Class 1 Piping Socket Weld

- o Class 2 Piping Integrally Welded Attachment
- o Class 1, Class 2 and Class 3 Piping and Component Supports and Hangers
- o Class 1 and Class 2 Reactor Vessel Conoseal Bolting, Pressurizer Manway Bolting, Flange Bolting and Valve Bonnet Bolting
- o Class 1 System Leakage Test
- o 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.

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 2000 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>
Class 2 Feedwater Piping	Ultrasonic (UT)	2 Welds
Class 2 Feedwater Piping	Radiography (RT)	1 Weld
Component Supports and Hangers	Visual (VT-3)	2 Supports
Reactor Vessel Conoseal Bolting	Visual (VT-3)	1 Conoseal
Valve Bonnet Bolting	Visual (VT-3)	8 Valves
System Pressure Tests	Visual (VT-2)	31 Items

1. Recordable Indications, previously noted in 1995, 1996-1997 and 1998, were recorded during Automated Ultrasonic and Radiography examinations of the Class 2 Feedwater Nozzle to Pipe Welds FW-W29 and FW-W57. Reexaminations during the 2000 Refueling Outage were performed to satisfy Kewaunee Nuclear Power Plant Nuclear Regulatory Commission Commitment Tracking No. 95-046. The indications recorded on FW-W29 and FW-W57 were accepted through Analytical Evaluation as permitted by ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Paragraphs IWB-3142.4, IWB-3600 and IWC-3600. The Analytical Evaluation is documented in Westinghouse Electric Corporation WCAP-14359 Rev. 2 Structural Integrity Evaluation for The Feedwater Nozzle to Pipe Weld Region of the Kewaunee Nuclear Plant October 1998, Structural Integrity Evaluation for the Feedwater Nozzle to Pipe Weld Region Kewaunee Nuclear Power Plant 1998 Refueling Outage and Structural Integrity Evaluation for the Feedwater Nozzle to Pipe Welds Region 2000 Refueling Outage Kewaunee Nuclear Power Plant.

As required by ASME Boiler and Pressure Vessel Code Section XI 1989 Edition Paragraph IWC-2420 "Successive Inspections" Feedwater Nozzle to Pipe Welds FW-W29 and FW-W57 will be ultrasonically examined with Automated Equipment and by Radiographic examination methods during the 2001 Refueling Outage.

2. Visual Indications recorded on Reactor Vessel Conoseal 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: Wisconsin Public Service Corporation Maintenance, Quality Control, Engineering and Technical Support and Inservice Inspection Personnel and reviewed by the Authorized Nuclear Inservice Inspector.

## SUMMARY

An Inservice Inspection Program Plan was performed at the Kewaunee Nuclear Power Plant from March 16, 1999 through June 15, 1999 (Non Refueling Outage) and April 22, 2000 through June 2, 2000 (Closing of G1 following Refueling Outage) and June 16, 2000. Examinations were performed as scheduled in the Kewaunee Nuclear Power Plant Third 10-Year Inservice Inspection (ISI) Program 1994-2004 and completed the requirements for the 3rd Interval; 2nd Period. A total of 45 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 June 22, 2000*

Phillip E. Bukes

Date

Engineering and Technical Support  
Inservice Inspection Process Owner

## **ATTACHMENT 5**

**Letter from K. H. Weinbauer (NMC)**

**To**

**Document Control Desk (NRC)**

**Dated**

**August 31, 2000**

**Examination Summary for Inservice Inspection (ISI) Class MC Program**

**WISCONSIN PUBLIC SERVICE CORPORATION  
KEWAUNEE NUCLEAR POWER PLANT  
1ST INTERVAL: 1ST PERIOD: 2ND OUTAGE  
2000  
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 April 25, 2000 through June 2, 2000 (Closing of G1 following Refueling Outage) by Kewaunee Nuclear Power Plant examination personnel.

Examinations were performed to satisfy the requirements of:

- o 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 Wisconsin Public Service Corporation-Kewaunee Nuclear Power Plant for the 1st Interval: 1st Period: 2nd Outage as identified in the Kewaunee Nuclear Power Plant First 10-Year Inservice Inspection (ISI) Program 1996-2006. Examinations during this Refueling Outage were performed to complete the 1st Interval: 1st Period Examination Requirements of ASME Boiler and Pressure Vessel Code Section XI and 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:

- o Accessible Surface Areas
- o Longitudinal Welds
- o Seals and Gaskets
- o Containment Penetration Bellows
- o 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 2000 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 RIs</u></b>
Reactor Building Containment Vessel Equipment Door Inner and Outer Gaskets	VT-3	1 Inner Gasket 1 Outer Gasket
Penetration No. 41E O-Ring Seals	Appendix J Type B Test	1

1. Visual Recordable Indications on the Reactor Building Containment Vessel Equipment Door Inner and Outer Gaskets were recorded during performance of VT-3 Examinations. The Recordable Visual Indications noted were damage to the gaskets and portions of the gaskets with tears. Both the Inner and Outer Door Gaskets were replaced under Work Order 00-000598-000. VT-3 Examination were performed on the Replacement Equipment Door Inner and Outer Gaskets and found to be Acceptable.



2. Leak Testing to Appendix J Type B Test on Penetration 41E O-Ring Seals exceeded the administrative limits. Work Order 00-001448-000 was generated to perform repair. Subsequent reexamination resulted in Acceptable Administrative Leakage Limits.

## SUMMARY

An Inservice Inspection Program for the Class MC Reactor Building Containment Vessel was performed at the Kewaunee Nuclear Power Plant from April 25, 2000 through June 2, 2000 (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 and completed the requirements for the 1st Interval; 1st Period. A total of 2 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 or Evaluation or Kewaunee Nuclear Power Plant Technical Specifications.

*Phillip E. Bukes*

Phillip E. Bukes

Engineering and Technical Support

Inservice Inspection Process Owner

*June 6, 2000*

Date

**ATTACHMENT 6**

**Letter from K. H. Weinbauer (NMC)**

**To**

**Document Control Desk (NRC)**

**Dated**

**August 31, 2000**

**Steam Generator Tube Synopsis for Eddy Current Examinations and Repairs**

June 15, 2000

SP-36-084 File

## **STEAM GENERATOR EXAMINATION AND REPAIR SUMMARY FOR THE 2000 REFUELING OUTAGE**

### **STEAM GENERATOR A**

#### **Eddy Current Examinations**

- 1) 100% bobbin coil examination of all non-repaired tubing, from tube end to tube end (833 tubes), and 100% bobbin coil examination of all repaired (sleeved) tubing, from top of sleeve hot leg to tube end cold leg (1754 tubes).

Of the 2587 tubes examined (36,218 tube support plate intersections), there were 341 tube support plate indications reported in 263 tubes. One tube reported was in excess of the Technical Specification plugging limit of two volts. The average voltage of 0.57 volts was about the same as the two previous inspections. The voltage range extended from a low of 0.11 volts to a high of 3.42 volts. There were 101 tubes with wear indications at the AVB's, none in excess of the TS plugging limit of 50% throughwall. The largest indication reported at an AVB location was 35% throughwall. In general, the AVB indications have not grown significantly over the past few cycles.

- 2) 100% plus point RPC examination of inservice Westinghouse HEJ sleeves, from the top of the sleeve to ~6 inches below the top of the HEJ (930 tubes), and 22% plus point RPC examination of inservice HEJ sleeves, from ~6" below the top of the sleeve to the bottom of the sleeve (208 tubes).

Of the 930 Westinghouse HEJ sleeves examined, 316 contained circumferential indications within the hardroll lower transition of the upper HEJ joint reported during the 1998 inspection and left in service under the HEJ L criterion. During the 2000 inspection, all 316 tubes were re-inspected and all continue to meet the L criterion. Of the remaining 614 HEJ sleeved tubes, 94 (29.7%) contained circumferential indications within the hardroll lower transition of the upper HEJ joint. This compares well with the 28.2% confirmation rate during the 1998 inspection. All 94 locations fell outside of the revised pressure boundary (i.e. >0.95 inches below the hardroll upper transition) and remain in service. No degradation was detected in the sleeve lower joints or the sleeve straight lengths.

- 3) 27% plus point RPC examination of inservice ABB welded sleeves, from the top of the sleeve to the bottom of the sleeve (125 tubes).

No degradation was detected in the ABB welded sleeves. This population included both 27" tubesheet sleeves installed in 1992, 1997 and 1998 as well as the 39" sleeves installed in 1997 as part of the resleeving effort.

- 4) 100% plus point RPC of open row 1 and row 2 U-bends, from 07H to 07C (105 tubes), and 20% plus point RPC of open row 3 U-bends, from 07H to 07C (18 tubes).

The population sampled included 37 row 1 tubes, 68 row 2 tubes and 18 row 3 tubes utilizing a mid-frequency +Point probe and a high frequency +Point probe. For the row 1 tubes, one indication of axially oriented Primary Water Stress Corrosion Cracking (PWSCC) was detected in the U-bend region and was removed from service. For the remaining tubes, 1 tube contained multiple axially oriented OD indications in the U-bend region in row 2 and 3 tubes contained multiple axially oriented OD indications in the U-bend region in row 3. The signal characteristics were not typical of ODSCC and a historical review of the location of the signals showed that the signals had been present in previous inspections. These OD indications were also detected during the bobbin coil inspection and were removed from service. In-situ pressure testing was performed for all indications identified in the low row U-bends; no leakage was reported at pressures corresponding to normal operating and postulated main steam line break differential pressures and no burst was observed at pressures corresponding to three times normal operating differential pressure.

As a result of the recent Indian Point 2 expedience, KNPP employed a zero tolerance threshold on data quality for the U-bend examination. Any probe skip, probe stall, or other reduction in sampling rate in the U-bend region for either the mid or high frequency +Point examinations would be cause to reject the data and re-examine the tube. As a result, 49 tubes (9 in row 1, 37 in row 2, 3 in row 3) were plugged as a precautionary measure because of data quality issues. An additional 25 open row 1 tubes were removed from service as a preventative measure, despite having acceptable data and no indications in the U-bend region.

- 5) 100% RPC examination of all non-sleeved hot leg tubes, from the tube end to ~4 inches above the secondary face of the tubesheet. (833 tubes)

Of the 833 tubes examined, 15 tubes contained single or multiple axial crack-like indications requiring repair (1.8%). Of these 15 tubes, 5 were repaired by ABB using the sleeving technique. The remaining 10 were removed from service. By comparison, 45 tubes were reported during the 1998 inspection, 34 tubes were reported during the 1996 inspection and 45 tubes were reported during the 1995 inspection containing single or multiple axial crack-like indications requiring repair. In addition, 2 tubes were reported with indications of possible loose parts. Subsequent visual examinations from the SG secondary side identified the presence of a hollow, cylindrical object wedged between the two tube locations. Retrieval attempts were unsuccessful and the two tubes were removed from service as a precautionary measure.

- 6) 22% plus point RPC examination of HEJ laser welded repaired sleeved tubes (78 tubes), and 20% ultrasonic examination of HEJ laser welded repaired sleeved tubes (72 tubes).

No tubes were reported with indications in the laser weld region. Ultrasonic examinations showed little to no change from the baseline ultrasonic data.

7) Augmented RPC testing at TSP intersections, as required by APC requirements.

Augmented RPC testing included plus point examinations of all dents greater than 5 volts, an RPC sampling of indications with a phase angle corresponding to a depth >40% throughwall and large mix residual signals. There were no indications reported in the dented tube intersections or in the large mix residuals. For those tubes RPC tested based on phase, all were reported containing indications suggestive of Outside Diameter Stress Corrosion Cracking (ODSCC), in which the 2 volt alternate repair criteria could be applied. No tubes were removed from service based on the augmented RPC test results.

Secondary Side Pressure Tests

Six tubes were observed with wetted hot leg tube ends during the initial hydrostatic leak test prior to the eddy current examinations. Subsequent eddy current examinations of these tube locations revealed no indications of tube degradation. These locations were plugged as a precautionary measure. A final pressure test upon completion of repairs was performed at ~125 psig secondary side pressure. Nine additional tubes were observed as being wetted at the tube end. All 9 locations contained Westinghouse HEJ sleeves and contained no evidence of tube degradation within the tube pressure boundary. These locations were plugged as a precautionary measure.

Total Tubes Requiring Repair

There were 112 total tubes requiring repair as a result of the inservice eddy current examination. The breakdown is as follows (1998 and 1996 results are also provided for comparison):

	<u>2000</u>	1998	<u>1996</u>
Bobbin Examination:	1	0	0
Westinghouse HEJ Sleeve Examination:	0	3	859
ABB Sleeve Examination:	0	0	2
Low Row U-bend examination:	79	1	2
Hot Leg Crevice Examination:	17	45	34
Cold Leg Crevice Examination:	NA	1	0
Westinghouse HEJ Laser Weld Repair Examination:	0	25	NA
Augmented TSP RPC Examination:	0	0	2
Secondary Side Pressure Test:	<u>15</u>	<u>0</u>	<u>0</u>
	112	75	899

### Tubesheet Crevice Recovery

Plugs were removed from 28 tube locations previously plugged for indications in the tubesheet crevice region. After plug removal, eddy current examinations were performed on the tubes to determine whether they could be returned to service by sleeving. Of the 28 locations, 18 had acceptable eddy current results to support sleeving. 3 of the 18 locations failed during the sleeving process (1 for channel head clearance limitations, 1 for lack of weld fusion, and 1 for a weld blowhole). A total of 15 tube locations were successfully sleeved.

### Tubesheet Sleeving

Of the 15 tubes with indications requiring repair as a result of tubesheet crevice degradation, 7 were reachable with 27" tubesheet sleeves. 1 location was rejected based on unacceptable ultrasonic examinations of the weld region, and 1 location was rejected based on unacceptable eddy current results. A total of 5 tubes were sleeved.

## STEAM GENERATOR B

### Eddy Current Examinations

- 1) 100% bobbin coil examination of all non-repaired tubing, from tube end to tube end (949 tubes), and 100% bobbin coil examination of all repaired (sleeved) tubing, from top of sleeve hot leg to tube end cold leg (1723 tubes).

Of the 2672 tubes examined (37,408 tube support plate intersections), there were 862 tube support plate indications reported in 523 tubes. No tubes were reported in excess of the Technical Specification plugging limit of two volts. The average voltage of 0.61 volts was about the same as the two previous inspections. The voltage range extended from a low of 0.11 volts to a high of 1.88 volts. One tube was excluded from application of the two volt alternate repair criteria as a result of not being able to examine this location with the required probe size. This tube was removed from service. There were 254 tubes with wear indications at the AVB's, none in excess of the TS plugging limit of 50% throughwall. The largest indication reported at an AVB location was 25% throughwall. In general, the AVB indications have not grown significantly over the past few cycles.

- 2) 100% plus point RPC examination of inservice Westinghouse HEJ sleeves, from the top of the sleeve to ~6 inches below the top of the HEJ (1371 tubes), and 20% plus point RPC examination of inservice HEJ sleeves, from ~6" below the top of the sleeve to the bottom of the sleeve (281 tubes).

Of the 1371 Westinghouse HEJ sleeves examined, 122 contained circumferential indications within the hardroll lower transition of the upper HEJ joint reported during the 1998 inspection and left in service under the HEJ L criterion. During the 2000 inspection, all 122 tubes were re-inspected and

all continue to meet the L criterion. Of the remaining 1249 HEJ sleeved tubes, 100 (8%) contained circumferential indications within the hardroll lower transition of the upper HEJ joint. This compares well with the 5.94% confirmation rate during the 1998 inspection. All but one location fell outside of the revised pressure boundary (i.e. >0.95 inches below the hardroll upper transition) and remain in service. In-situ pressure testing was performed for the one indication remaining inside the revised pressure boundary; no leakage was reported at pressures corresponding to normal operating and postulated main steam line break differential pressures and no burst was observed at pressures corresponding to three times normal operating differential pressure. This location was removed from service. No degradation was detected in the sleeve lower joints or the sleeve straight lengths.

- 3) 20% plus point RPC examination of inservice ABB welded sleeves, from the top of the sleeve to the bottom of the sleeve (13 tubes).

No degradation was detected in the ABB welded sleeves. This population included 27" tubesheet sleeves installed in 1992, 1997 and 1998.

- 4) 100% plus point RPC of open row 1 and row 2 U-bends, from 07H to 07C (74 tubes), and 20% plus point RPC of open row 3 U-bends, from 07H to 07C (13 tubes).

The population sampled included 7 row 1 tubes, 67 row 2 tubes and 13 row 3 tubes utilizing a mid-frequency +Point probe and a high frequency +Point probe. No indications of axially oriented Primary Water Stress Corrosion Cracking (PWSCC) were detected in the U-bend region. Two tubes contained multiple axially oriented OD indications in the U-bend region in row 3. The signal characteristics were not typical of ODSCC and a historical review of the location of the signals showed that the signals had been present in previous inspections. These OD indications were also detected during the bobbin coil inspection and were removed from service. In-situ pressure testing was performed for all indications identified in the low row U-bends; no leakage was reported at pressures corresponding to normal operating and postulated main steam line break differential pressures and no burst was observed at pressures corresponding to three times normal operating differential pressure.

As a result of the recent Indian Point 2 expedience, KNPP employed a zero tolerance threshold on data quality for the U-bend examination. Any probe skip, probe stall, or other reduction in sampling rate in the U-bend region for either the mid or high frequency +Point examinations would be cause to reject the data and re-examine the tube. As a result, 5 tubes (1 in row 1, 4 in row 2) were plugged as a precautionary measure because of data quality issues. An additional 6 open row 1 tubes were removed from service as a preventative measure, despite having acceptable data and no indications in the U-bend region.

- 5) 100% RPC examination of all non-sleeved hot leg tubes, from the tube end to ~4 inches above the secondary face of the tubesheet. (949 tubes)

Of the 949 tubes examined, 5 tubes contained single or multiple axial crack-like indications

requiring repair (0.53%). Of these 5 tubes, 2 were repaired by ABB using the sleeving technique. The remaining 3 were removed from service. By comparison, 28 tubes were reported during the 1998 inspection, 18 tubes were reported during the 1996 inspection and 34 tubes were reported during the 1995 inspection containing single or multiple axial crack-like indications requiring repair.

- 7) 100% plus point RPC examination of all HEJ laser welded repaired sleeved tubes (288 tubes), 20% plus point RPC examination of HEJ laser welded repairs straight lengths (59 tubes), and 20% ultrasonic examination of laser weld repairs (62 tubes).

Two tubes were reported with indications in the laser weld region. As a result, scope was expanded to include 100% of the installed laser welded repaired HEJ sleeved tubes. No additional indications were reported. In-situ pressure testing was performed for the identified laser weld indications. No leakage was reported at pressures corresponding to normal operating and postulated main steam line break differential pressures and no burst was observed at pressures corresponding to three times normal operating differential pressure. These indications were removed from service. Review of historical data revealed that these signals were present in the 1998 data but were not reported. Ultrasonic examinations showed little to no change from the baseline ultrasonic data.

- 7) Augmented RPC testing at TSP intersections, as required by APC requirements.

Augmented RPC testing included plus point examinations of all dents greater than 5 volts, an RPC sampling of indications with a phase angle corresponding to a depth >40% throughwall and large mix residual signals. There were no indications reported in the dented tube intersections or in the large mix residuals. For those tubes RPC tested based on phase, all but three tubes were reported containing indications suggestive of Outside Diameter Stress Corrosion Cracking (ODSCC), in which the 2 volt alternate repair criteria could be applied. These 3 tubes were removed from service.

#### Secondary Side Pressure Tests

No tubes were observed with wetted hot leg tube ends during the initial hydrostatic leak test prior to the eddy current examinations. A final pressure test upon completion of repairs was performed at ~125 psig secondary side pressure. Two tubes were observed as being wetted at the tube end. Both locations contained Westinghouse HEJ sleeves and contained no evidence of tube degradation within the tube pressure boundary. These locations were plugged as a precautionary measure.



### Total Tubes Requiring Repair

There were 27 total tubes requiring repair as a result of the inservice eddy current examination. The breakdown is as follows (1998 and 1996 results are also provided for comparison):

	<u>2000</u>	1998	<u>1996</u>
Bobbin Examination:	1	1	5
Westinghouse HEJ Sleeve Examination:	1	5	547
ABB Sleeve Examination:	0	0	0
Low Row U-bend examination:	13	0	0
Hot Leg Crevice Examination:	5	28	18
Cold Leg Crevice Examination:	NA	0	0
Westinghouse HEJ Laser Weld Repair Examination:	2	5	NA
Augmented TSP RPC Examination:	3	1	2
Secondary Side Pressure Test:	<u>2</u>	<u>0</u>	<u>0</u>
	27	40	572

### Tubesheet Crevice Recovery

Plugs were removed from 27 tube locations previously plugged for indications in the tubesheet crevice region. After plug removal, eddy current examinations were performed on the tubes to determine whether they could be returned to service by sleeving. Of the 27 locations, 24 had acceptable eddy current results to support sleeving. 6 of the 24 locations failed during the sleeving process (1 for an aborted weld process, 3 for lack of weld fusion, and 2 for eddy current indications in the weld). A total of 18 tube locations were successfully sleeved.

### Tubesheet Sleeving

Of the 5 tubes with indications requiring repair as a result of tubesheet crevice degradation, 2 were reachable with 27" tubesheet sleeves. Both tubes were successfully sleeved.

## Final Numbers

		SG A	SG B
1	27" ABB Sleeves	119	84
2	39" ABB Welded Sleeves	363	0
3	Total ABB Sleeves (1+2)	482	84
4	27" W HEJ Sleeves (NDD)	196	150
5	30" W HEJ Sleeves (NDD)	78	275
6	36" W HEJ Sleeves (NDD)	227	715
7	Total HEJ Sleeves (NDD) (4+5+6)	501	1140
8	27" W HEJ Slvs (PTS)	25	12
9	30" W HEJ Slvs (PTS)	52	44
10	36" W HEJ Slvs (PTS)	312	168
11	Total HEJ Sleeves (PTS) (8+9+10)	389	224
12	30"W HEJ Slvs (HE LWR)	129	114
13	36"W HEJ Slvs (HE LWR)	141	79
14	Total HEJ Sleeves (HE LWR's) (12+13)	270	193
15	30" W HEJ Slvs (HR LWR)	9	13
16	36"W HEJ Slvs (HR LWR)	69	79
17	Total HEJ Sleeves (HR LWR's) (15+16)	78	92
18	Total HEJ Sleeves (LWR's) (14+17)	348	285
19	Tubes Plugged	892	723
20	Equivalent Plugs from W HEJ's $((7+11+18)/23)$	53.83	71.70
21	Equivalent Plugs from 27" ABB Sleeves $(3/23)$	20.96	3.65
22	Total Equivalent Plugs $(19+20+21)$	966.79	798.35
23	Tubes Open	776	932
24	% Plugged $(22/3388)$	28.54%	23.56%
25	Equivalent SGTP	26.05%	

TP Olson

## ATTACHMENT 7

Letter from K. H. Weinbauer (NMC)

To

Document Control Desk (NRC)

Dated

August 31, 2000

**NDE Data Sheets for 2000 Examinations Which Were Limited By Geometric,  
Metallurgical, or Design/Access Restrictions**

REV.: ORIG.

EXAMINER: L.R. DAVIS III DATE: 05-05-00  
LEVEL

Diagram of a composite beam cross-section. The top flange is 28 inches wide and 1/4 inch thick. The web is 1/4 inch thick and 3.75 inches high. The bottom flange is 14 inches wide and 1/4 inch thick. The section is labeled 'SG-W6'. The bottom flange is divided into six segments, each labeled 'C'.

A. 2" x 2" WELDED PAD ADJACENT TO WELD TOE @ 231" LIMITS SCANS 2, 5, 7, & 8 - 0°, 45°, & 60°

B. 143" x 2 1/2" INSULATION SUPPORT RING LIMITS SCAN 2 - 45° & 60°

C. 2" x 2" WELDED PAD 6.25" FROM WELD TOE @ 148", 172", 196", 216", 234", & 258" LIMITS SCAN 2 - 60°

PERCENTAGE OF PROCEDURAL/CODE LIMITATION: 9.5%

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bakes DATE: May 8, 2000

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Lozan M. M. M. M. DATE: 5-9-2000

**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 GENERATOR SG-1A

DRAWING NO.: M-1206

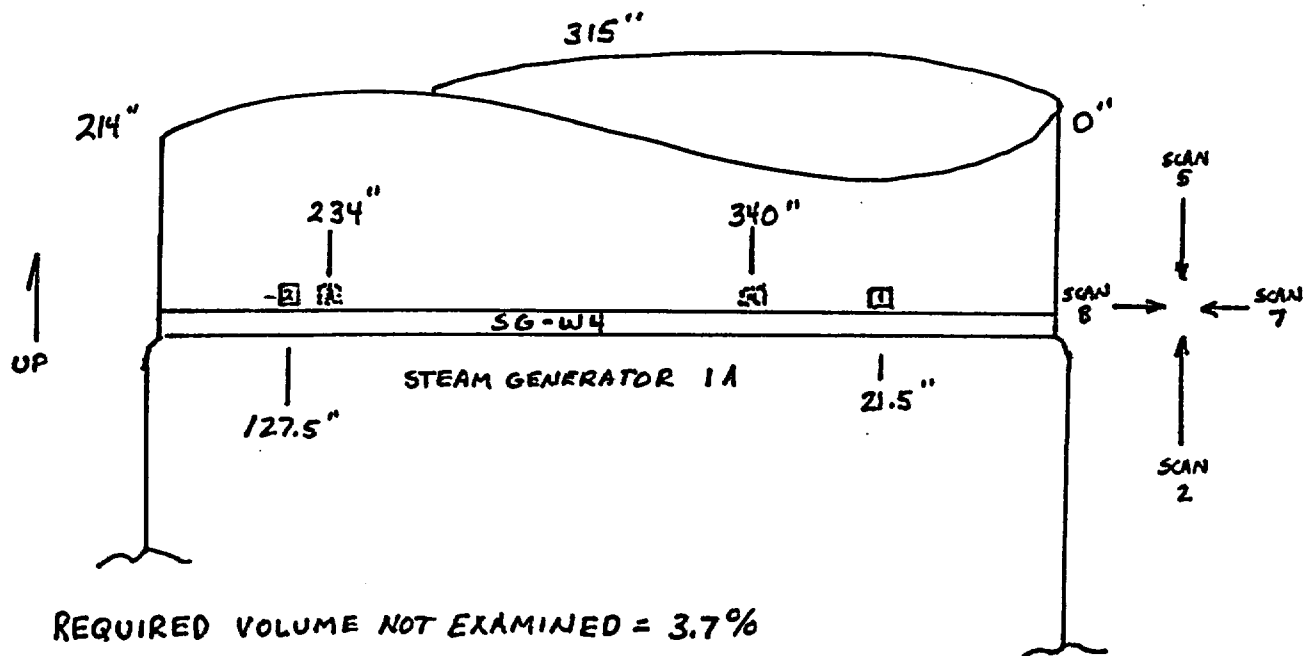
COMPONENT IDENTIFICATION: SG-W4 PROCEDURE: NEP No. 15.9 REVISION: ORIG.

ULTRASONIC: ☒ LIQUID PENETRANT: ☐ MAGNETIC PARTICLE: ☐ VISUAL: ☐

EXAMINER: L.R. DAVIS III DATE: 5-13-00  
LEVEL

EXAMINER: Timothy Lahan II DATE: 5-13-00  
LEVEL

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



REQUIRED VOLUME NOT EXAMINED = 3.7%

1. 2.5" X 2.5" WELDED PAD @ 21.5" CW FROM 0" @ TOE OF WELD
  2. 2.5" X 2.5" WELDED PAD @ 127.5" CW FROM 0" @ TOE OF WELD
  3. 2.5" X 2.5" WELDED PAD @ 234" CW FROM 0" @ TOE OF WELD
  4. 2.5" X 2.5" WELDED PAD @ 340" CW FROM 0" @ TOE OF WELD
- WELDED PADS, LIMITATION ON ALL SCANS 0°, 45° AND 60°

KEWAUNEE NUCLEAR  
POWER PLANT REVIEW: Phillip C. Bures DATE: May 15, 2000

AUTHORIZED NUCLEAR  
INSERVICE INSPECTOR REVIEW: Loren Mitgum DATE: 5-15-2000

**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.: 1SIM-1704

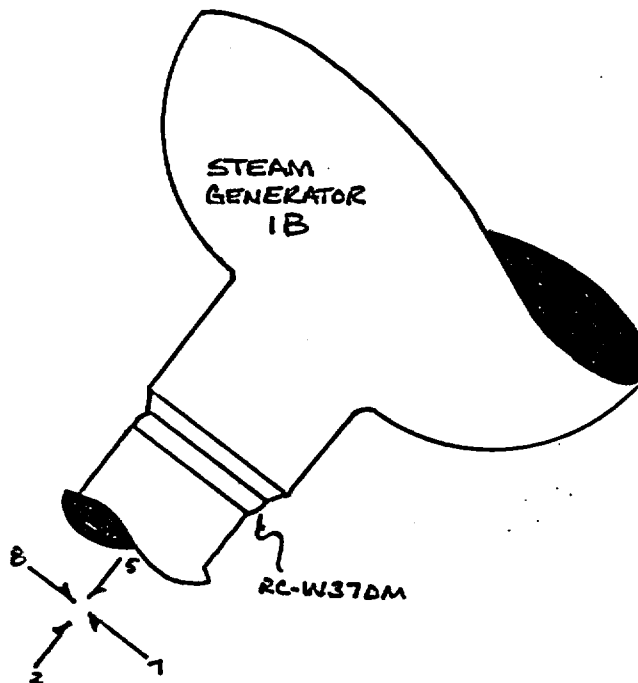
COMPONENT IDENTIFICATION: RC-W37DM PROCEDURE: NEPA 15.13 REVISION: A

ULTRASONIC: X LIQUID PENETRANT:        MAGNETIC PARTICLE:        VISUAL:       

EXAMINER: Jell O II DATE: 05/08/00  
LEVEL

EXAMINER: Lead. Thompson I DATE: 05/08/00  
LEVEL

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



NO SCAN 5. SCAN 7 & 8 LIMITED TO WELD & DOWNSTREAM BASE METAL ONLY DUE TO O.D. TAPER OF NOZZLE. WELD CROWN WIDTH: 2.6"

REDUCED PROCEDURAL COVERAGE: 58.0% ACTUAL LIMITATION: 42.0%

KEWAUNEE NUCLEAR POWER PLANT REVIEW: Phillip C. Bakes DATE: May 9, 2000

AUTHORIZED NUCLEAR INSERVICE INSPECTOR REVIEW: Boyer McGuire DATE: 5-9-2000

## **ATTACHMENT 8**

**Letter from K. H. Weinbauer (NMC)**

**To**

**Document Control Desk (NRC)**

**Dated**

**August 31, 2000**

**Reactor Vessel Incore Thimble Eddy Current Results**

## SUMMARY OF INCORE THIMBLE EDDY CURRENT RESULTS

In response to NRC Bulletin 88-09, WPSC committed to inspecting the incore thimbles at the KNPP. Results of the inspection with any corrective action or change in inspection frequency were to be reported in the annual ISI report. A summary of the inspection results is given below.

Wear (%)	Number of Thimbles				
	1993	1994	1995	1996	2000
1-19	6	1	1	2	1
20-29	14	5	8	4	6
30-39	12	13	12	12	12
40-49	3	15	12	13	14
50-59	0	1	2	4	2

Note: One thimble could not be inspected due to blockage and was isolated.

All damage was in the form of external wear located at the Lower Nozzle. Wear was not detected at any other location along the thimble tubes nor was there evidence of internal damage, cracking or pitting. The wear at the Lower Nozzle is due to vibrations of the tubes and has been recorded in past inspections.

In 1994, seven tubes were repositioned to move the wear scar away from the Lower Nozzle and arrest the wear damage. Later inspections indicated that the wear scars on the repositioned tubes had stopped progressing. Additionally, except for one tube, no new wear had initiated at the Lower Nozzle. On one tube, 15/K-7, wear did occur between 1994 and 1995 but did not progress from 1995 to 2000. The repositioned thimbles were at core positions G-6, G-9, I-5, G-4, K-7, C-11, and H-1.

Of the remaining 28 tubes, no tube recorded a significant increase in wall loss during the past cycle.

The inspection performed during the 2000 outage showed a minimal increase in wear. Future inspections will be performed as necessary due to the commitment made in response to NRC bulletin 88-09.

*Michael Ponski*  
*June 21, 2000*