

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest**Date:** 07/10/01**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Sheet:** 1 Of 12. **Plant:** Columbia Generating Station**Unit:** Not Applicable**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993523. **(a) Work Performed By:** Energy Northwest**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest**(c) Type Code Symbol Stamp:** Not Applicable**(d) Certificate Of Authorization No.:** Not Applicable**(e) Expiration Date:** Not Applicable4. **Identification Of System:** Main Steam (MS) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001C MS-RV-2C MS-RV-2C	WPPSS * Crosby Crosby	B22-G001C-P1 N63790-00-0134 N63790-03-0048 ** (N63790-00-0048) **	N/A N/A N/A	N/A N/A N/A	1983 1973 1980	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing relief valve MS-RV-2C. The replacement work was performed as follows:

- 1) Removed existing relief valve Serial No N63790-00-0134 with set pressure of 1175 Psig at rated temperature of 575° F.
- 2) Performed VT-1 visual examination on twelve (12) new nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
- 3) Installed replacement relief valve with Serial No N63790-03-0048 with set pressure of 1175 Psig at rated temperature of 575° F.
- 4) Installed VT-1 visually examined twelve (12) new nuts for the relief valve inlet joint. Note - None of the existing nuts were reused.
- 5) Installed sixteen (16) new bolts for the relief valve outlet joint. Note - None of the existing bolts were reused.
- 6) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve inlet joint. No evidence of leakage during the pressure test.

**NOTES-**

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement relief valve Serial No N63790-03-0048 was installed is Main Steam (MS) piping system B22-G001C-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0048 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) \*\* The replacement relief valve Serial No N63790-00-0048 was previously modified (upgraded) to Serial No N63790-03-0048 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The modification (upgrading) work was performed in accordance with NWS Technologies, LLC VR and NR programs and is documented in ASME Section XI Plan No 2-1700.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒  
 Test Pressure: 1022 Psig Test Temperature: 215° F  
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report for replacement relief valve Serial No N63790-03-0048, 2) See attached NV-1 Code Data Report for replacement relief valve Serial No N63790-00-0048, 3) \* The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Date 7/10/01

Date 7/10/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 7/24/01 to 7/24/01 and state 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.

[Signature]  
 Inspector's Signature

Commissions

7486/7486 NIS IS  
 National Board, State, and Endorsements

Date 7/24/01

PLAN No. 2-1709

FORM NVR-1 REPORT OF REPAIR ☒ REPLACEMENT ☒  
OF NUCLEAR PRESSURE RELIEF DEVICES

1. Work performed by: NWS Technologies, LLC Purchase Order # C31331 WRO # 008  
131 Venture Boulevard, Spartanburg, SC 29301
2. Work performed for: Energy Northwest - Columbia Generating Station
- 3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia Generating Station, North Power Plant Loop, Richland, WA 99352-0968
5. a: Repaired pressure relief device: Main Steam Safety Relief Valve  
b: Name of manufacturer: Crosby Valve & Gage Co.  
c: Identifying nos. old s/n: N63790-00-0048  
HB-65-BP-FN new s/n: N63790-03-0048 N/A steam 6 x 10 1980  
(type) (mfr's S/N) (NB#) (service) (size) (yr. built)  
d: Construction Code: ASME Sec. III Div. 1 1971 N/A 1567 & 1711 1  
(name/section/division) (edition) (addenda) (Code Cases(s)) (Code Class)
6. ASME Code Section XI applicable for inservice inspection: 1989 N/A N/A  
(edition) (addenda) (Code Case(s))
7. ASME Code Section XI used for repairs, replacements: 1989 N/A N/A  
(edition) (addenda) (Code Case(s))
8. Construction Code used for repairs, replacements: 1971 N/A N/A  
(edition) (addenda) (Code Case(s))
9. Design responsibilities: N/A
10. Opening pressure: 1175 psig  
Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

**CERTIFICATE OF COMPLIANCE**

I, Cesar V. Sierra certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacement of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

National Board Certificate of Authorization No. 632 to use the "VR" stamp expires April 3, 2003.

National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2003.

6/19/00 NWS Technologies, LLC Cesar V. Sierra Manager, QA  
Date Repair Organization Authorized representative Title

**CERTIFICATE OF INSPECTION**

I, Carl R. Enos holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of Tennessee and employed by Hartford Steam Boiler Inspection & Insurance Co. of Hartford, CT have inspected the repair, modification or replacement described in this report on 6/19/00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification or replacement described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

6/19/00 Carl R. Enos NB # 8460, A, N, I TN# 2236  
Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction & no.)

FORM NVR-1 Attachment (1 of 1)

1. Work performed by: NWS Technologies, LLC Purchase Order # C31331 WRO # 008  
131 Venture Boulevard, Spartanburg, SC 29301

2. Work performed for: Energy Northwest - Columbia Generating Station

3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia  
Generating Station, North Power Plant Loop, Richland, WA 99352-0968

Valve S/N: N63790-03-0048

The S/N for this valve was N63790-00-0048 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:

The valve was disassembled. The nozzle was removed and returned to site with the disc.

WNP-2 machined the nozzle to the new flexi-disc dimensions.

NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.

Disc S/N: N97499-34-0030 and Nozzle S/N: N97498-42-0104

(pre mod s/n N93184-42-0104)

were installed in the valve.

Both disc and nozzle were polished by NWS prior to installation.


Other parts replaced during the repair include:

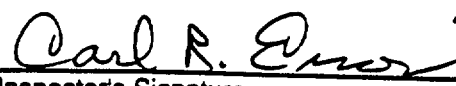
Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

Inlet Studs (2): H/C: N B7 HBW

After reassembly, the valve set-pressure was certified using steam as the lift medium. The valve failed the steam seat tightness test, was jacked and lapped to restore seat integrity and successfully seat tightness tested on steam.

6/19/00 NWS Technologies, LLC  Manager, QA  
Date (repair organization) (authorized representative) (title)

6/19/00  NB # 8460, A, N, I TN# 2236  
Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.)

**CROSBY****CROSBY VALVE & GAGE COMPANY**  
WRENTHAM, MASS*Quail Supl*  
7/10/01FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES  
As Required by the Provisions of the ASME Code Rules

Q.C.-44D

DATA REPORT  
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093  
Name and Address
- Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A  
General Electric Company, 175 Curtner Ave.,
2. Manufactured For San Jose, CA 95125 Order No. 205-AJ986  
Name and Address
3. Owner Washington Public Power Supply System, Richland, Washington 99352  
Name and Address
4. Location of Plant Hanford Reservation, Richland, Washington 99352
5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0048 Drawing No. DS-A-63790 Rev. C
- Type Safety Relief Orifice Size R Pipe Size 6 Inlet 6 Outlet 10  
Safety, Safety Relief, Pilot, Inlet 10 Inlet 10 Inlet 10 Inlet 10  
Power Actuated
6. Set Pressure (psig) 1175 575° F  
Rated Temperature
- Stamped Capacity 884,314 @ 3 X Overpressure -- Blowdown (psig) 2% to 11%
- Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve)  
1100 psig (Body Only)  
(Applicable to Valves for Closed Systems Only)

## Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. <del>Bar Stock &amp; Forgings</del>		
Body	<u>N93183-35-0067</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-35-0030</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. <del>Bar Stock &amp; Forgings</del>		
<del>Support</del> Disc Insert	<u>N93185-34-0079</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-33-0052</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder *K55484-35-0081	<u>*N89714-34-0126</u>	<u>AMS 5662B</u>
Spring Washers K62858-35-0030	<u>K62856-35-0086</u> <u>K62857-35-0051</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0055</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point K62873-35-0048	<u>*N89720-34-0065</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
c. Spring K62858-35-0030	<u>*N89722-0004</u>	<u>ASTM A304-66 Gr. 4161H</u>
d. Bolting		
Spindle Ball	<u>N93213-0048</u>	<u>Stellite #6</u>
e. <del>Bar Stock &amp; Forgings</del>		
Thrust Bearing Adapter	<u>N93409-32-0050</u>	<u>ASME SA193 Gr. B6</u>
Bonnet Stud (II7)	<u>N93207-0573 thru 0584</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut (J87)	<u>N93210-0793 thru 0804</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud (B76)	<u>N93216-0575 thru 0586</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Inlet Stud Nut (B78)	<u>N93218-0579 thru 0590</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>
Adjusting Bolt Button	<u>N93411-33-0056</u>	<u>ASME SA193 Gr. B6</u>

Valve originally built against Crosby Order No N103600, Assembly No. N56000. Valve modification consists of replacement of the Disc Insert, Nozzle, Bonnet Stud Nuts, Adjusting Bolt, and Thrust Bearing Adapter, remachining of the Body, Spring Washers, Bonnet, and Spindle Assembly, and adding an Adjusting Bolt Button Assembly. New Serialization is required unless indicated by an asterisk. Original nameplate removed and new nameplate attached.

NW3790-00-0048

#### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, 1971 Edition, Addenda No Addenda, Code Case No. 1567 & 1711. Class 1 (Date)

Date 11-5-80 Signed Crosby Valve & Gage Co. by R.A. Casanova (N Certificate Holder)

Our ASME Certificate of Authorization No. 1878 to use the NV symbol expires September 30, 1983. (Date)

#### CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

Stress analysis report (Class 1 only) on file at Crosby Valve & Gage Company  
43 Kendrick Street, Wrentham, Massachusetts 02093

Design specifications certified by<sup>1</sup> Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by<sup>1</sup> W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

<sup>1</sup>Signature not required - list name only.

DATE 11/24/80 BY R.A. CASANOVA  
FOR THE COMPANY

#### CERTIFICATE OF SHOP 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 Massachusetts and employed by Factory Mutual Systems\* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 11/24, 1980 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warrant, expressed or implied, concerning the equipment described in this Data 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.

Date 11/24 1980  
Signed John E. Morris (Inspector) Commissions MASS 1266 (Nat'l. Bd., State, Prov. and No.)

\*Arkwright-Boston Manufacturers Mutual Insurance Company - Mutual Boiler & Machinery Div.

2X00380114



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

1. **Owner:** Energy Northwest  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) **Work Performed By:** Energy Northwest  
 (b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest  
 (c) **Type Code Symbol Stamp:** Not Applicable  
 (d) **Certificate Of Authorization No.:** Not Applicable  
 (e) **Expiration Date:** Not Applicable
4. **Identification Of System:** Main Steam (MS) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda, Code Case: None  
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 07/10/01

Sheet: 1 Of 1

Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001C MS-RV-3C MS-RV-3C	WPPSS * Crosby Crosby	B22-G001C-P1 N63790-00-0138 N63790-03-0124 ** (N63790-00-0124) **	N/A N/A N/A	N/A N/A N/A	1983 1973 1981	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing relief valve MS-RV-3C. The replacement work was performed as follows:
- 1) Removed existing relief valve Serial No N63790-00-0138 with set pressure of 1185 Psig at rated temperature of 575° F.
  - 2) Performed VT-1 visual examination on twelve (12) new nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
  - 3) Installed replacement relief valve with Serial No N63790-03-0124 with set pressure of 1185 Psig at rated temperature of 575° F.
  - 4) Installed VT-1 visually examined twelve (12) new nuts for the relief valve inlet joint. Note - None of the existing nuts were reused.
  - 5) Installed sixteen (16) new bolts for the relief valve outlet joint. Note - None of the existing bolts were reused.
  - 6) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve inlet joint. No evidence of leakage during the pressure test.

**NOTES -**

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement relief valve Serial No N63790-03-0124 was installed is Main Steam (MS) piping system B22-G001C-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0124 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) \*\* The replacement relief valve Serial No N63790-00-0124 was previously modified (upgraded) to Serial No N63790-03-0124 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The modification (upgrading) work was performed in accordance with NWS Technologies, LLC VR and NR programs and is documented in ASME Section XI Plan No 2-1704.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒

Test Pressure: 1022 Psig

Test Temperature: 215° F

Component Design Pressure: 1250 Psig

Temperature: 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report for replacement relief valve Serial No N63790-03-0124, 2) See attached NV-1 Code Data Report for replacement relief valve Serial No N63790-00-0124, 3) \* The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date

7/12/01

Date

7/10/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/25/01 to 7/24/01 and state 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.

A.M. Foster  
Inspector's Signature

Commissions

7486W/7486 WIS I  
National Board, State, and Endorsements

Date

7/24/01

PLAN No. 2-1710

Reid's Corp  
7/10/01

- CERTIFICATE OF COMPLIANCE**
- I, Cesar V. Sierra certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacemtn of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.
- National Board Certificate of Authorization No. 632 to use the "VR" stamp expires April 3, 2003.
- National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2003.
- 6/19/00 NWS Technologies, LLC *Cesar V. Sierra* Manager, QA
- Date Repair Organization Authorized representative Title

I, Carl R. Enos holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of Tennessee and employed by Hartford Steam Boiler Inspection & Insurance Co. of Hartford, CT have inspected the repair, modification or replacement described in this report on 6/19/00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification or replacement described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

6/19/00 Carl R. Enos NB # 8460, A, N, I TN# 2236  
Date Inspector's Signature Commissions (NB (incl endorsements) jurisdiction & no.)

FORM NVR-1 Attachment (1 of 1)

1. Work performed by: NWS Technologies, LLC Purchase Order # C31331 WRO # 008  
131 Venture Boulevard, Spartanburg, SC 29301

2. Work performed for: Energy Northwest - Columbia Generating Station

3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia  
Generating Station, North Power Plant Loop, Richland, WA 99352-0968

Valve S/N: N63790-03-0124

The S/N for this valve was N63790-00-0124 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:

The valve was disassembled. The nozzle was removed and returned to site with the disc.

WNP-2 machined the nozzle to the new flexi-disc dimensions.

NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.

Disc S/N: N97499-32-0019 and Nozzle S/N: N97498-45-0115

(pre mod s/n N93184-45-0115)

were installed in the valve.

Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

Inlet Studs (3): H/C: N B7 KMY

After reassembly, the valve set-pressure was certified using steam as the lift medium.  
Seat tightness was acceptable post-certification.

6/19/00  
Date

NWS Technologies, LLC  
(repair organization)

  
(authorized representative)

Manager, QA  
(title)

6/19/00  
Date

  
Inspector's Signature

NB # 8460, A, N, I TN# 2236  
Commissions (NB (incl endorsements), jurisdiction & no.)

**CROSBY****CROSBY VALVE & GAGE COMPANY**

WRENTHAM, MASS

*Quincy Supb*  
7/10/79FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES  
As Required by the Provisions of the ASME Code Rules

Q.C.-44D

DATA REPORT  
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093  
Name and Address
- Model No. HB-65-BP-FN Order No. N94281 Contract Date 4/24/79 National Board No. N/A  
General Electric Company, 175 Curtner Ave.,
2. Manufactured For San Jose, CA 95125 Order No. 205-AJ986  
Name and Address
3. Owner Washington Public Power Supply System, Richland, Washington 99352  
Name and Address
4. Location of Plant Hanford Reservation, Richland, Washington 99352
5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0124 Drawing No. DS-A-63790 Rev. C  
Type Safety Relief Orifice Size R Pipe Size -- Inlet 6 Outlet 10  
Inch Inch Inch Inch  
Safety, Safety Relief, Pilot,  
Power Actuated
6. Set Pressure (psig) 1185 5750 F  
Rated Temperature
- Stamped Capacity 891,750 @ 3 X Overpressure -- Blowdown (psig) 2% to 11%
- Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve)  
1100 psig (Body Only)  
(Applicable to Valves for Closed Systems Only)

## Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. <del>Crosby</del> Bar Stock & Forgings		
Body	<u>N93183-36-0087</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-36-0098</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. <del>ASME</del> Disc Insert	<u>N93185-37-0156</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-33-0072</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder K55484-31-0005	<u>N89714-31-0008</u>	<u>AMS 5662B</u>
Spring Washers K62858-36-0081	<u>K62856-36-0116</u> <u>K62857-36-0130</u>	<u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0072</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point K62873-37-0136	<u>N89720-43-0157</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
c. Spring K62858-36-0081	<u>NX2689-0126</u>	<u>ASTM A304-66 Gr. 4161H</u>
d. Bolting		
e. <del>Crosby</del> Spindle Ball	<u>K62873-37-0136</u> <u>N93213-0203</u>	<u>Stoody #6</u>
Thrust Bearing Adapter	<u>N93409-32-0065</u>	<u>ASME SA193 Gr. B6</u>
Bonnet Stud (BW19)	<u>N93207-1522 thru 1533</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut (J87)	<u>N93210-1033 thru 1044</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud (BW21)	<u>N93216-1455 thru 1466</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Inlet Stud Nut (BW22)	<u>N93218-1389 thru 1400</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>
Adjusting Bolt Button	<u>N93411-33-0094</u>	<u>ASME SA193 Gr. B6</u>

752518-33-0004

- Valve originally built against Crosby Order No. N51727, Assembly No. N56000. Valve modification consists of replacement of the Disc Insert, Nozzle Bonnet Stud Nuts, Adjusting Bolt and Thrust Bearing Adapter, remachining of the Body, Spring Washers, Bonnet, and Spindle Assembly, and adding an Adjusting Bolt Button Assembly. New Serialization is required unless indicated by an asterisk.
- Original nameplate removed and new nameplate attached.

N63790-00-0124

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, 1971 Edition, Addenda No Addenda, Code Case No. 1567 & 1711.  
Class 1 (Date)

Date 11-5-80 Signed Crosby Valve & Gage Co. by R.G. Casavant  
(N Certificate Holder)

Our ASME Certificate of Authorization No. 1878 to use the NV  
symbol expires September 30, 1983.  
(Date)

### CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

Stress analysis report (Class 1 only) on file at Crosby Valve & Gage Company  
43 Kendrick Street, Wrentham, Massachusetts 02093

Design specifications certified by <sup>1</sup> Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by <sup>1</sup> W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

<sup>1</sup>Signature not required - list name only.

### CERTIFICATE OF SHOP 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 Massachusetts and employed by Factory Mutual Systems\* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 1/13, 19 81 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warrant, expressed or implied, concerning the equipment described in this Data 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.

Date 1/13 19 81

Signed John P. [Signature] Commissions MASS 126 F  
(Inspector) (Nat'l. Bd., State, Prov. and No.)

\*Arkwright-Boston Manufacturers Mutual Insurance Company - Mutual Boiler & Machinery Div.



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**Date:** 07/10/01

**Sheet:** 1 Of 1

**Unit:** Not Applicable

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Main Steam (MS) System

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001A MS-RV-1A MS-RV-1A	WPPSS * Crosby Crosby	B22-G001A-P1 N63790-03-0122 N63790-03-0047 ** (N63790-00-0047) **	N/A N/A N/A	N/A N/A N/A	1983 1981 1981	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

**7. Description Of Work Performed:** Replaced existing relief valve MS-RV-1A. The replacement work was performed as follows:

- 1) Removed existing relief valve Serial No N63790-03-0122 with set pressure of 1175 Psig at rated temperature of 575° F.
- 2) Performed VT-1 visual examination on twelve (12) new nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
- 3) Installed replacement relief valve with Serial No N63790-03-0047 with set pressure of 1175 Psig at rated temperature of 575° F.
- 4) Installed VT-1 visually examined twelve (12) new nuts for the relief valve inlet joint. Note - None of the existing nuts were reused.
- 5) Installed sixteen (16) new bolts for the relief valve outlet joint. Note - None of the existing bolts were reused.
- 6) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve inlet joint. No evidence of leakage during the pressure test.

**NOTES-**

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement relief valve Serial No N63790-03-0047 was installed is Main Steam (MS) piping system B22-G001A-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0047 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) \*\* The replacement relief valve Serial No N63790-00-0047 was previously modified (upgraded) to Serial No N63790-03-0047 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The modification (upgrading) work was performed in accordance with NWS Technologies, LLC VR and NR programs and is documented in ASME Section XI Plan No 2-1699.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒  
 Test Pressure: 1022 Psig Test Temperature: 215° F  
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report for replacement relief valve Serial No N63790-03-0047, 2) See attached NV-1 Code Data Report for replacement relief valve Serial No N63790-00-0047, 3) \* The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 7/10/01 Date 7/10/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 7/24/01 to 7/24/01 and state 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.

A. M. Fent Commissions 7486W/7486 NIS I.  
 Inspector's Signature National Board, State, and Endorsements

Date 7/24/01


PLAN No. 2-1711

Deirdre Swift  
7/10/01

- 12. Remarks:** See attachment 1.

I, Cesar V. Sierra certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacement of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2003.

6/19/00 NWS Technologies, LLC  Manager, QA  
Date Repair Organization Authorized representative Title

I, Carl R. Enos holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of Tennessee and employed by Hartford Steam Boiler Inspection & Insurance Co. of Hartford, CT have inspected the repair, modification or replacement described in this report on 6/19/00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification or replacement described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

6/19/00  
Date

Carl R. Enns  
Inspector's Signature

NB # 8460, A, N, I TN# 2236  
Commissions (NB (incl endorsements), jurisdiction & no )

FORM NVR-1 Attachment (1 of 1)

1. Work performed by: NWS Technologies, LLC Purchase Order # C31331 WRO # 008  
131 Venture Boulevard, Spartanburg, SC 29301

2. Work performed for: Energy Northwest - Columbia Generating Station

3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia  
Generating Station, North Power Plant Loop, Richland, WA 99352-0968

Valve S/N: N63790-03-0047

The S/N for this valve was N63790-00-0047 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:

The valve was disassembled. The nozzle was removed and returned to site with the disc.

WNP-2 machined the nozzle to the new flexi-disc dimensions.

NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.

Disc S/N: N97499-34-0029 and Nozzle S/N: N97498-44-0114

(pre mod s/n N93184-44-0114)

were installed in the valve.

Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

Spindle: New S/N: K82137-33-0011 (old S/N: K82137-34-0015)

Inlet Studs (2): H/C: N B7 HBW

After reassembly, the valve set-pressure was certified using steam as the lift medium. The valve failed the steam seat tightness test, was jacked and lapped to restore seat integrity and successfully seat tightness tested on steam.

6/19/00  
Date

NWS Technologies, LLC  
(repair organization)

  
(authorized representative)

Manager, QA  
(title)

6/19/00  
Date

  
Inspector's Signature

NB # 8460, A, N, I TN# 2236

Commissions (NB (incl endorsements), jurisdiction, & no.)

**CROSBY****CROSBY VALVE & GAGE COMPANY**  
WRENTHAM, MASS PLAN No. 2-1711FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES  
As Required by the Provisions of the ASME Code Rules

Q.C.-44D

**DATA REPORT**  
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093  
Name and Address
- Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A  
General Electric Company, 175 Curtner Ave.,
2. Manufactured For San Jose, CA 95125 Order No. 205-AJ986  
Name and Address
3. Owner Washington Public Power Supply System, Richland, Washington 99352  
Name and Address
4. Location of Plant Hanford Reservation, Richland, Washington 99352
5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0047 Drawing No. DS-A-63790 Rev. C  
Type Safety Relief Orifice Size R Pipe Size -- Inlet 6 Outlet 10  
Safety, Safety Relief, Pilot, Inch Inch Inch Inch  
Power Actuated
6. Set Pressure (psig) 1175 575° F  
Rated Temperature
- Stamped Capacity 884,314 @ 3 Overpressure -- Blowdown (psig) 2% to 11%  
975 psig (Assembled Valve)
- Hydrostatic Test (psig) Inlet 2370 Outlet 1100 psig (Body Only)  
(Applicable to Valves for Closed Systems Only)

## Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. <del>Bar Stock &amp; Forgings</del>		
Body	<u>N93183-35-0066</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-35-0029</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. <del>Disc &amp; Disc Insert</del>		
<del>Disc</del> Disc Insert	<u>N93185-34-0078</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-32-0049</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder *K55484-35-0098	<u>*N89714-34-0136</u>	<u>AMS 5662B</u>
Spring Washer *K62858-35-0029	<u>K62856-35-0085</u> <u>K62857-35-0050</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0054</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point K62873-37-0148	<u>N89720-43-0147</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
c. Spring K62858-35-0029	<u>*N89722-0003</u>	<u>ASTM A304-66 Gr. 4161 H</u>
d. Bolting		
Spindle Bolt K62873-37-0148	<u>N93213-0215</u>	<u>Stoody #6</u>
e. Thrust Bearing Adapter	<u>N93409-32-0049</u>	<u>ASME SA193 Gr. B6</u>
Bonnet Stud (BW5, I17)	<u>N93207-0561 thru 0572</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut (J87)	<u>N93210-0781 thru 0792</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud (BW6)	<u>N93216-0563 thru 0574</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Inlet Stud Nut (BW8)	<u>N93218-0567 thru 0578</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>
Adjusting Bolt Button	<u>N93411-33-0055</u>	<u>ASME SA193 Gr. B6</u>

Valve originally built against Crosby Order No. N103600, Assembly No N56000. Valve modification consists of replacement of the Disc Insert, Nozzle, Bonnet Stud Nuts, Adjusting Bolt, and Thrust Bearing Adapter, remachining of the Body, Spring Washers, Bonnet, and Spindle Assembly, and adding an Adjusting Bolt Button Assembly. New serialization is required unless indicated by an asterisk.  
Original nameplate removed and new nameplate attached.

MS 24-26  
Ruled up 6/14/88  
NW 3790-00-0047

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, 1971 Edition, Addenda No Addenda, Code Case No. 1567 & 1711.  
Class 1 (Date)

Date 11-5-80 Signed Crosby Valve & Gage Co. by R.D. Casanova  
(N Certificate Holder)

Our ASME Certificate of Authorization No. 1878 to use the NV  
symbol expires September 30, 1983.  
(Date)

### CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

Stress analysis report (Class 1 only) on file at Crosby Valve & Gage Company

43 Kendrick Street, Wrentham, Massachusetts 02093

Design specifications certified by 1 Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by 1 W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

Signature not required - list name only.

### CERTIFICATE OF SHOP 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 Massachusetts and employed by Factory Mutual Systems\* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 1/9, 1981 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warrant, expressed or implied, concerning the equipment described in this Data 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.

Date 1/9 1981

Signed John D. Dumas Commissions MASS 1269  
(Inspector) (Nat'l. Bd., State, Prov. and No.)

FOR INFORMATION ONLY

\*Arkwright-Boston Manufacturers Mutual Insurance Company - Mutual Boiler & Machinery Div.

ZX00380111

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Main Steam (MS) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001B MS-RV-3B MS-RV-3B	WPPSS * Crosby Crosby	B22-G001B-P1 N63790-03-0051 N63790-03-0053 ** (N63790-00-0053) **	N/A N/A N/A	N/A N/A N/A	1983 1981 1980	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing relief valve MS-RV-3B. The replacement work was performed as follows:

- 1) Removed existing relief valve Serial No N63790-03-0051 with set pressure of 1185 Psig at rated temperature of 575° F.
- 2) Performed VT-1 visual examination on twelve (12) new nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
- 3) Installed replacement relief valve with Serial No N63790-03-0053 with set pressure of 1185 Psig at rated temperature of 575° F.
- 4) Installed VT-1 visually examined twelve (12) new nuts for the relief valve inlet joint. Note - None of the existing nuts were reused.
- 5) Installed sixteen (16) new bolts for the relief valve outlet joint. Note - None of the existing bolts were reused.
- 6) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve inlet joint. No evidence of leakage during the pressure test.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement relief valve Serial No N63790-03-0053 was installed is Main Steam (MS) piping system B22-G001B-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0053 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) \*\* The replacement relief valve Serial No N63790-00-0053 was previously modified (upgraded) to Serial No N63790-03-0053 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The modification (upgrading) work was performed in accordance with NWS Technologies, LLC VR and NR programs and is documented in ASME Section XI Plan No 2-1701.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒

Test Pressure: 1022 Psig

Test Temperature: 215° F

Component Design Pressure: 1250 Psig

Temperature: 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report for replacement relief valve Serial No N63790-03-0053, 2) See attached NV-1 Code Data Report for replacement relief valve Serial No N63790-00-0053, 3) \* The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date 7/10/01

Date 7/10/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/25/01 to 7/24/01 and state 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.

A. M. Fort  
Inspector's Signature

Commissions 7486W/7486 NIS IS  
National Board, State, and Endorsements

Date 7/24/01

PLAN No. 2-1712

**FORM NVR-1 REPORT OF REPAIR ☒ REPLACEMENT ☒**  
**OF NUCLEAR PRESSURE RELIEF DEVICES**

1. Work performed by: **NWS Technologies, LLC** Purchase Order # **C31331 WRO #008**  
 131 Venture Boulevard, Spartanburg, SC 29301
2. Work performed for: **Energy Northwest - Columbia Generating Station**
- 3/4. Owner - name, address and identification of nuclear power plant: **Energy Northwest - Columbia Generating Station, North Power Plant Loop, Richland, WA 99352-0968**
5. a: Repaired pressure relief device: **Main Steam Safety Relief Valve**  
 b: Name of manufacturer: **Crosby Valve & Gage Co.**  
 c: Identifying nos. old s/n: **N63790-00-0053**  
 HB-65-BP-FN new s/n: **N63790-03-0053** N/A steam 6 x 10 1980  
 (type) (mfr's S/N) (NB#) (service) (size) (yr. built)  
 d: Construction Code: **ASME Sec. III Div. 1** 1971 N/A 1567 & 1711 1  
 (name/section/division) (edition) (addenda) (Code Case(s)) (Code Class)
6. ASME Code Section XI applicable for inservice inspection: 1989 N/A N/A  
 (edition) (addenda) (Code Case(s))
7. ASME Code Section XI used for repairs, replacements: 1989 N/A N/A  
 (edition) (addenda) (Code Case(s))
8. Construction Code used for repairs, replacements: 1971 N/A N/A  
 (edition) (addenda) (Code Case(s))
9. Design responsibilities: **N/A**
10. Opening pressure: **1185 psig**  
 Set-pressure adjustment made at: **NWS Technologies, LLC** using **steam**
11. Description of work (include name and identifying number of replacement parts): **See attachment 1.**
12. Remarks: **See attachment 1.**

**CERTIFICATE OF COMPLIANCE**

I, **Cesar V. Sierra** certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacement of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

National Board Certificate of Authorization No. **632** to use the "VR" stamp expires **April 3, 2003.**  
 National Board Certificate of Authorization No. **81** to use the "NR" stamp expires **April 9, 2003.**

**6/19/00** **NWS Technologies, LLC** *Cesar V. Sierra* **Manager, QA**  
 Date Repair Organization Authorized representative Title

**CERTIFICATE OF INSPECTION**

I, **Carl R. Enos** holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of **Tennessee** and employed by **Hartford Steam Boiler Inspection & Insurance Co. of Hartford, CT** have inspected the repair, modification or replacement described in this report on **6/19/00** and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification or replacement described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

**6/19/00** *Carl R. Enos* **NB # 8460, A, N, I TN# 2236**  
 Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction & no )

FORM NVR-1 Attachment (1 of 1)

1. Work performed by: NWS Technologies, LLC Purchase Order # C31331 WRO # 008  
131 Venture Boulevard, Spartanburg, SC 29301

2. Work performed for: Energy Northwest - Columbia Generating Station

3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia  
Generating Station, North Power Plant Loop, Richland, WA 99352-0968

Valve S/N: N63790-03-0053

The S/N for this valve was N63790-00-0053 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:

The valve was disassembled. The nozzle was removed and returned to site with the disc.

WNP-2 machined the nozzle to the new flexi-disc dimensions.

NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.

Disc S/N: N97499-32-0020 and Nozzle S/N: N97498-50-0145

(pre mod s/n N93184-50-0145)

were installed in the valve.

Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

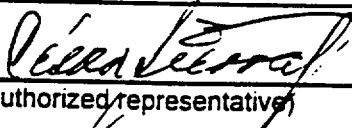
Inlet Studs (5): H/C: 4 studs - N B7 KMY, 1 stud - N B7 HBW

After reassembly, the valve set-pressure was certified using steam as the lift medium.  
Seat tightness was acceptable post-certification.

6/19/00

Date

NWS Technologies, LLC  
(repair organization)

  
(authorized representative)

Manager, QA  
(title)

6/19/00

Date

  
Inspector's Signature

NB # 8460, A, N, I TN# 2236

Commissions (NB (incl endorsements), jurisdiction & no )

**CROSBY**CROSBY VALVE & GAGE COMPANY  
WRENTHAM, MASSPLAN NO. 2-1112  
MS-RV-3B

Quincy, Mass

FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES  
As Required by the Provisions of the ASME Code, Rules

Q.C.-44D

DATA REPORT  
Safety and Safety Relief Valves**FOR INFORMATION ONLY**

1. Manufactured By <u>Crosby Valve &amp; Gage Company, 43 Kendrick St., Wrentham, MA 02093</u>		
Name and Address		
Model No. <u>RB-65-BP-FN</u>	Order No. <u>N94275</u>	Contract Date <u>4/24/79</u> National Board No. <u>N/A</u>
General Electric Company, 175 Curtner Ave.,		
2. Manufactured For <u>San Jose, CA 95125</u> Order No. <u>205-AJ986</u>		
Name and Address		
3. Owner <u>Washington Public Supply System, Richland, Washington 99352</u>		
Name and Address		
4. Location of Plant <u>Hanford Reservation, Richland, Washington 99352</u>		
5. Valve Identification <u>MPL #B22-F013</u> Serial No. <u>N63790-00-0053</u> Drawing No. <u>DS-A-63790 Rev. C</u>		
Type <u>Safety Relief</u>	Orifice Size <u>R</u>	Pipe Size <u>--</u> Inlet <u>6</u> Outlet <u>10</u>
<u>Safety, Safety Relief, Pilot,</u>	Inch	Inch Inch Inch
<u>Power Actuated</u>		
6. Set Pressure (psig) <u>1185</u>		<u>575°</u> F
		Rated Temperature
Stamped Capacity <u>891,750</u>	<u>a 3</u> Overpressure	<u>--</u> Blowdown (psig) <u>2% to 11%</u>
		<u>975 psig (Assembled Valve)</u>
Hydrostatic Test (psig) Inlet <u>2370</u>	Outlet <u>1100 psig (Body Only)</u>	(Applicable to Valves for Closed Systems Only)
Pressure Retaining Pieces		
	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings		
<del>Body</del>	<u>NB3183-35-0072</u>	<u>ASTM A105-71 Gr. II</u>
Body		<u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-35-0035</u>	<u>ASTM A105-71 Gr. II</u>
		<u>ASME SA105 Gr. II</u>
b. <del>Disc Holder</del>		
<del>Disc Insert</del>	<u>N93185-34-0085</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-33-0057</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder	<u>*N89714-34-0089</u>	<u>AMS 5662B</u>
	<u>K62856-35-0091</u>	<u>ASTM A105-71 Gr. II</u>
Spring Washers	<u>K62857-35-0056</u>	<u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0060</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point	<u>*N89720-34-0085</u>	<u>ASTM A564-71 Type 630</u>
	<u>*N89722-0011</u>	<u>ASME SA564 Type 630</u>
c. Spring	<u>K62858-35-0035</u>	<u>ASTM A304-66 Gr. 4161H</u>
d. Bolting		
Spindle Ball	<u>N93213-0053</u>	<u>7X00380127</u>
e. <del>Thrust Bearing Adapter</del>	<u>N93409-32-0055</u>	<u>Stellite #6</u>
Thrust Bearing Adapter		<u>ASME SA193 Gr. B6</u>
Bonnet Stud	<u>(I17, BW5) N93207-0633 thru 0644</u>	<u>ASTM A193-71 Gr. B7</u>
Bonnet Stud Nut	<u>(J87) N93210-0853 thru 0864</u>	<u>ASME SA193 Gr. B7</u>
Inlet Stud	<u>(BW6) N93216-0635 thru 0646</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud Nut	<u>(BW8) N93218-0639 thru 0650</u>	<u>ASTM A193-71 Gr. B7</u>
		<u>ASME SA194 Gr. 2H</u>
Adjusting Bolt Button	<u>N93411-33-0062</u>	<u>ASME SA193 Gr. B6</u>
<u>K63618-33-0062</u>		

Valve originally built against Crosby Order No. N103600, Assembly No. N56000. Valve modification consists of replacement of the Disc Insert, Nozzle, Bonnet Stud Nuts, Adjusting Bolt, and Thrust Bearing Adapter, remachining of the Body, Spring Washers, Bonnet, and Spindle Assembly, and adding an Adjusting Bolt Button Assembly. New serialization is required unless indicated by an asterisk. Original nameplate removed and new nameplate attached.

N43790-00-0053

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, 1971 Edition, Addenda No Addenda, Code Case No. 1567 & 1711 (Date)

Class 1

Date 11-5-80 Signed Crosby Valve & Gage Co. by P. G. P. (N Certificate Holder)

Our ASME Certificate of Authorization No. 1878 to use the NV symbol expires September 30, 1983 (Date)

### CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

Stress analysis report (Class 1 only) on file at Crosby Valve & Gage Company

43 Kendrick Street, Wrentham, Massachusetts 02093

Design specifications certified by<sup>1</sup> Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by<sup>1</sup> W. D. Greenlaw

PE State Massachusetts Reg. No. 14784

<sup>1</sup>Signature not required - list name only.

FOR INFORMATION ONLY

### CERTIFICATE OF SHOP 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 Massachusetts and employed by Factory Mutual Systems\* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 11/21, 1980 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warrant, expressed or implied, concerning the equipment described in this Data 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.

Date 11/21 1980

Signed John C. W. (Inspector)

Commissions MASS 1266 (Nat'l. Bd., State, Prov. and No.)

\*Arlwright-Boston Manufacturers Mutual Insurance Company - Mutual Boiler & Machinery Div.

ZX00380128



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

**1. Owner:** Energy Northwest

**Date:** 07/10/01

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Sheet:** 1 Of 1

**2. Plant:** Columbia Generating Station

**Unit:** Not Applicable

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Main Steam (MS) System

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001C MS-RV-1C MS-RV-1C	WPPSS * Crosby Crosby	B22-G001C-P1 N63790-03-0046 N63790-03-0045 ** (N63790-00-0045) **	N/A N/A N/A	N/A N/A N/A	1983 1981 1981	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

**7. Description Of Work Performed:** Replaced existing relief valve MS-RV-1C. The replacement work was performed as follows:

- 1) Removed existing relief valve Serial No N63790-03-0046 with set pressure of 1165 Psig at rated temperature of 575° F.
- 2) Performed VT-1 visual examination on twelve (12) new nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
- 3) Installed replacement relief valve with Serial No N63790-03-0045 with set pressure of 1165 Psig at rated temperature of 575° F.
- 4) Installed VT-1 visually examined twelve (12) new nuts for the relief valve inlet joint. Note - None of the existing nuts were reused.
- 5) Installed sixteen (16) new bolts for the relief valve outlet joint. Note - None of the existing bolts were reused.
- 6) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve inlet joint. No evidence of leakage during the pressure test.

**NOTES-**

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement relief valve Serial No N63790-03-0045 was installed is Main Steam (MS) piping system B22-G001C-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0045 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) \*\* The replacement relief valve Serial No N63790-00-0045 was previously modified (upgraded) to Serial No N63790-03-0045 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The modification (upgrading) work was performed in accordance with NWS Technologies, LLC VR and NR programs and is documented in ASME Section XI Plan No 2-1698.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒

Test Pressure: 1022 Psig

Test Temperature: 215° F

Component Design Pressure: 1250 Psig

Temperature: 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report for replacement relief valve Serial No N63790-03-0045, 2) See attached NV-1 Code Data Report for replacement relief valve Serial No N63790-00-0045, 3) \* The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date 7/10/01

Date 7/10/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 7/25/01 to 7/14/01 and state 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.

[Signature]  
Inspector's Signature

Commissions 7486 W/7486 NF IS  
National Board, State, and Endorsements

Date 7/14/01

PLAN NO. 2-1713

Quadruplets

12. Remarks: See attachment 1.

I, Cesar V. Sierra certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacement of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

6/19/00 NWS Technologies, LLC Pesent... Manager, QA  
Date Repair Organization Authorized representative Title

I, Carl R. Enos holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of Tennessee and employed by Hartford Steam Boiler Inspection & Insurance Co. of Hartford, CT have inspected the repair, modification or replacement described in this report on 6/19/00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

6/19/00 Carl R. Enos NB # 8460, A, N, I TN# 2236  
Date Inspector's Signature Commissions (NB (incl endorsements) jurisdiction & no

FORM NVR-1 Attachment (1 of 1)

1. Work performed by: NWS Technologies, LLC Purchase Order # C31331 WRO # 008  
131 Venture Boulevard, Spartanburg, SC 29301

2. Work performed for: Energy Northwest - Columbia Generating Station

3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia  
Generating Station, North Power Plant Loop, Richland, WA 99352-0968

Valve S/N: N63790-03-0045

The S/N for this valve was N63790-00-0045 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:

The valve was disassembled. The nozzle was removed and returned to site with the disc.

WNP-2 machined the nozzle to the new flexi-disc dimensions.

NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.

Disc S/N: N97499-32-0014 and Nozzle S/N: N97498-44-0108

(pre mod s/n N93184-44-0108)

were installed in the valve.

Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

After reassembly, the valve set-pressure was certified using steam as the lift medium.  
Seat Tightness was acceptable post-certification.

6/19/00 NWS Technologies, LLC  
Date (repair organization)

  
(authorized representative)

Manager, QA  
(title)

6/19/00 Carl R. Enos  
Date Inspector's Signature

NB # 8460, A, N, I TN# 2236  
Commissions (NB (incl endorsements), jurisdiction, & no.)

**CROSBY****CROSBY VALVE & GAGE COMPANY**  
WRENTHAM, MASSRush & Sons  
7/10/01FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES  
As Required by the Provisions of the ASME Code Rules

Q.C.-44D

DATA REPORT  
Safety and Safety Relief Valves**FOR INFORMATION ONLY**

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093  
Name and Address
- Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A  
General Electric Company, 175 Curtner Ave.,
2. Manufactured For San Jose, CA 95125 Order No. 205-AJ986  
Name and Address
3. Owner Washington Public Power Supply Systems, Richland, Washington 99352  
Name and Address
4. Location of Plant Hanford Reservation, Richland, Washington 99352
5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0045 Drawing No. DS-A-63790 Rev. C
- Type Safety Relief Orifice Size R Pipe Size -- Inlet 6 Outlet 10  
Safety, Safety Relief, Pilot, Inch Inch Inch Inch  
Power Actuated
6. Set Pressure (psig) 1150 5750 F  
Rated Temperature
- Stamped Capacity 865,725 @ 3 X Overpressure -- Blowdown (psig) 2% to 11%
- Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve)  
1100 psig (Body Only)  
(Applicable to Valves for Closed Systems Only)

## Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings		
Body	<u>N93183-35-0064</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-35-0027</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. <del>XXXXXXXXXXXXXXXXXXXX</del> <del>XXXXXXXXXXXX</del> Disc Insert	<u>N93185-34-0076</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-32-0047</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder *K55484-35-0092	<u>*N89714-34-0133</u>	<u>AMS 5662B</u>
Spring Washers K62858-35-0027	<u>K62856-35-0083</u> <u>K62857-35-0048</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0052</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point K62873-37-0146	<u>N89720-43-0143</u>	<u>ASME SA564 Type 630</u>
c. Spring K62858-35-0027	<u>NX2689-0123</u>	<u>ASTM A304-66 Gr. 4161H</u>
d. Bolting		<u>7X00380093</u>
e. <del>XXXXXXXXXXXX</del> Spindle Ball <del>XXXXXXXXXXXX</del> K62873-37-0146	<u>N93213-0213</u>	<u>Stoody #6</u>
Thrust Bearing Adapter	<u>N93409-32-0047</u>	<u>ASME SA193 Gr. B6</u>
Bonnet Stud (I17)	<u>N93207-0537 thru 0548</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut (J87)	<u>N93210-0757 thru 0768</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud (BW6)	<u>N93216-0539 thru 0550</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Inlet Stud Nut (BW8)	<u>N93218-0543 thru 0554</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>

Adjusting Bolt Button

N93411-32-0043

ASME SA193 Gr. B6

modification consists of replacement of the Disc Insert, Nozzle, Bonnet Stud Nuts, Adjusting Bolt, and Thrust Bearing Adapter, remachining of the Body, Spring Washers, Bonnet, and Spindle Assembly, and adding an Adjusting Bolt Button Assembly. New Serialization is required unless indicated by an asterisk. Original nameplate removed and new nameplate attached.

N63790-00-0045

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, 1971 Edition, Addenda No Addenda, Code Case No. 1567 & 1711.  
Class I (Date)  
Date 11-5-80 Signed Crosby Valve & Gage Co. by R. G. Casanova  
(N Certificate Holder)  
Our ASME Certificate of Authorization No. 1878 to use the NV  
symbol expires September 30, 1983.  
(Date)

### CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company  
Stress analysis report (Class 1 only) on file at Crosby Valve & Gage Company  
43 Kendrick Street, Wrentham, Massachusetts 02093  
Design specifications certified by <sup>1</sup> Boyd P. Brooks  
PE State California Reg. No. 13655  
Stress report certified by <sup>1</sup> W.D. Greenlaw  
PE State Massachusetts Reg. No. 14784

<sup>1</sup>Signature not required - list name only.

**FOR INFORMATION ONLY**

### CERTIFICATE OF SHOP 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 Massachusetts and employed by Factory Mutual Systems\* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 1/9, 1981 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warrant, expressed or implied, concerning the equipment described in this Data 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.

Date 1/9 1981

Signed J. Palmer Commissions MASS 1266  
(Inspector) (Nat'l. Bd., State, Prov. and No.)

\*Arkwright-Boston Manufacturers Mutual Insurance Company - Mutual Boiler & Machinery Div.

ZX00380214

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) **Work Performed By:** Energy Northwest  
 (b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest  
 (c) **Type Code Symbol Stamp:** Not Applicable  
 (d) **Certificate Of Authorization No.:** Not Applicable  
 (e) **Expiration Date:** Not Applicable
4. **Identification Of System:** Main Steam (MS) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda, Code Case: None  
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

**Date:** 07/10/01  
**Sheet:** 1 Of 1  
**Unit:** Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001D MS-RV-4D MS-RV-4D	WPPSS * Crosby Crosby	B22-G001D-P1 N63790-03-0060 N63790-03-0061 ** (N63790-00-0061) **	N/A N/A N/A	N/A N/A N/A	1983 1980 1980	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing relief valve MS-RV-4D. The replacement work was performed as follows:
- 1) Removed existing relief valve Serial No N63790-03-0060 with set pressure of 1205 Psig at rated temperature of 575° F.
  - 2) Performed VT-1 visual examination on twelve (12) new nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
  - 3) Installed replacement relief valve with Serial No N63790-03-0061 with set pressure of 1205 Psig at rated temperature of 575° F.
  - 4) Installed VT-1 visually examined twelve (12) new nuts for the relief valve inlet joint. Note - None of the existing nuts were reused.
  - 5) Installed sixteen (16) new bolts for the relief valve outlet joint. Note - None of the existing bolts were reused.
  - 6) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve inlet joint. No evidence of leakage during the pressure test.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement relief valve Serial No N63790-03-0061 was installed is Main Steam (MS) piping system B22-G001D-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0061 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) \*\* The replacement relief valve Serial No N63790-00-0061 was previously modified (upgraded) to Serial No N63790-03-0061 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The modification (upgrading) work was performed in accordance with NWS Technologies, LLC VR and NR programs and is documented in ASME Section XI Plan No 2-1703.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐  
 Test Pressure: 1022 Psig Test Temperature: 215° F  
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report for replacement relief valve Serial No N63790-03-0061, 2) See attached NV-1 Code Data Report for replacement relief valve Serial No N63790-00-0061, 3) \* The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Date 7/10/01

Date 7/10/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/25/01 to 7/11/01 and state 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.

[Signature]  
 Inspector's Signature

Commissions 7486 W / 7486 W I  
 National Board, State, and Endorsements

Date 7/11/01

PLAN No. Z-1714

Hardip Singh  
21/01/01

- |             |                        |                |             |
|-------------|------------------------|----------------|-------------|
| <u>N/A</u>  | <u>steam</u>           | <u>6 x 10</u>  | <u>1980</u> |
| NB#)        | (service)              | (size)         | (yr.built)  |
| <u>N/A</u>  | <u>1567 &amp; 1711</u> | <u>1</u>       |             |
| (addenda)   | (Code Case(s))         | (Code Class)   |             |
| <u>1989</u> | <u>N/A</u>             | <u>N/A</u>     |             |
| (edition)   | (addenda)              | (Code Case(s)) |             |
| <u>1989</u> | <u>N/A</u>             | <u>N/A</u>     |             |
| (edition)   | (addenda)              | (Code Case(s)) |             |
| <u>1971</u> | <u>N/A</u>             | <u>N/A</u>     |             |
| (edition)   | (addenda)              | (Code Case(s)) |             |

I, Cesar V. Sierra certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacement of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

6/19/00 NWS Technologies, LLC  
Date Repair Organization  
*Residential*  
Authorized representative  
Manager, QA  
Title

I, Carl R. Enos holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of Tennessee and employed by Hartford Steam Boiler Inspection & Insurance Co. of Hartford, CT have inspected the repair, modification or replacement described in this report on 6/19/00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

6/19/00 Date Carl R. Euse Inspector's Signature NB # 8460. A. N. I TN# 2236  
Commissions (NB (incl endorsements) jurisdiction & no )

FORM NVR-1 Attachment (1 of 1)

1. Work performed by: NWS Technologies, LLC Purchase Order # C31331 WRO # 008  
131 Venture Boulevard, Spartanburg, SC 29301

2. Work performed for: Energy Northwest - Columbia Generating Station

3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia  
Generating Station, North Power Plant Loop, Richland, WA 99352-0968

Valve S/N: N63790-03-0061

The S/N for this valve was N63790-00-0061 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:

The valve was disassembled. The nozzle was removed and returned to site with the disc.

WNP-2 machined the nozzle to the new flexi-disc dimensions.

NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.

Disc S/N: N97499-32-0015 and Nozzle S/N: N97498-33-0068

(pre mod s/n N93184-33-0068)

were installed in the valve.

Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

Inlet Studs (1): H/C: N B7 HBW

After reassembly, the valve set-pressure was certified using steam as the lift medium. Seat tightness was acceptable post-certification.

6/19/00  
Date

NWS Technologies, LLC  
(repair organization)

  
(authorized representative)

Manager, QA  
(title)

6/19/00  
Date

  
Inspector's Signature

NB # 8460, A, N, I TN# 2236  
Commissions (NB (incl endorsements), jurisdiction & no.)

AS-RV-5B

PLAN NO. 2-17114

Encl'd Sup's  
7/10/01

CROSBY		CROSBY VALVE & GAGE COMPANY WRENTHAM, MASS	
FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES As Required by the Provisions of the ASME Code Rules		C.C. -44D	
DATA REPORT Safety and Safety Relief Valves			
1. Manufactured By <u>Crosby Valve &amp; Gage Company, 43 Kendrick St., Wrentham, MA 02091</u> Name and Address			
Model No. <u>HB-65-3P-FN</u> Order No. <u>N94275</u> Contract Date <u>4/24/79</u> National Board No. <u>N/A</u> General Electric Company, 175 Curtner Ave., San Jose, CA 95125 Order No. <u>205-A1986</u>			
2. Manufactured For <u>San Jose, CA 95125</u> Name and Address			
3. Owner <u>Washington Public Power Supply System, Richland, Washington 99352</u> Name and Address			
4. Location of Plant <u>Sanford Reservation, Richland, Washington 99352</u>			
5. Valve Identification <u>MPI #R72-F013</u> Serial No. <u>N63790-00-0061</u> Drawing No. <u>DS-A-63790 Rev. C</u>			
Type <u>Safety Relief</u> Orifice Size <u>R</u> Pipe Size <u>--</u> Inlet <u>6</u> Outlet <u>10</u> Safety, Safety Relief, Pilot, Inch Inch Inch Inch Power Actuated			
6. Set Pressure (psig) <u>1205</u> <u>5750</u> F Rated Temperature			
Stamped Capacity <u>906.621</u> # <u>3</u> Overpressure <u>--</u> Blowdown (psig) <u>2% to 11%</u> 975 psig (Assembled Valve)			
Hydrostatic Test (psig) Inlet <u>2370</u> Outlet <u>1100</u> (Body Only) (Applicable to Valves for Closed Systems Only)			
Pressure Retaining Pieces			
	Serial No. Identification	Material Specification Including Type or Grade	
a. Bar Stock & Forgings			
Body	<u>N93183-35-0080</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>	
Bonnet	<u>N93407-35-0043</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>	
b. Disc Insert	<u>N93185-34-0093</u>	<u>ASME SA637 Gr. 716</u>	
Nozzle	<u>N93184-33-0065</u>	<u>ASME SA182 Gr. F316</u>	
Disc Holder	<u>*K55184-35-0087</u> <u>*N89714-34-0117</u>	<u>AMS 5662B</u> <u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>	
Spring Washers	<u>K62858-35-0043</u> <u>K62856-35-0099</u> <u>K62857-35-0064</u>	<u>ASTM A304-66 Gr. 4161B</u>	
Adjusting Bolt	<u>N93410-33-0068</u>	<u>ASME SA193 Gr. B6</u>	
Spindle Point	<u>K62873-35-0061</u> <u>*K89720-34-0072</u>	<u>ASTM A564-72 Type 630</u> <u>ASTM A564 Type 630</u>	
c. Spring	<u>K62858-35-0043</u> <u>*N89722-0019</u>	<u>ASTM A304-66 Gr. 4161B</u>	
d. Bolting			
Spindle Ball	<u>K62873-35-0061</u> <u>N93213-0061</u>	<u>Stellite #6</u>	
e. Thrust Bearing Adapter	<u>N93409-32-0063</u>	<u>ASME SA193 Gr. B6</u> <u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>	
Bonnet Stud	<u>(I17, N95) N93207-0729 thru 0740</u>	<u>ASME SA193 Gr. B7</u>	
Bonnet Stud Nut	<u>(I17) N93210-0949 thru 0960</u>	<u>ASME SA193 Gr. B7</u>	
Inlet Stud	<u>(B46) N93216-0731 thru 0742</u>	<u>ASME SA193 Gr. B7</u> <u>ASTM A193-71 Gr. B7</u>	
Inlet Stud Nut	<u>(B48) N93218-0735 thru 0745</u>	<u>ASME SA193 Gr. B7</u> <u>ASTM A193-71 Gr. B7</u>	
Adjusting Bolt	<u>N93411-33-0070</u>	<u>ASME SA193 Gr. B6</u>	
K63618-33-0070			

MADE  
1-28-81

FOR INFORMATION ONLY

ZX00383132

Valve originally built against Crosby Order No. N103600, Assembly No. N56000. Valve modification consists of replacement of the Disc Insert, Nozzle, Bonnet Stud Nuts, Adjusting Bolt, and Thrust Bearing Adapter, remachining of the Body, Spring Washers, Bonnet, and Spindle Assembly, and adding an Adjusting Bolt Button Assembly. New Serialization is required unless indicated by an asterisk. Original nameplate removed and new nameplate attached.

#### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, 1971 Edition, Addenda No Addenda, Code Case No. 1567 & 1711  
Class 1 (Date)

Date 11-5-80 Signed Crosby Valve & Gage Co. by P. A. Carver  
(N Certificate Holder)

Our ASME Certificate of Authorization No. 1878 to use the NV

symbol expires September 70, 1983  
(Date)

#### CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

Stress analysis report (Class 1 only) on file at Crosby Valve & Gage Company

43 Kendrick Street, Wrentham, Massachusetts 02093

Design specifications certified by 1 Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by 1 W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

<sup>1</sup>Signature not required - list name only.

#### CERTIFICATE OF SHOP 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 12-9-80 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warrant, expressed or implied, concerning the equipment described in this Data 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.

Date 12-9-80  
Signed [Signature] Commissions MARS 1266  
(Inspector) (Nat'l. Bd., State, Prov. and No.)

\*Arkwright-Boston Manufacturers Mutual Insurance Company - Mutual Boiler & Machinery Div.

FOR INFORMATION ONLY

3 4 5 6

7 8 9 10

11

ZX00383133

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) **Work Performed By:** Energy Northwest  
 (b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest  
 (c) **Type Code Symbol Stamp:** Not Applicable  
 (d) **Certificate Of Authorization No.:** Not Applicable  
 (e) **Expiration Date:** Not Applicable
4. **Identification Of System:** Main Steam (MS) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda, Code Case: None  
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 07/10/01

Sheet: 1 Of 1

Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001B MS-RV-1B MS-RV-1B	WPPSS * Crosby Crosby	B22-G001B-P1 N63790-03-0139 N63790-03-0140 ** (N63790-00-0140) **	N/A N/A N/A	N/A N/A N/A	1983 1976 1994	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing relief valve MS-RV-1B. The replacement work was performed as follows:

- 1) Removed existing relief valve Serial No N63790-03-0139 with set pressure of 1165 Psig at rated temperature of 575° F.
- 2) Performed VT-1 visual examination on twelve (12) new nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
- 3) Installed replacement relief valve with Serial No N63790-03-0140 with set pressure of 1165 Psig at rated temperature of 575° F.
- 4) Installed VT-1 visually examined twelve (12) new nuts for the relief valve inlet joint. Note - None of the existing nuts were reused.
- 5) Installed sixteen (16) new bolts for the relief valve outlet joint. Note - None of the existing bolts were reused.
- 6) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve inlet joint. No evidence of leakage during the pressure test.

### NOTES-

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement relief valve Serial No N63790-03-0140 was installed is Main Steam (MS) piping system B22-G001B-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0140 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) \*\* The replacement relief valve Serial No N63790-00-0140 was previously modified (upgraded) to Serial No N63790-03-0140 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The modification (upgrading) work was performed in accordance with NWS Technologies, LLC VR and NR programs and is documented in ASME Section XI Plan No 2-1707.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒

Test Pressure: 1022 Psig

Test Temperature: 215° F

Component Design Pressure: 1250 Psig

Temperature: 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report for replacement relief valve Serial No N63790-03-0140, 2) See attached NV-1 Code Data Report for replacement relief valve Serial No N63790-00-0140, 3) \* The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date 7/10/01

Date 7/10/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/25/01 to 7/11/01 and state 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.

[Signature]  
Inspector's Signature

Commissions 74866/7486 N.E.I.  
National Board, State, and Endorsements

Date 7/11/01

FORM NVR-1 REPORT OF REPAIR ☒ REPLACEMENT ☒  
OF NUCLEAR PRESSURE RELIEF DEVICES *Qui*

Quincy Smith  
7/10/01

1. Work performed by: NWS Technologies, LLC Purchase Order # C31331 WRO # 008  
131 Venture Boulevard, Spartanburg, SC 29301
2. Work performed for: Energy Northwest - Columbia Generating Station
- 3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia Generating Station, North Power Plant Loop, Richland, WA 99352-0968
5. a: Repaired pressure relief device: Main Steam Safety Relief Valve  
 b: Name of manufacturer: Crosby Valve & Gage Co.  
 c: Identifying nos. old s/n: N63790-01-0140  
HB-BP-65-DF new s/n: N63790-03-0140
- | (type)                | (mfr's S/N)                 | (NB#)       | (service)  | (size)                 | (yr.built)   |
|-----------------------|-----------------------------|-------------|------------|------------------------|--------------|
|                       |                             | N/A         | steam      | 6 x 10                 | 1994         |
| d: Construction Code: | <u>ASME Sec. III Div. 1</u> | <u>1971</u> | <u>N/A</u> | <u>1567 &amp; 1711</u> | <u>1</u>     |
|                       | (name/section/division)     | (edition)   | (addenda)  | (Code Cases(s))        | (Code Class) |
6. ASME Code Section XI applicable for inservice inspection:
- |             |            |                |
|-------------|------------|----------------|
| <u>1989</u> | <u>N/A</u> | <u>N/A</u>     |
| (edition)   | (addenda)  | (Code Case(s)) |
| <u>1989</u> | <u>N/A</u> | <u>N/A</u>     |
| (edition)   | (addenda)  | (Code Case(s)) |
| <u>1971</u> | <u>N/A</u> | <u>N/A</u>     |
| (edition)   | (addenda)  | (Code Case(s)) |
7. ASME Code Section XI used for repairs, replacements:
8. Construction Code used for repairs, replacements:
9. Design responsibilities: N/A
10. Opening pressure: 1165 psig  
 Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

# CERTIFICATE OF COMPLIANCE

I, Cesar V. Sierra certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacement of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules. National Board Certificate of Authorization No. 622

National Board Certificate of Authorization No. 632 to use the "VR" stamp expires April 3, 2003.  
 National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2003.

6/19/00      NWS Technologies, LLC  
Date      Repair Organization

\_\_\_\_\_ Authorized representative \_\_\_\_\_ Manager, QA  
\_\_\_\_\_ Title \_\_\_\_\_

# CERTIFICATE OF INSPECTION

I, Carl R. Enos holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of Tennessee and employed by Hartford Steam Boiler Inspection & Insurance Co. of Hartford, CT have inspected the repair, modification or replacement described in this report on 6/19/00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification or replacement described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

6/19/00  
Date

Carl R. E...  
Inspector's Signature

NB # 8460. A. N. I TN# 2236  
Commissions (NB incl endorsements) jurisdiction 3.00

FORM NVR-1 Attachment (1 of 1)

1. Work performed by: NWS Technologies, LLC Purchase Order # C31331 WRO # 008  
131 Venture Boulevard, Spartanburg, SC 29301

2. Work performed for: Energy Northwest - Columbia Generating Station

3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia  
Generating Station, North Power Plant Loop, Richland, WA 99352-0968

Valve S/N: N63790-03-0140

*01 @ 7/25/00 QRE*  
The S/N for this valve was N63790-00-0140 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:

The valve was disassembled. The nozzle was removed and returned to site with the disc.

WNP-2 machined the nozzle to the new flexi-disc dimensions.

NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.

Disc S/N: N97499-32-0016 and Nozzle S/N: N97498-33-0072

(pre mod s/n N93184-33-0072)

were installed in the valve.

Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

Inlet Studs (3): H/C: N B7 GQH

After reassembly, the valve set-pressure was certified using steam as the lift medium. The valve failed the steam seat tightness test, was jacked and lapped to restore seat integrity and successfully seat tightness tested on steam.

6/19/00  
Date

NWS Technologies, LLC  
(repair organization)

*Debra L. ...*  
(authorized representative)

Manager, QA  
(title)

6/19/00  
Date

*Carl R. Eason*  
Inspector's Signature

NB # 8460, A, N, I TN# 2236  
Commissions (NB (incl endorsements), jurisdiction, & no.)

CROSBY

CROSBY VALVE & GAGE COMPANY  
WRENTHAM, MA

PLAN No. 2-1715

Q.C.-44C-1

FORM NV-1, FOR SAFETY AND SAFETY RELIEF VALVES  
As Required by the Provisions of the ASME Code Rules  
DATA REPORT  
Safety and Safety Relief Valves

1. Manufactured by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093  
(Name and Address of N Certificate Holder)  
Model No. HB-65-BP Order No. NV4000468 Contract Date 24 JAN 1994 National Board No. ---
2. Manufactured for WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WA Order No. 238136 C/N 02  
(Name and Address)
3. Owner WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WA  
(Name and Address)
4. Location of Plant HANFORD # 2
5. Valve Identification B22-F013 Serial No. N63790-01-0140 Drawing No. DS-A-63790-1 REV 0  
Type MAIN STEAM Orifice Size 4.532 Pipe Size --- Inlet 6 Outlet 10  
(Safety, Safety Relief, Pilot, Power Actuated) (Inch) (Inch) (Inch) (Inch)
6. Set Pressure 1165.0 565 F  
Rated Temperature  
Stamped Capacity 876878 LB./HR. SAT. STM. @ 3 % Overpressure --- Blowdown (psig) 2 THRU 11  
Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 1100
7. The material, design, construction and workmanship comply with ASME Code, Section III.  
Class 1 Edition 1971, Addenda Date NO Case No. ---

	Serial No. Identification	Material Specification Including Type or Grade
a. Castings		
Body	<u>N93183-47-0130</u>	<u>ASTM A105 GR. II</u>
Bonnet	<u>N93407-47-0058</u>	<u>ASTM A105 GR. II</u>
b. Bar Stock & Forgings		
Support Rods	<u>N93184-53-0167</u>	<u>ASME SA182 GR. F316</u>
Nozzle	<u>N93185-52-0204</u>	<u>ASME SA637 GR. 718</u>
Disc	<u>N93186-41-0060</u>	
Spring Washers	<u>N93187-40-0007</u>	<u>ASTM A105 GR. II</u>
Adjusting Bolt	<u>N93410-33-0007</u>	<u>ASME SA193 GR. B6</u>
Spindle	<u>N98461-34-0015</u>	<u>ASTM A564 TYPE 630</u>
c. Spring	<u>NX2689-0138</u>	<u>ASTM A304 GR. 4161 H</u>
d. Bolting		
e. Other Pieces		
DISC HOLDER	<u>N89714-42-0279</u>	<u>AMS5662B (INCONEL 718)</u>
SPINDLE BALL	<u>N96460</u>	<u>ASTM A276 T440C</u>
ADJ BOLT BUTTON	<u>N93411-36-0015</u>	<u>ASME SA193 GR. B6</u>
THRUST BEARING ADAPTER	<u>N93409-35-0012</u>	<u>ASTM A193 GR. B6</u>
BONNET STUD	<u>N93207</u>	<u>ASTM A193 GR. B7</u>
BONNET NUT	<u>N93210</u>	<u>ASME SA194 CL. 2H</u>
INLET STUD	<u>N93216</u>	<u>ASTM A193 Gr. B7</u>
INLET NUT	<u>N93218</u>	<u>ASTM A194 CL. 2H</u>

We certify that the statements made in this report are correct.

Date 27 May 94 Signed Crosby Valve & Gage Company by Lawrence L. Lira  
 Manufacturer

Certificate of Authorization No. 1878 expires 30 SEP 95.

### CERTIFICATE OF SHOP 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 Massachusetts and employed by Arkwright-Boston Manufacturers Mutual Insurance Company have inspected the equipment described in this Data Report on May 27, 1994 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data 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.

Factory Mutual System

Date 5/27, 1994.

Signed Will P. G. L.

(Inspector)

Commissions M4455

(Nat'l. Bd., State, Prov. and No.)

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Main Steam (MS) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001C MS-RV-5C MS-RV-5C	WPPSS * Crosby Crosby	B22-G001C-P1 N63790-00-0135 N63790-03-0136 ** (N63790-00-0136) **	N/A N/A N/A	N/A N/A N/A	1983 1973 1973	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing relief valve MS-RV-5C. The replacement work was performed as follows:

- 1) Removed existing relief valve Serial No N63790-00-0135 with set pressure of 1205 Psig at rated temperature of 575° F.
- 2) Performed VT-1 visual examination on twelve (12) new nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
- 3) Installed replacement relief valve with Serial No N63790-03-0136 with set pressure of 1205 Psig at rated temperature of 575° F.
- 4) Installed VT-1 visually examined twelve (12) new nuts for the relief valve inlet joint. Note - None of the existing nuts were reused.
- 5) Installed sixteen (16) new bolts for the relief valve outlet joint. Note - None of the existing bolts were reused.
- 6) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve inlet joint. No evidence of leakage during the pressure test.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement relief valve Serial No N63790-03-0136 was installed is Main Steam (MS) piping system B22-G001C-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0136 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) \*\* The replacement relief valve Serial No N63790-00-0136 was previously modified (upgraded) to Serial No N63790-03-0136 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The modification (upgrading) work was performed in accordance with NWS Technologies, LLC VR and NR programs and is documented in ASME Section XI Plan No 2-1705.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐  
 Test Pressure: 1022 Psig Test Temperature: 215° F  
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report for replacement relief valve Serial No N63790-03-0136, 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) for relief valve Serial No N63790-00-0136, 3) See attached NV-1 (Pre - Modification) Code Data Report for relief valve Serial No N56000-02-0043, 4) \* The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 7/10/01 Date 7/10/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1-25-01 to 7/11/01 and state 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.

[Signature] Commissions 7486W/7486 NFI EI  
 Inspector's Signature National Board, State, and Endorsements

Date 7/11/01

FORM NVR-1 REPORT OF REPAIR ☒ REPLACEMENT ☒  
OF NUCLEAR PRESSURE RELIEF DEVICES

PURAN No. 2-1716

*Handwritten:* 7/10/01

1. Work performed by: NWS Technologies, LLC Purchase Order # C31331 WRO #.008  
131 Venture Boulevard, Spartanburg, SC 29301
2. Work performed for: Energy Northwest - Columbia Generating Station
- 3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia Generating Station, North Power Plant Loop, Richland, WA 99352-0968
5. a: Repaired pressure relief device: Main Steam Safety Relief Valve  
b: Name of manufacturer: Crosby Valve & Gage Co.  
c: Identifying nos. old s/n: N63790-00-0136  
HB-65-BP-FN new s/n: N63790-03-0136 N/A steam 6 x 10 1973 ~~1974~~ 7/25/00  
(type) (mfr's S/N) (NB#) (service) (size) (yr. built) *GRE*  
d: Construction Code: ASME Sec. III Div. 1 1971 N/A 1567 & 1711 1  
(name/section/division) (edition) (addenda) (Code Cases(s)) (Code Class)
6. ASME Code Section XI applicable for inservice inspection: 1989 N/A N/A  
(edition) (addenda) (Code Case(s))
7. ASME Code Section XI used for repairs, replacements: 1989 N/A N/A  
(edition) (addenda) (Code Case(s))
8. Construction Code used for repairs, replacements: 1971 N/A N/A  
(edition) (addenda) (Code Case(s))
9. Design responsibilities: N/A
10. Opening pressure: 1205 psig  
Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

I, Cesar V. Sierra certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacement of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

National Board Certificate of Authorization No. 632 to use the "VR" stamp expires April 3, 2003.

National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2003.

6/19/00 NWS Technologies, LLC Cesar V. Sierra Manager, QA  
Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Carl R. Enos holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of Tennessee and employed by Hartford Steam Boiler Inspection & Insurance Co. of Hartford, CT have inspected the repair, modification or replacement described in this report on 6/19/00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification or replacement described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

6/19/00 Carl R. Enos NB # 8460, A, N, I TN# 2236  
Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.)

FORM NVR-1 Attachment (1 of 1)

1. Work performed by: NWS Technologies, LLC Purchase Order # C31331 WRO # 008  
131 Venture Boulevard, Spartanburg, SC 29301

2. Work performed for: Energy Northwest - Columbia Generating Station

3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia  
Generating Station, North Power Plant Loop, Richland, WA 99352-0968

Valve S/N: N63790-03-0136

The S/N for this valve was N63790-00-0136 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:

The valve was disassembled. The nozzle was removed and returned to site with the disc.

WNP-2 machined the nozzle to the new flexi-disc dimensions.

NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.

Disc S/N: N97499-32-0017 and Nozzle S/N: N97498-44-0107

(pre mod s/n N93184-44-0107)

were installed in the valve.

Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

Inlet Studs (3): H/C: N B7 KMY

After reassembly, the valve set-pressure was certified using steam as the lift medium. Seat tightness was acceptable post-certification.

6/19/00  
Date

NWS Technologies, LLC  
(repair organization)

  
(authorized representative)

Manager, QA  
(title)

6/19/00  
Date

  
Inspector's Signature

NB # 8460, A, N, I TN# 2236

Commissions (NB (incl endorsements), jurisdiction & no.)

PLAN No. 2-1716

**CROSBY****CROSBY VALVE & GAGE COMPANY**  
**WRENTHAM, MA**Q.C.-292, REV.A  
SHEET 1 OF 2

PLAN No. 2-1005

Quaip Supb

3/10/94  
7/10/01**REPAIR AND REPLACEMENT**  
**TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS**1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093

(Name and Address)

(Repair organization's P.O. No., Job No., etc.) NV40000202. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0968

(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #24. Address of Nuclear Power Plant RICHLAND, WA5. a. Identifying Nos. N63790-00-0136 -- -- -- -- 1973  
(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)b. Identification of component repaired or replacement component --c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY6. Tests conducted: Hydrostatic (X) Pneumatic ( ) Design Pressure ( ) Pressure 2370.0 psi7. Identification of System MAIN STEAM8. Applicable Section(s) III of ASME Code, 19 71 EditionAddenda NOCode Case --9. Description of work N56000-02-0043 WAS MODIFIED TO N63790-00-0136  
(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)  
ASME SEC.XI.1980 EDITION WINTER 1980 ADDENDA.10. Remarks: THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:

PART	PART NO.	MODIFIED TO PART NO.
BODY	N90118	N93183-42-0125
BONNET	N89717	N93407-43-0054
SPINDLE ASSY	K55465	K62873-33-0006
SPR. WASHER	N89724	K62856-43-0202
SPR. WASHER	N89723	K62857-43-0202
SPRING ASSY	K55466	K62858-31-0005
PART	PART NO.	REPLACED WITH
NOZZLE	N89713	N93184-51-0153
DISC INSERT	N89715	N93185-52-0203
SPRING	NX2689	NX2689-0135
THR.BRG.ADAPT.	N89725	N93409-34-0009
ADJ.BOLT	N89726	N93410-31-0003
ADJ.BOLT BUTT. COMMERCIAL		N93411-33-0010
ADJ.BOLT ASSY COMMERCIAL		K63618-31-0003
INLET STUD	N89727	N93216/NAD QTY 10

2/23/74

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and all design, material, and workmanship on this  
MOD. conforms to the applicable section of the ASME Code.  
(repair/replacement)

Signed Lawrence J. Pina QA Eng Manager 24 Feb 1994  
(Authorized Rep. of Repair Organization) (Title) (Date)

**CERTIFICATE OF 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 Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

By signing this certificate, neither the Inspector nor his employer makes any warrant, expressed or implied, concerning the repair or replacement described in this 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.

Factory Mutual Systems

Date 2/25 1994  
Signed Walt Pella  
(Inspector)

Commissions M4155  
(Nat'l. Bd., State, Prov. and No.)

PLAN NO. 2-1716

Ready Rep's  
7/10/01

<u>WPPSS S/N</u>	<u>WPPSS Set</u>	<u>Bailly S/N</u>	<u>Bailly Set</u>
N63790-00-0134	1175	N56000-01-0037	1175
N63790-00-0135	1205	N56000-01-0099	1130
<del>N63790-00-0136</del>	<del>1205</del>	<del>N56000-02-0043</del>	<del>1205 /</del>
N63790-00-0137	1195	N56000-02-0042	1195
N63790-00-0138	1185	N56000-01-0038	1175
N63790-00-0139	1165	N56000-01-0100	1130

**CROSBY**CROSBY VALVE & GAGE COMPANY  
WRENTHAM, MASS

PLAN No. 2-1005

Buildup Emp 5

3/10/94

PLAN No. 2-1718

FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES  
As required by the Provisions of the ASME Code Rules

Q.C.-44A

DATA REPORT  
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093  
Name and Address
- Model No. HB-65-BP-FN Order No. N-105286 Contract Date 6/28/71  
General Electric Company
2. Manufactured For San Jose, California Order No. 205-AD148  
Name and Address
3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I.  
Name and Address Baileytown, Indiana
4. Location of Plant Baileytown, Indiana
5. Valve Identification MPL #B-22-F013 Serial No. N56000-02-0043 Drawing No. H-56000 Rev. C
- Type Safety Relief Orifice Size R Pipe Size -- Inlet 6 Outlet 10  
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch
6. Set Pressure (PSIG) 1205 575° F  
Rated Temperature
- Stamped Capacity 906250 Lbs. Hr. 3 % Overpressure -- Blowdown 5%  
Sat. Steam
- Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825
7. The material, design, construction and workmanship comply with ASME Code, Section III.
- Class 1 Edition 1971 Addenda Date Summer 1972  
XXXX

## Pressure Containing or Pressure Retaining Components

	Serial No. Identification	Material Specification Including Type or Grade
a. <del>XXXXXX</del> Forgings		
Body	<u>N89711-32-0025</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Bonnet <del>XXXXXX</del>	<u>N89717-32-0019</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
b. Bar Stock and Forgings		
<del>XXXXXX</del> Disc Insert	<u>N89715-31-0029</u>	<u>ASTM A-461-65 Type 630</u> <u>ASTM A-182-71 F316</u> <u>ASME SA-182 F316</u>
Nozzle	<u>N89713-32-0027</u>	
Disc Holder	<u>N89714-32-0043</u>	<u>AMS 5662 B</u>
Spring Washers Top	<u>N89724-32-0046</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Bottom	<u>N89723-31-0002</u>	
Adjusting <del>XXXXXX</del> Bolt	<u>N89726-34-0047</u>	<u>ASTM A-193-71 Gr. B6</u> <u>ASME SA-193 Gr. B6</u>
Spindle Point	<u>N89720-32-0035</u>	<u>ASTM A-564-72 Type 630</u>



3-3-75

	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring	<u>NX2689-0048</u>	<u>ASTM A-304-66 Gr. 4161H</u>
d. Bolting		
e. <del>XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX</del>		
Inlet Stud	<u>N89727-0505 thru 0516</u>	<u>ASTM A-193-71 Gr. B7</u> <u>ASME SA-193 Gr. B7</u>
Inlet Stud Nut	<u>N89728-0509 thru 0520</u>	<u>ASTM A-194-71 Cl. 2H</u> <u>ASME SA-194 Cl. 2H</u>
Bonnet Stud	<u>N89718-0509 thru 0520</u>	<u>ASTM A-193-71 Gr. B7</u> <u>ASME SA-193 Gr. B7</u>
Bonnet Stud Nut	<u>N89719-0511 thru 0522</u>	<u>ASTM A-194-71 Cl. 2H</u> <u>ASME SA-194 Cl. 2H</u>

#### OTHER PARTS

Spindle Ball	<u>N89721-0035</u>	<u>Stellite 6</u>
<b>BARS &amp; FORGINGS</b>		
Thrust Bearing Adapter	<u>N89725-32-0032</u>	<u>ASTM A-193-71 Gr. B6</u> <u>ASME SA-193 Gr. B6</u>

We certify that the statements made in this report are correct.

Date 10-31 19 73 Signed Crosby Valve & Gage Co. By [Signature]  
 Manufacturer QA Manager

Certificate of Authorization No. 331 expires November 9, 1974

#### CERTIFICATE OF SHOP 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 Mass. and employed by Mutual Boiler & Machinery Insurance Co., Waltham, Mass. have inspected the equipment described in this Data Report on October 31 1973 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data 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.

\*Factory Mutual Group of Insurance Co.

Date October 31 19 1973

[Signature]  
(Inspector)

Commissions N.B.C.C. 65 No. 1090  
 National Board, State, Province and No.



3-3-75

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Date:** 07/31/00

2. **Plant:** Columbia Generating Station

**Sheet:** 1 of 1

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Unit:** Not Applicable

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Reactor Feedwater (RFW) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1972 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RFW-V-32A	Anchor Darling	1N-109	N/A	N/A	1975	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Performed on-line leak seal for packing leak (stuffing box side of the valve) for valve RFW-V-32A. The work was performed as follows:

- 1) Drilled and tapped one (1) hole into the valve stuffing box area to install 3/8" injector (shutoff) adapter. See Note 1.
- 2) Installed one (1) 3/8" injector (shutoff) adapter in the valve stuffing box area. See Note 1.

### NOTES -

- 1) The ASME Section XI related work was to drill and tap the hole into the ASME pressure boundary (retaining) material. In accordance with PPM 1.3.30, the purpose of this ASME Section XI work plan was to document the size and location of the hole in the stuffing box where the injector (shutoff) adapter was installed and that the injector (shutoff) adapter was procured to QC 1 requirements.



PLAN No 2-1717

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)**

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None  
Test Pressure: Psig Test Temperature: °F  
Component Design Pressure: Psig Temperature: °F

9. Remarks: None

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)Signed By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)Date 7/31/00Date 7/31/00**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 of \_\_\_\_\_ and employed by \_\_\_\_\_

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period \_\_\_\_\_ to \_\_\_\_\_ and state 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.

Not Required - Replacement 1" NPS And Smaller

Inspector's Signature

Commissions

National Board, State, and Endorsements

Date \_\_\_\_\_

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993522. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993523. (a) **Work Performed By:** Energy Northwest(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest(c) **Type Code Symbol Stamp:** Not Applicable(d) **Certificate Of Authorization No.:** Not Applicable(e) **Expiration Date:** Not Applicable4. **Identification Of System:** Reactor Core Isolation Cooling (RCIC) System5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCIC(50)-1 RCIC-RV-19T RCIC-RV-19T	WPPSS * Crosby Crosby	RCIC(50)-1-P1 N63028-00-0002 N63028-00-0007	N/A N/A N/A	N/A N/A N/A	1983 1980 1994	----- Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

7. **Description Of Work Performed:** Replaced existing relief valve RCIC-RV-19T. The replacement work was performed as follows:

- 1) Removed existing relief valve RCIC-RV-19T, Serial No N63028-00-0002.
- 2) Performed VT-3 visual examination on the existing studs for the relief valve outlet joint. VT-3 visual examination results acceptable.
- 3) Performed VT-3 visual examination on the existing nuts for the relief valve outlet joint. VT-3 visual examination results acceptable.
- 4) Performed VT-3 visual examination on the existing studs for the relief valve inlet joint. VT-3 visual examination results acceptable.
- 5) Performed VT-3 visual examination on the existing nuts for the relief valve inlet joint. VT-3 visual examination results acceptable.
- 6) Installed replacement relief valve RCIC-RV-19T, Serial No N63028-00-0007.
- 7) Reinstalled VT-3 visually examined existing studs and nuts for the relief valve outlet joint.
- 8) Reinstalled VT-3 visually examined existing studs and nuts for the relief valve inlet joint.
- 9) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve inlet joint. No evidence of leakage during the pressure test.
- 10) Performed visual inspection for any obstruction to confirm open flow path for the relief valve outlet (discharge) port to satisfy ASME Section XI, IWC-5221(d) requirements.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system applicable to the replacement relief valve RCIC-RV-19T, Serial No N63028-00-0007 is Reactor Core Isolation Cooling (RCIC) piping system RCIC(50)-1-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The replacement relief valve RCIC-RV-19T, Serial No N63028-00-0007 is certified to comply with ASME Section III, Code Class 2, 1977 Edition with Summer 1977 Addenda requirements.
- 4) The existing relief valve Serial No N63028-00-0002 was originally procured for WNP-4 plant as 4MUS-V-133 but was approved for Columbia Generating Station (WNP-2) use as RCIC-RV-19T. The replacement relief valve N63028-00-0007 was procured under PO No 236808, Procurement Evaluation No 3455 for Columbia Generating Station (WNP-2) use.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐  
 Test Pressure: 69 Psig Test Temperature: 83.4° F  
 Component Design Pressure: 100 Psig Temperature: 170° F

9. Remarks: 1) See attached NV-1 Code Data Report for the replacement relief valve RCIC-RV-19T, Serial No N63028-00-0007.  
 2) Component design pressure of 100 Psig and design temperature of 170° F is for the relief valve inlet piping.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 7/17/01 Date 7/17/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/11/01 to 7/24/01 and state 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.

A. M. Foster Commissions 7486 W/7486 NIS IS.  
 Inspector's Signature National Board, State, and Endorsements

Date 7/24/01

**CROSBY****CROSBY VALVE & GAGE COMPANY  
WRENTHAM, MA**

PLAN No. 2-1718

Q.C.-44D-1A  
SHEET 1 OF 2**FORM NV-1, N CERTIFICATE HOLDERS' DATA REPORT FOR SAFETY AND SAFETY RELIEF VALVES**  
As Required by the Provisions of the ASME Code, Section III, Division 1

1. Manufactured by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093  
(Name and Address of N Certificate Holder)  
Crosby Factory Order No. NV4000256 Customer Order No. 236808
2. Manufactured for WASHINGTON PUBLIC POWER SUPPLY RICHLAND, WA 99352  
(Name and Address of Purchaser or Owner)
3. Location of Installation NUCLEAR PROJECT NO.1 RICHLAND, WA 99352  
(Name and Address)
4. DS-CA63028 REV.B 1994  
(CRN) (Drawing No.) (Nat'l Brd. No.) (Year Built)
5. Valve JO-25-WR Identifying Nos. N63028-00-0007  
(Model No., Series No.) (N Certificate Holder's Serial No.)  
Type RELIEF Valve I.D./Tag No. SPARE  
Orifice Size 1.363 Nominal Inlet Size 2 Outlet Size 3  
Inch Inch Inch
6. Set Pressure 99 120 F  
Rated Relieving Temperature  
Stamped Capacity 200 GPM WTR @ 70 DEG @ 10 % Overpressure = Blowdown (psig) 10% OF SP  
Hydrostatic Test (psig) Inlet 225 Outlet 100  
(Applicable to Valves for Closed Systems Only)

**PRESSURE RETAINING PIECES**

RCIC-RV-19T, SIN N63028-00-0007

Quoted Supp 6/12/01

	Serial No. Identification	Material Specification Including Type or Grade
a. Castings		
Body	<u>N93013-33-0007</u>	<u>ASME SA351 GR.CF8M</u>
Bonnet	<u>N93015-33-0007</u>	<u>ASME SA351 GR.CF8M</u>
b. Bar Stock & Forgings		
Nozzle	<u>N93014-34-0012</u>	<u>ASME SA479 TYPE 316</u>
Disc	<u>N88842-54-0065</u>	<u>ASME SA479 TYPE 316</u>
	<u>N91025-30-4468</u>	
Spring Washers	<u>N91025-30-4478</u>	<u>ASME SA479 TYPE 410</u>
Adjusting Bolt	<u>N92376-54-0188</u>	<u>ASME SA193 GR.B6</u>
Spindle	<u>N90142-81-0198</u>	<u>ASME SA193 GR.B6</u>
	<u>NX2770-0071</u>	<u>ASTM A313 TYPE 316</u>
c. Spring		
d. Bolting		
e. Other Pieces		
BONNET STUD	<u>N95882</u>	<u>ASME SA193 GR.B7</u>
BONNET NUT	<u>N95883</u>	<u>ASME SA194 GR.2H</u>

12/12/94

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1 1977 Edition, Addenda SUMMER 1977, Code Case No.                     .  
(Date) (Date)

Class 2

Date 13 Dec 94 Signed Crosby Valve & Gage Company by Lawrence H. Hiss  
(N Certificate Holder)

Our ASME Certificate of Authorization No. 1878 to use the NV symbol expires 30 SEP 95.  
(Date)

### CERTIFICATE OF DESIGN

Design information on file at Crosby Valve & Gage Company  
Stress analysis report (Class 1 only) on file at                     

Design specifications certified by\* VENKATACHALAN MANI  
PE State WA Reg No. 15065  
Stress Report Certified by\*                       
PE State                      Reg No.                     

\*Signature not required - list name only.

### CERTIFICATE OF SHOP 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 Massachusetts and employed by \* Arkwright Mutual Insurance Co. of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on Dec 13, 1994 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warrant, expressed or implied, concerning the equipment described in this Data 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.

Date 12/13, 1994

Factory Mutual Systems

Signed [Signature]  
(Inspector)

Commissions Mq1455  
(Nat'l. Bd., State, Prov. and No.)

\*Factory Mutual System



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Date:** 07/17/00

**Sheet:** 1 of 1

**Unit:** Not Applicable

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** main Steam (MS) System

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS(1)-4D	WPPSS *	MS(1)-4D-P3	N/A	N/A	1983	Replacement	Yes, Code Class 2 **

**7. Description Of Work Performed:** Replaced end brackets associated with support MS-1009N. The replacement work was performed as follows:

- 1) Removed all four (4) existing end brackets.
- 2) Fabricated four (4) new replacement end brackets.
- 3) Made required welds.
- 4) Performed magnetic particle (MT) examination on the final welds. Magnetic particle (MT) examination results acceptable.
- 5) Installed four (4) new replacement end brackets and tube steel.
- 6) Made required welds.
- 7) Performed magnetic particle (MT) examination on the final welds. Magnetic particle (MT) examination results acceptable.
- 8) Performed VT-3 visual examination on the four (4) new replacement end brackets. VT-3 visual examination results acceptable.

**NOTES-**

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) \*\* ASME Section III, Code Class NF(2) for support MS-1009N
- 3) The existing ASME Code Stamped piping system applicable to support MS-1009N is Main Steam (MS) piping system MS(1)-4D-P3. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 7/17/00 Date 7/17/00

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 6/29/00 to 7/19/00 and state 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.

A. M. Felt Commissions 74864/7486 NIS IS  
 Inspector's Signature National Board, State, and Endorsements

Date 7/19/00

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Date:** 09/14/20

**Sheet:** 1 of 1

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Unit:** Not Applicable

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Reactor Feed Water (RFW) System

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1972 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RFW-V-32A	Anchor Darling	1N-109	N/A	N/A	1975	-----	Yes, Code Class 1

**7. Description Of Work Performed:** Replaced existing stuffing box for valve RFW-V-32A. The replacement work was performed as follows:

- 1) Machined (counterbored) the replacement stuffing box to the required dimensions.
- 2) Performed liquid penetrant (PT) examination on the final machined (counterbored) surfaces of the replacement stuffing box. Liquid penetrant (PT) examination results acceptable.
- 3) Installed replacement pipe cap on the machined (counterbored) area of the new replacement stuffing box.
- 4) Made required weld.
- 5) Performed visual examination on the final weld. Visual examination results acceptable.
- 6) Performed liquid penetrant (PT) examination on the final weld. Liquid penetrant (PT) examination results acceptable.
- 7) Performed VT-1 visual examination on six (6) replacement studs for the stuffing box joint. VT-1 visual examination results acceptable.
- 8) Performed VT-1 visual examination on six (6) replacement nuts for the stuffing box joint. VT-1 visual examination results acceptable.
- 9) Removed existing stuffing box from the valve.
- 10) Installed replacement stuffing box.
- 11) Installed VT-1 visually examined replacement studs and nuts for the stuffing box joint.
- 12) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None

Test Pressure: 937 Psig

Test Temperature: 522° F

Component Design Pressure: 2160 Psig

Temperature: 700° F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date 9/14/00

Date 9/14/00

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 8/31/00 to 9/26/00 and state 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.

J. M. Foster  
Inspector's Signature

Commissions 7486W/7486 I IS n  
National Board, State, and Endorsements

Date 9/26/00

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 06/27/01**Sheet:** 1 Of 12. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Unit:** Not Applicable3. **(a) Work Performed By:** Energy Northwest**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest**(c) Type Code Symbol Stamp:** Not Applicable**(d) Certificate Of Authorization No.:** Not Applicable**(e) Expiration Date:** Not Applicable4. **Identification Of System:** Reactor Core Isolation Cooling (RCIC) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: N-416-16. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCIC(2)-1	WPPSS *	RCIC(2)-1-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RCIC-V-60	Borg Warner	14013	N/A	N/A	1976	Replaced	Yes, Code Class 1
RCIC-V-60	Borg Warner	13997	N/A	N/A	1976	Replacement	Yes, Code Class 1
RCIC-V-759	Borg Warner	28706	N/A	N/A	1978	Replacement	Yes, Code Class 1
RCIC-V-760	Borg Warner	80133	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Replaced suction and discharge piping material for pump RCIC-P-3. The replacement work was performed as follows:

- 1) Removed existing piping material such as such as elbows, flanges and pipe.
- 2) Removed existing valve RCIC-V-60, Serial No 14013.
- 3) Installed replacement piping material such as couplings, elbows, reducing inserts, tees and pipe.
- 4) Installed replacement valve RCIC-V-60, Serial No 13997.
- 5) Installed new valve RCIC-V-759, Serial No 28706.
- 6) Installed new valve RCIC-V-760, Serial No 80133.
- 7) Made required socket welds.
- 8) Performed visual examination on the final socket welds. Visual examination results acceptable.
- 9) Performed liquid penetrant (PT) examination on the final socket welds. Liquid penetrant (PT) examination results acceptable.
- 10) Installed new studs and nuts associated with pump RCIC-P-3 bolted flanged joints.
- 11) Installed material such as U bolts and jam nuts for the new support.
- 12) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

**NOTES -**

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which valve RCIC-V-60, Serial No 13997, valve RCIC-V-759, Serial No 28706 and valve RCIC-V-760, Serial No 80133 were installed is Reactor Core Isolation Cooling (RCIC) piping system RCIC(2)-1-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The replacement valve RCIC-V-60, Serial No 13997 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements. ASME Section III, Code Class 1 valve for ASME Section III, Code Class 2 application.
- 4) The new valve RCIC-V-759, Serial No 28706 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Summer 1975 Addenda requirements. ASME Section III, Code Class 1 valve for ASME Section III, Code Class 2 application.
- 5) The new valve RCIC-V-760, Serial No 80133 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements. ASME Section III, Code Class 1 valve for ASME Section III, Code Class 2 application.
- 6) The liquid penetrant (PT) examination on the final welds was performed in accordance with the requirements of ASME Section III, Code Class 2, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 7) The VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints was performed in accordance with the requirements of ASME Section XI, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐ None

Test Pressure: 80 Psig

Test Temperature: 64° F

Component Design Pressure: 125 Psig

Temperature: 170° F

9. Remarks: See attached NPV-1 Code Data Reports for the following valves:

EPN No	Serial No
RCIC-V-60	13995
RCIC-V-759	28706
RCIC-V-760	80133

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date 6/27/01

Date 6/27/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 7/24/01 to 7/14/01 and state 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.

[Signature]  
Inspector's Signature

Commissions 74662/7484 N I E  
National Board, State, and Endorsements

Date 7/14/01

FORM NPY-1 MANUFACTURER'S DATA REPORT FOR NUCLEAR PUMPS OR VALVES

**In Regard to the Provisions of the IWE Code Rules**

PLAN NO. 2-1723

1. Manufactured by Nuclear Valve Division of Borg Warner, 7500 Tyrone Avenue, Van Nuys, Ca. Order No. 44713 *6/28*

2. Manufactured for Bovee & Crail/G.E.R.I.  
P.O. 3 G-10, Richland, Washington 99352 Order No. 215-3261  
(Name and Address)

Q. WPPSS Hanford, #2 Job Site. REC-V-60 S/N 13995

1. Location of Plant Richland, Washington 99352

• Pump or Valve Identification Nuclear Valve Div., P/N 76630, 2 Inch Y Type Globe Valve, CS

Serial Numbers 13971 thru 13995 ( 25 valves )  
(Brief description of service for which equipment was designed)

(a) Drawing No. 76630 Prepared by Nuclear Valve Division of Borg Warner

(6) National Board No. \_\_\_\_\_

4. Design Conditions 3600 psi 100 °F  
(Pressure) (Temperature)

7. The material, design, construction, and workmanship complies with ASME Code Section III, Class 1

Edition 1971 . Addition Date Winter '73 . Case No. \_\_\_\_\_

[illegible]

\*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items, 1, 2, 3a and 3b on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

WBG 215 12187

Mark No.	Serial Spec. No.	Manufacturer	Remarks
(1) Baking			
(2) Other Part			
Stem - Code 1K35	SA564TY630		
Bar Stock		Jorgensen Steel	
Machined - 73444		NV Division	

REVIEWED  
BY: *[Signature]*  
DATE: 10/10/76  
BECHTEL QUALITY CONTROL

5. Hydrostatic test 3600-3650 psi.

### CERTIFICATION OF DESIGN

Design information on file at Nuclear Valve Div. of Borg Warner, 7500 Tyrone Ave., Van Nuys, Ca.  
Stress analysis report on file at NVD of Borg Warner, 7500 Tyrone Ave., Van Nuys, CA

Design specifications certified by David J. Murphy (1) Prof. Eng. State Wash. Reg. No. 12542

Stress analysis report certified by Byron Leonard Jr. (1) Prof. Eng. State CA Reg. No. 2123

(1) Signature not required. List name only.

We certify that the statements made in this report are correct.

Nuclear Valve Div.

Date Oct. 8 19 76 Signed of Borg Warner By *[Signature]*  
(Manufacturer)

Certificate of Authorization No. N-1254 expires October 27, 1978

### CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Province of California and employed by Dept. of Bldg. & Safety of City of Los Angeles

have inspected the equipment described in this Data Report on Oct. 8 19 76, and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Code, Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data 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.

Date October 8 19 76

*[Signature]*  
Inspector

Commission

Cal 1010  
(National Board, State, Province and No.)

WBG 3A 215 12187



8. Hydrostatic test 5400 psi.

Design information on file at NVD of Borg Warner, 7500 Tyrone Ave., Van Nuys, Ca. 91409  
 Stress analysis report on file at NVD of Borg Warner, 7500 Tyrone Ave., Van Nuys, CA 91409  
 Design specifications certified by David J. Murphy (1) Prof. Eng. State Wash. Reg. No. 12542  
 Stress analysis report certified by William E. Hill (1) Prof. Eng. State CA Reg. No. 11338  
 (1) Signature not required. List name only.

We certify that the statements made in this report are correct.

Nuclear Valve Division  
of Borg Warner

Date March 9 1978 Signed \_\_\_\_\_  
(Manufacturer)

Certificate of Authorization No. N-1254 expires October 27, 1978.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Province of California and employed by Lumbermen's Mutual Casualty of Long Grove, Illinois have inspected the equipment described in this Data Report on March 9 19 78, and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Code, Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data 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.

Date March 9 1978

Manuel B. Diana (Inspector)

Commissions CA-1275  
(National Board, State, Province and No.)

**FOR INFORMATION**

PLAN NO. 2-1723

BOOK # 0J123

FORM NPV-1 N CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES\*

As Required by the Provisions of the ASME Code, Section III, Div. 1

*Richard S. Smith*

1. Manufactured by Nuclear Valve Div., Borg Warner, 7500 Tyrone Ave., Van Nuys, Calif. *6/28/01*  
(Name and Address of N Certificate Holder)  
 2. Manufactured for Washington Public Power Supply Systems, Richland, Washington  
(Name and Address of Purchaser or Owner)  
 3. Location of Installation Richland, Washington WPPSS Hanford #2 Job Site  
(Name and Address)  
 4. Pump or Valve Y Globe Valve Nominal Inlet Size 3/4 Outlet Size 3/4  
(inch) (inch)

	(a) Model No. Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Natl. Std. No.	(g) Year Built
(1)	1500#	80129 thru	N/A	76590-2	1	N/A	1983
(2)		80135					
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

*RCV-V-160, S/N 80133*

5. The valves are designed to handle a fluid media which includes steam, water condensate, borated water, etc., associated with a PWR and BWR. The temperature pressure rating of the media is stated below.  
(Brief description of service for which equipment was designed)

6. Design Conditions 3600 psi 100 °F or Valve Pressure Class N/A (1)  
(Pressure) (Temperature)  
 7. Cold Working Pressure 3600 psi at 100°F.  
 8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Disc-Code 5F32	Stellite #6	Rex Precision	
5F55			
(b) Forgings			
Body-Code 5E99	SA 105	Pacific Forge	

RECHTEL  
709

BECHTEL  
100

(1) For manually operated valves only.

\* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in Items 1, 2 and 5 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

(10/77)

This form (E00037) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

## FORM NPV-1 (Back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(d) Other Parts			
Backseat-Code 5E84	SA 564 Ty 630	Jorgensen Steel	

9. Hydrostatic test 5400 psi. Disk Differential test pressure 3600 psi.

## CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, Edition 1974.

Addenda Winter '75 Code Case No. N/A Date 9/26/83

Signed Nuclear Valve Div., Borg Warner by Eric R. Smith

(N Certificate Holder)

Our ASME Certificate of Authorization No. W-1254 to use the II symbol expires 10/27/84

(N)

(Date)

## CERTIFICATION OF DESIGN

Design information on file at NVD of Borg Warner, 7500 Tyrone Ave., Van Nuys, Ca. 91409  
Stress analysis report (Class 1 only) on file at NVD of Borg Warner, 7500 Tyrone Ave., Van Nuys, CA

Design specifications certified by (1) David J. Murphy

PE State Washington Reg. No. 12542

Stress analysis certified by (1) Byron E. Leonard

PE State CA Reg. No. E1

(1) Signature not required. List name only.

## CERTIFICATE OF SHOP 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 California and employed by Lumbermen's Mutual Casualty of Long Grove, Illinois have inspected the pump, or valve, described in this Data Report on 726 19 83, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data 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.

Date 9/26 19 83

(Inspector)

Commissions 1275 CA

(Nat'l Bd., State, Prov. and No.)

709

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Reactor Core Isolation Cooling (RCIC) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCIC(2)-1 RCIC-V-91	WPPSS * Velan	RCIC(2)-1-P1 941014-4	N/A N/A	N/A N/A	1983 1994	----- Replacement	Yes, Code Class 2 Yes, Code Class 1

7. **Description Of Work Performed:** Installed external bypass for valve RCIC-V-31, Serial No 0126. The replacement work was performed as follows:

- 1) Installed new piping material such as pipe, pilot boss.
- 2) Installed new valve RCIC-V-91, Serial No 941014-4.
- 3) Made required welds.
- 4) Performed visual examination on the final welds. Visual examination results acceptable.
- 5) Performed liquid penetrant (PT) examination on the final welds. Liquid penetrant (PT) examination results acceptable.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the new valve RCIC-V-91, Serial No 941014-4 and external by pass for valve RCIC-V-31, Serial No 0126 was installed is Reactor Core Isolation Cooling (RCIC) piping system RCIC(2)-1-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The new valve RCIC-V-91, Serial No 941014-4 is certified to comply with ASME Section III, Code Class 1, 1989 Edition with no Addenda requirements. ASME Section III, Code Class 1 valve for ASME Section III, Code Class 2 application.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None

Test Pressure: Psig

Test Temperature: ° F

Component Design Pressure: Psig

Temperature: ° F

9. Remarks: See attached NPV-1 Code Data Report for the new valve RCIC-V-91, Serial No 941014-4.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date 6/29/01

Date 6/29/01

### 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 of \_\_\_\_\_ and employed by \_\_\_\_\_

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period \_\_\_\_\_ to \_\_\_\_\_ and state 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.

Not Required - Replacement 1" NPS And Smaller

Commissions

Inspector's Signature

National Board, State, and Endorsements

Date \_\_\_\_\_

**Pg. 1 of \_\_\_\_\_**

- BWNS  
EPP**

Certificate Holder's Serial No. **941014**8. Design conditions 1975 (pressure) psi 100 (temperature) °F or valve pressure class 800 (1)9. Cold working pressure 1975 psi at 100°F10. Hydrostatic test 3000 psi. Disk differential test pressure 2200 psi11. Remarks: MATERIALS MEET ASME SECTION II EDITION: 1989  
ADDENDA: NONE

## CERTIFICATION OF DESIGN

Design Specification certified by J.M. FARRELL P.E. State QUE Reg. no. 30039  
Design Report certified by S. ISBITSKY P.E. State QUE Reg. no. 22115

## CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-2797-1 Expires MAY 2/95Date March 7/94 Name VELAN INC Signed [Signature]  
(N Certificate Holder) (authorized representative)

## CERTIFICATE OF 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 Quebec and employed by Sir.  
of Quebec have inspected the pump, or valve, described in this Data Report on 94/3/8, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data 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.

Date 94/3/8 Signed [Signature] Commissions (C. 51)  
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

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PAGE 8 OF 22 (BWNS EPP)

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** High Pressure Core Spray (HPCS) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
HPCS(1)-4CL2	WPPSS *	HPCS(1)-4CL2-P1	N/A	N/A	1983	-----	Yes, Code Class 2

7. **Description Of Work Performed:** Installed external bypass for valve HPCS-V-12, Serial No E5310-1-1. The replacement work was performed as follows:

- 1) Installed new piping material such as pipe, elbow, pilot boss.
- 2) Made required welds.
- 3) Performed visual examination on the final welds. Visual examination results acceptable.
- 4) Performed liquid penetrant (PT) examination on the final welds. Liquid penetrant (PT) examination results acceptable.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the external by pass for valve HPCS-V-12, Serial No E5310-1-1 was installed is High Pressure Core Spray (HPCS) piping system HPCS(1)-4CL2-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date

6/29/01

Date

6/29/01

### 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 of \_\_\_\_\_ and employed by \_\_\_\_\_

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period \_\_\_\_\_ to \_\_\_\_\_ and state 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.

Not Required - Replacement 1" NPS And Smaller

Inspector's Signature

Commissions

National Board, State, and Endorsements

Date

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** High Pressure Core Spray (HPCS) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Summer 1971 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
HPCS-V-4	Anchor Darling	E5310-4-1	N/A	N/A	1974	Repair	Yes, Code Class 1

7. **Description Of Work Performed:** : Drilled hole in the disc for valve HPCS-V-4. The work was performed as follows:

- 1) Drilled hole in the existing disc of the valve - See Note 1.
- 2) Performed VT-3 visual examination on the existing studs for the valve body to bonnet joint. VT-3 visual examination results acceptable.
- 3) Performed VT-3 visual examination on the existing nuts for the valve body to bonnet joint. VT-3 visual examination results acceptable.
- 4) Reinstalled the existing disc in the valve - See Note 1.
- 5) Reinstalled VT-3 visually examined existing studs for the valve body to bonnet joint.
- 6) Reinstalled VT-3 visually examined existing nuts for the valve body to bonnet joint.
- 7) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

### NOTES-

- 1) HPCS-V-4 is a double (duel) disc valve. The hole was drilled on the Reactor Pressure Vessel (RPV) side of the valve disc. The disc opposite to the Reactor Pressure Vessel (RPV) side of valve HPCS-V-4 was replaced in accordance with ASME Section XI Plan No 2-1762.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ None ☐  
 Test Pressure: 2790 Psig Test Temperature: 500° F  
 Component Design Pressure: 405 Psig Temperature: 86° F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this repair conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 7/23/01 Date 7/23/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 4/26/01 to 7/24/01 and state 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.

[Signature] Commissions 74864/7486 NIS IS  
 Inspector's Signature National Board, State, and Endorsements

Date 7/24/01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 06/14/012. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Sheet:** 1 Of 1**Unit:** Not Applicable3. (a) **Work Performed By:** Energy Northwest(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest(c) **Type Code Symbol Stamp:** Not Applicable(d) **Certificate Of Authorization No.:** Not Applicable(e) **Expiration Date:** Not Applicable4. **Identification Of System:** Standby Liquid Control (SLC) System5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1972 Addenda, Code Case: None(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SLC(2)-4S	WPPSS *	SLC(2)-4S-P1	N/A	N/A	1983	-----	Yes, Code Class 1
SLC-V-4B	Conax	3	90	N/A	1975	-----	Yes, Code Class 1
Trigger Body	Conax	4295	N/A	N/A	1993	Replaced	Yes, Code Class 1
Trigger Body	Conax	5885	N/A	N/A	2000	Replacement	Yes, Code Class 1
Inlet Fitting	Conax	4328	N/A	N/A	1993	Replaced	Yes, Code Class 1
Inlet Fitting	Conax	5887	N/A	N/A	2000	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Replaced parts for the existing valve SLC-V-4B, Serial No 3, National Board No 90. The replacement work was performed as follows:

- 1) Removed the existing Trigger Body Subassembly Serial No 4295 from the valve.
- 2) Installed new replacement Trigger Body Subassembly Serial No 5885 in the valve.
- 3) Removed the existing Inlet Fitting Serial No 4328 from the valve.
- 4) Installed new replacement Inlet Fitting Serial No 5887 in the valve.
- 5) Performed VT-3 visual examination on the existing studs for the valve joint. VT-3 visual examination results acceptable. Note - One (1) set of studs cover both the inlet and the outlet joints.
- 6) Performed VT-3 visual examination on the existing nuts for the valve inlet joint. VT-3 visual examination results acceptable.
- 7) Performed VT-3 visual examination on the existing nuts for the valve outlet joint. VT-3 visual examination results acceptable.
- 8) Reinstalled refurbished valve SLC-V-4B, Serial No 3, National Board No 90.
- 9) Reinstalled VT-3 visually examined existing studs and nuts for the valve inlet and outlet joints.
- 10) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the existing valve SLC-V-4B, Serial No 3, National Board No 90 was reinstalled is Standby Liquid Control (SLC) piping system SLC(2)-4S-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) ASME Section III, Code Class 1, 1971 Edition with Winter 1972 Addenda for the existing valve SLC-V-4B, Serial No 3, National Board No 90.
- 4) ASME Section III, Code Class 1, 1977 Edition with Summer 1977 Addenda for the new replacement Trigger Body Subassembly Serial No 5885. The new replacement Trigger Body Subassembly certified to 1977 Edition with Summer 1977 Addenda is acceptable for use in the existing valve certified to 1971 Edition with Winter 1972 Addenda. This acceptability is documented in ASME Section XI Plan No 2-1618.
- 5) ASME Section III, Code Class 1, 1977 Edition with Summer 1977 Addenda for the new replacement Inlet Fitting Serial No 5887. The new replacement Inlet Fitting certified to 1977 Edition with Summer 1977 Addenda is acceptable for use in the existing valve certified to 1971 Edition with Winter 1972 Addenda. This acceptability is documented in ASME Section XI Plan No 2-1618.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None  
 Test Pressure: 1240/1245 Psig Test Temperature: 82.6° F  
 Component Design Pressure: 1400 Psig Temperature: 150° F

9. Remarks: 1) See attached N-2 Code Data Reports for the following new replacement valve parts:

Valve Part	Serial No
Trigger Body Subassembly	5885
Inlet Fitting	5887

2) The design pressure of 1400 Psig and design temperature of 150° F are for both valve SLC-V-4B and Standby Liquid Control (SLC) piping system SLC(2)-4S-P1

3) Test pressure on the down stream side of valve SLC-V-4B (RPV Side) - Test pressure of 1245 Psig and test temperature of 82.6° F.

4) Test pressure on the up stream side of valve SLC-V-4B (SLC-P-1B Side) - Test pressure of 1240 Psig and test temperature of 82.6° F.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 6/14/01 Date 6/14/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1-18-01 to 6-15-01 and state 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.

A. M. Erdt Commissions 7486/7486 NIS ES  
 Inspector's Signature National Board, State, and Endorsements

Date 6-15-01

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL  
NUCLEAR PARTS AND APPURTENANCES\***  
As Required by the Provisions of the ASME Code, Section III  
Not to Exceed One Day's Production

PLAN NO. 2-1735

004

*Quincy Sup*

6/12/01 Pg. 1 of 2

1. Manufactured and certified by IST-Conax Nuclear, 402 Sonwil Drive, Cheektowaga, NY 14225  
(name and address of NPT Certificate Holder)
2. Manufactured for Energy Northwest, Richland, WA 99352  
(name and address of Purchaser)
3. Location of installation UNKNOWN  
(name and address)
4. Type: N20000, Rev. G SA479 304SST 75 KSI N/A 2000  
(drawing no.) (mat'l spec. no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 77 S77 1 N/A  
(edition) (addenda date) (class) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision          Date           
(no.)
7. Remarks: Trigger Body Subassembly for explosive actuated valve replacement kit for standby liquid control system.

Para. NB-2121 (b) is applicable to ram. Press Fit/Seal on .328 & .4375 diameters. Overall subassembly length is 2.5".  
Pressure Test at 2800 psi for 10 minutes.

8. Nom. thickness (in.) See Remarks Min. design thickness (in.) See Remarks Dia. ID (ft & in.) See Remarks Length overall (ft & in.) See Remarks
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) <u>5885</u>	<u>5885</u>
(2) <u>5886</u>	<u>5886</u>
(3) <u>        </u>	<u>        </u>
(4) <u>        </u>	<u>        </u>
(5) <u>        </u>	<u>        </u>
(6) <u>SLC-V-4B, TRIGGER</u>	<u>        </u>
(7) <u>        </u>	<u>        </u>
(8) <u>BODY SN 5885</u>	<u>        </u>
(9) <u>        </u>	<u>        </u>
(10) <u>        </u>	<u>        </u>
(11) <u>        </u>	<u>        </u>
(12) <u>        </u>	<u>        </u>
(13) <u>        </u>	<u>        </u>
(14) <u>        </u>	<u>        </u>
(15) <u>        </u>	<u>        </u>
(16) <u>        </u>	<u>        </u>
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(22) <u>        </u>	<u>        </u>
(23) <u>        </u>	<u>        </u>
(24) <u>        </u>	<u>        </u>
(25) <u>        </u>	<u>        </u>

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26) <u>        </u>	<u>        </u>
(27) <u>        </u>	<u>        </u>
(28) <u>        </u>	<u>        </u>
(29) <u>        </u>	<u>        </u>
(30) <u>        </u>	<u>        </u>
(31) <u>        </u>	<u>        </u>
(32) <u>        </u>	<u>        </u>
(33) <u>        </u>	<u>        </u>
(34) <u>        </u>	<u>        </u>
(35) <u>        </u>	<u>        </u>
(36) <u>        </u>	<u>        </u>
(37) <u>        </u>	<u>        </u>
(38) <u>        </u>	<u>        </u>
(39) <u>        </u>	<u>        </u>
(40) <u>        </u>	<u>        </u>
(41) <u>        </u>	<u>        </u>
(42) <u>        </u>	<u>        </u>
(43) <u>        </u>	<u>        </u>
(44) <u>        </u>	<u>        </u>
(45) <u>        </u>	<u>        </u>
(46) <u>        </u>	<u>        </u>
(47) <u>        </u>	<u>        </u>
(48) <u>        </u>	<u>        </u>
(49) <u>        </u>	<u>        </u>
(50) <u>        </u>	<u>        </u>

10. Design pressure 1500 psi. Temp. 150 °F. Hydro. test pressure \* See Remarks at temp. °F  
(when applicable)

\*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

Certificate Holder's Serial Nos. 5885 through 5886

## CERTIFICATION OF DESIGN

Design specifications certified by George I. Skoda P.E. State CA Reg. no. 15847  
(when applicable)Design report\* certified by Francis J. Domino P.E. State NY Reg. no. 36832  
(when applicable)

## CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Trigger Body Sub Assembly  
conforms to the rules of construction of the ASME Code, Section III, Division 1.NPT Certificate of Authorization No. N-1850 Expires September 2, 2001Date 8/10/00 Name IST Conax Nuclear Signed Paul E. Couchme  
(NPT Certificate Holder) (authorized representative)

## CERTIFICATE OF 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  
New York and employed by Hartford Steam Boiler Inspection & Insurance Companyof Hartford, CT have inspected these items described in this Data Report on AUG. 10, 2000, and state that to the  
best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code,  
Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment  
described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or  
property damage or loss of any kind arising from or connected with this inspection.Date 8-10-00 Signed Allen J. Demaree Commissions NB 10964AN NY 5057  
(Authorized Inspector) [Nat'l Bd. (incl. endorsements) and state or prov. and no.]

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL  
NUCLEAR PARTS AND APPURTENANCES\*  
As Required by the Provisions of the ASME Code, Section III  
Not to Exceed One Day's Production

PLAN No. 2-1735

005

6/12/01

Pg. 1 of 2

1. Manufactured and certified by IST Conax Nuclear, 402 Sonwil Drive, Cheektowaga, NY 14225  
(name and address of NPT Certificate Holder)
2. Manufactured for Energy Northwest Richland, WA 99352  
(name and address of Purchaser)
3. Location of installation UNKNOWN  
(name and address)
4. Type: N38017, Rev. F SA479 304SST 75 KSI N/A 2000  
(drawing no.) (mat'l spec. no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 77 S77 1 N/A  
(edition) (addenda date) (class) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision          Date           
(no.)
7. Remarks: Inlet Fitting for explosive actuated valve replacement kit for standby liquid control system.

Pressure Test at 2800 psi for 10 minutes.

8. Nom. thickness (in.) .040 Min. design thickness (in.) .031 Dia. ID (ft & in.) .895" Length overall (ft & in.) 2.245"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) <u>5887</u>	<u>5887</u>
(2) <u>5888</u>	<u>5888</u>
(3) <u>        </u>	<u>        </u>
(4) <u>        </u>	<u>        </u>
(5) <u>        </u>	<u>        </u>
(6) <u>SLC-V-41B, INLET</u>	<u>        </u>
(7) <u>        </u>	<u>        </u>
(8) <u>FITTING SIN 5887</u>	<u>        </u>
(9) <u>        </u>	<u>        </u>
(10) <u>        </u>	<u>        </u>
(11) <u>        </u>	<u>        </u>
(12) <u>        </u>	<u>        </u>
(13) <u>        </u>	<u>        </u>
(14) <u>        </u>	<u>        </u>
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(25) <u>        </u>	<u>        </u>

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26) <u>        </u>	<u>        </u>
(27) <u>        </u>	<u>        </u>
(28) <u>        </u>	<u>        </u>
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(31) <u>        </u>	<u>        </u>
(32) <u>        </u>	<u>        </u>
(33) <u>        </u>	<u>        </u>
(34) <u>        </u>	<u>        </u>
(35) <u>        </u>	<u>        </u>
(36) <u>        </u>	<u>        </u>
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(49) <u>        </u>	<u>        </u>
(50) <u>        </u>	<u>        </u>

10. Design pressure 1500 psi. Temp. 150 °F. Hydro. test pressure \* See Remarks at temp. °F  
(when applicable)

\*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8½ x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

Certificate Holder's Serial Nos. 5887 through 5888

## CERTIFICATION OF DESIGN

Design specifications certified by George I. Skoda P.E. State CA Reg. no. 15847  
(when applicable)

Design report\* certified by Francis J. Domino P.E. State NY Reg. no. 36832  
(when applicable)

## CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Inlet Fittings  
conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-1850 Expires September 2, 2001

Date 8/10/00 Name IST Conax Nuclear Signed Paul Elouchman  
(NPT Certificate Holder) (authorized representative)

## CERTIFICATE OF 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  
New York and employed by Hartford Steam Boiler Inspection & Insurance Company

of Hartford, CT have inspected these items described in this Data Report on AUG 10 2000, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

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

Date 8-10-00 Signed Allen J. Premisley Commissions NB 10964AN NY 5057  
(Authorized Inspector) (Nat'l Bd. (incl. endorsements) and state or prov. and no.)



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Date:** 01/24/01

**Sheet:** 1 Of 1

**Unit:** Not Applicable

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Containment Atmosphere Control (CAC) System

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Summer 1973 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CAC-HR-1B	Air Products	76-130-3	5210	N/A	1977		Yes, Code Class 3
CAC-RV-63B	Loneragan	507929-1-2	N/A	N/A	1976		Yes, Code Class 3
CAC-RV-63B	Anderson Greenwood	97-16628	N/A	N/A	1997	Replaced Replacement	Yes, Code Class 2

**7. Description Of Work Performed:** Removed parts from the existing relief valve CAC-RV-63B, Serial No 507929-1-2 and installed in the replacement relief valve CAC-RV-63B, Serial No 97-16628 to change the setpoint pressure from 488 psig to 300 psig. The parts replacement work and the replacement of the relief valve work was performed as follows:

- 1) Removed spring from the existing relief valve Serial No 507929-1-2 and installed in the replacement relief valve Serial No 97-16628.
- 2) Removed spring steps from the existing relief valve Serial No 507929-1-2 and installed in the replacement relief valve Serial No 97-16628.
- 3) Removed nozzle from the existing relief valve Serial No 507929-1-2 and installed in the replacement relief valve Serial No 97-16628.
- 4) Removed bonnet from the existing relief valve Serial No 507929-1-2 and installed in the replacement relief valve Serial No 97-16628.
- 5) Assembled relief valve Serial No 97-16628 using the above listed parts.
- 6) Removed the existing relief valve CAC-RV-63B, Serial No 507929-1-2.
- 7) Installed the replacement relief valve CAC-RV-63B, Serial No 97-16628.

**NOTES -**

- 1) Parts from existing relief valve Serial No 507929-1-2 are certified to comply with ASME Section III, Code Class 3, 1974 Edition with Summer 1974 Addenda requirements and replacement relief valve Serial No 97-16628 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1974 Addenda requirements. The above ASME Section III, Code Class 3 parts were reviewed against ASME Section III, Code Class 2, Subsection NC requirements and were found to be acceptable for ASME Section III, Code Class 2 application.
- 2) Loneragan relief valves were manufactured by Anderson Greenwood.
- 3) The existing ASME Code Stamped piping system in which the replacement valve CAC-RV-63B, Serial No 97-16628 was installed is Containment Atmosphere Control (CAC) piping system for CAC-HR-1B. The CAC-HR-1B skid piping is certified to comply with ASME Section III, Code Class 2, however the cooling water (SW) lines on which the relief valve was installed is certified to comply with ASME Section III, Code Class 3.
- 4) ASME Section III, Code Class 2 relief valve CAC-RV-63B, Serial No 97-16628 for ASME Section III, Code Class 3 application.

# ENERGY NORTHWEST

PLAN No 2-1736

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None  
Test Pressure: Psig Test Temperature: °F  
Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached NV-1 Code Data Reports for the following relief valves:

- 1) NV-1 Code Data Report for relief valve Serial No 507929-1-2 from which the parts were removed and installed in relief valve Serial No 97-16628.
- 2) NV-1 Code Data Report for relief valve Serial No 97-16628 which received the parts removed from relief valve Serial No 507929-1-2. Relief valve Serial No 97-16628 was installed in the plant as CAC-RV-63B

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date 1/24/01

Date 1/24/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 8/11/00 to 3/9/01 and state 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.

A. M. Foster  
Inspector's Signature

Commissions 74866/7486 NJ  
National Board, State, and Endorsements

Date 3/9/01

As required by the Provisions of the ASME Code Rules

PLAN NO. 2-1130

*David Sup*  
1/24/01

1. Manufactured by J. E. LONERGAN CO., RED LION RD., W. OF VERREE RD., PHILA., PA.  
Name and Address 19115

Model No. D30-D Order No. 507929 Contract Date 6/23/75 National Board No. \_\_\_\_\_

2. Manufactured For Air Products Chemicals, Inc.  
Name and Address Allentown, Pa. Order No. 00-4-1371-108

3. Owner Unknown  
Name and Address \_\_\_\_\_

4. Location of Plant Unknown

5. Valve Identification SV-63B Serial No. 507929-1-2 Drawing No. A-2369

Type Safety Relief Valve Orifice Size 0.110 Pipe Size \_\_\_\_\_ Inlet 1" Outlet 2"  
Safety; Safety Relief; Pilot; Power Actuated Sq. Inch Inch Inch

6. Set Pressure (PSIG) 300# PSIG Coincident with 450 °F  
5# PSIG Back Pressure Rated Temperature

Stamped Capacity 30.6 G.P.M. ~~XXXX~~ 10 % Overpressure Blowdown (PSIG) XX

Hydrostatic Test (PSIG) Inlet 450 Outlet 425# PSIG  
~~XXXX~~ Valve

The material, design, construction and workmanship comply with ASME Code, Section III,

Class 3, Edition 1974, Addenda Date 6/30/74 Summer 1974 Case No. 1555 & 1574

Pressure Containing or Pressure Retaining Components

a. Castings Serial No. or Identification

Body A-9035-2

Bonnet ~~XXXX~~ A-9035-12

b. Bar Stock and Forgings

Support Rods \_\_\_\_\_

Nozzle 55603

Disc 55703

Spring Washers 55603

Adjusting Screw 89304

Spindle 90059

WPPSS CONTRACT 2808 71  
PROJECT NUMBER 2  
DWG. NO. 4 1371 1820 03D  
ITEM NO. CAC HR 1B NB 5-10  
Material Specification  
HYDROGEN RECOMBINER SYSTEM

ASME SA 216/WCB

ASME SA 216/WCB

FOR INFORMATION ONLY

ASME SA-479 Type 304

ASME SA-479 Type 304

ASME SA-479 Type 304

ASME SA-479 Type 304

ASME SA-479 Type 304

Serial No. or  
Certification Heat No.  
31933

Material Specification  
Including Type or Grade

c. Spring Studs - Cert. of Conformance  
d. Bolting Nuts - " " "

ASTM A-229  
ASME SA-193 GR-B7  
ASME SA-194 GR-2H

e. Other Parts such as Pilot Components

Cap

D-4055-2

ASME SA-216/WCB

WPPSS CONTRACT 2808 71  
PROJECT NUMBER 2  
DWG. NO. 4 1371 1820 03D  
ITEM NO. 04C HR 1B NB 5-210  
HYDROGEN RECOMBINER SYSTEM

We certify that the statements made in this report are correct.

Date SEP 28 1976

Signed J. E. LONERGAN CO.  
Manufacturer

By

J. Zuraski 9-29-76  
J. Zuraski

Certificate of Authorization No. N-1443 expires August 9, 1979

### CERTIFICATE OF SHOP 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 Penna. and employed by Hartford Steam Boiler T. & I. Co. of Hartford, Conn. have inspected the equipment described in this Data Report on SEP 28 1976 19, and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data 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.

Date SEP 28 1976 19

Walter J. Comey  
(Inspector)

Commissions

Pa 1786

(National Board, State, Province and No.)

FORM NV-1 CERTIFICATE HOLDERS' DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES\*  
As Required by the Provisions of the ASME Code, Section III, Division 1 Pg. 1 of 2

1. Manufactured and certified by Anderson, Greenwood & Co., 3950 Greenbriar, Stafford, TX 77477  
Washington Public Power & Sply, P.O. Box 968, Richland, WA 99352  
(name and address of NV Certificate Holder)
2. Manufactured for \_\_\_\_\_  
(name and address of Purchaser) PLAN No. 2-1736
3. Location of installation Washington Nuclear Power Plant, N. Power Plant Loop, Richland, WA 99352  
(name and address)
4. Valve ND30DS121ADG488 Orifice size 0.394 Nom. inlet size 1 Outlet size 2  
(model no., series no.) (in.) (in.) (in.)
5. ASME Code, Section III, Division 1: 1974 W-74 2 NA  
(edition) (addenda date) (class) (Code Case no.)
6. Type Spring 488 Fixed 700F 450 at Ambient °F  
(spring, pilot or power operated) (set pressure, psig) (blowdown, psi) (rated temp.) (hydro. test, psig, inlet)
7. Identification 97-16628 NA N11.1315 R/A NA 1997  
(Cert. Holder's serial no.) (CRN) (drawing no.) (Nat'l. Bd. no.) (year built)
8. Control ring settings NA
9. Pressure retaining items:

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	B635-2	SA216-WCB	70
Bonnet or Yoke	B623-2	SA216-WCB	70
Support Rods Cap	J3288-5	SA216-WCB	70
Nozzle	B613-1	SA351-CF8M	70
Disk	B607	SA479-316	75
Spring Washers Disc Holder	B687-1	SA351-CF8M	70
Adjusting Screws Nut	B617	SA479-316	75
Handle Screw Gag Plug	B529	SA479-316	75
Spring Screw Ring Pin	B612	SA479-316	75
Bolting Stud	8866612	SA193B7	105
Other Items Pipe Plug	621YNF, 621YNF2	SA105	70
Nut	N4C	SA194-2H	NA

10. Relieving capacity 75.1 GPM @ 10% overpressure as certified by the National Board 4-16-85  
(steam or fluid, lb/hr) (psi) (date)

11. Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CERTIFICATION OF DESIGN

Design Specification certified by David Michael Bosi P.E. State WA Reg. no. 20941  
Design Report certified by NA P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

NV Certificate of Authorization No. N-2825 Expires 9/10/99

Issued 11/13/97 Name Anderson, Greenwood & Co. Signed Joseph A. Parks  
(NV Certificate Holder) (authorized representative)

\* Additional information in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in Items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

## CERTIFICATE OF 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 TX and employed by C.U.I.C.

of Boston, MA have inspected the valve described in this Data Report or 11-14-97, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this valve in accordance with the ASME Code, Section III, Division 1.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data 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.

Date 11-14-97 Signed [Signature] Commissions TEX 803  
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

SATISFACTORY ☒ UNSATISFACTORY ☐

[Signature] I 12-15-97  
RECEIPT INSPECTOR / LEVEL / DATE

ASME III / 2 74 / W 74



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

**1. Owner:** Energy Northwest

**Date:** 09/06/98 <sup>CO VES</sup>

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Sheet:** 1 of 1

**2. Plant:** Columbia Generating Station

**Unit:** Not Applicable

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Reactor Recirculation Cooling (RRC) System

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RRC-P-1A	Bingham	B-2-1034	134	N/A	1974		Yes, Code Class 1
Mechanical Seal	Bingham	11N92-3	1080	N/A	1983	Replaced	Yes, Code Class 1
Mechanical Seal	Bingham	11N92-2	1079	N/A	1983	Replacement	Yes, Code Class 1

**7. Description Of Work Performed:** Replaced existing upper mechanical seal for pump RRC-P-1A. The replacement work was performed as follows:

- 1) Removed existing upper mechanical seal, Serial No 11N92-3.
- 2) Installed spare replacement upper mechanical seal, Serial No 11N92-2.
- 3) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

**NOTES -**

- 1) The existing pump RRC-P-1A is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 2) Both the existing mechanical seal, Serial No 11N92-3 and the spare replacement mechanical seal, Serial No 11N92-2 are certified to comply with ASME Section III, Code Class 1, 1971 Edition with 1971 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None  
 Test Pressure: 935 Psig Test Temperature: 525° F  
 Component Design Pressure: 1650 Psig Temperature: 575° F

9. Remarks: See attached N-2 Code Data Report for the spare replacement mechanical seal, Serial No 11N92-2.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Date 9/14/00

Date 9/14/00

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/25/00 to 9/26/00 and state 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.

J. McFadden  
 Inspector's Signature

Commissions 7486W/7486 N I I S  
 National Board, State, and Endorsements

Date \_\_\_\_\_

## FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*

As required by the Provisions of the ASME Code Rules

Quadrup Sup b  
9/6/00

1. (a) Manufactured by Bingham-Willamette Company, Portland, OR  
(Name and address of Manufacturer of part)
- (b) Manufactured for Washington Public Power Supply System, Richland, WA  
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part 11N92 - 2 Nat'l Bd. No. 1079
- (a) Constructed According to Drawing No. J1756 Drawing Prepared by Bingham-Willamette Company
- (b) Description of Part Inspected Mechanical Seal Type RV875B-2
- (c) Applicable ASME Code: Section III, Edition 1971, Addenda date 1971, Case No. NONE Class 1
3. Remarks To prevent liquids from escaping from pump. PB Parts consist of:  
(Brief description of service for which component was designed)
- a.) Seal Holder SN 149285-2b.) Gland-Upper Seal SN 1495283-2
- Seal Hydrotested at 2575 PSI.

Note: Items 4-18 not applicable.

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.  
(The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date NOV 21 1983 Signed BINGHAM-WILLAMETTE COMPANY By George M. K.  
PORTLAND, OREGON  
(Manufacturer)

Certificate of Authorization Expires February 28, 1986 Certificate of Authorization No. N-16-55

## CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State            Reg. No.           

Stress analysis report certified by N/A Prof. Eng. State            Reg. No.           

## CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Oregon and employed by Department of Commerce have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on NOV 21 1983 and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data 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.

Date NOV 21 1983 19           

           Inspector's Signature

Commissions MB 836            National Board, State, Province and No.           

\*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-3 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

S.O. 11N92-2  
ITEM 1 N-2 Code Data Report  
PAGE 2

FORM N-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material T.S. Nominal Thickness in. Corrosion Allowance in. Dia. ft. in. Length ft. in.  
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long H.T. R.T. Efficiency %

Girth H.T. R.T. No. of Courses

6. Heads: (a) Material T.S. (b) Material T.S.  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)  
(Top, bottom, ends)

(a)   
(b)   
If removable, bolts used (Material, Spec. No., T.S., Size, Number) Other fastening (Describe or attach sketch)

7. Jacket Closure: (Describe as edge and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)  
Drop Weight   
Charpy Impact ft-lb  
at temp. of °F

8. Design pressure: 1650 psi at 575 °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary, Material  Dia.  Thickness in. Attachment: (Welded, Bolted)  
(Kind & Spec. No.) (Subject to pressure)

Floating, Material  Dia.  Thickness in. Attachment:

10. Tubes: Material  O.D. in. Thickness in. or gage. Number  Type (Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material T.S. Nominal Thickness in. Corrosion Allowance in. Dia. ft. in. Length ft. in.  
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long H.T. R.T. Efficiency %

Girth H.T. R.T. No. of Courses

13. Heads: (a) Material T.S. (b) Material T.S.  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)  
(a) Top, bottom, ends   
(b) Channel   
If removable, bolts used (a)  (b)  (c)  Other fastening (Describe or attach sketch)

14. Design pressure:  psi at °F  
Drop Weight   
Charpy Impact ft-lb  
at temp. of °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number  Size  Location

16. Nozzles:  
Purpose (Inlet, Outlet, Drain)  Number  Dia. or Size  Type  Material  Thickness  Reinforcement Material  How Attached

17. Inspection Manholes, No.  Size  Location   
Openings: Handholes, No.  Size  Location   
Threaded, No.  Size  Location

18. Supports: Skirt (Yes or No) Lugs (Number) Legs (Number) Other (Describe) Attached (Where & How)

19. Is Pastured Heat-Treated.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993522. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993523. **(a) Work Performed By:** Energy Northwest**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest**(c) Type Code Symbol Stamp:** Not Applicable**(d) Certificate Of Authorization No.:** Not Applicable**(e) Expiration Date:** Not Applicable4. **Identification Of System:** Reactor Recirculation Cooling (RRC) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RRC-P-1B Mechanical Seal Mechanical Seal*	Bingham Bingham Bingham	210100 (B-2-1035) 11N92-1 N01-1*	135 1078 473*	N/A N/A N/A	1974 1983 1981*	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 No, Code Class 1*

7. **Description Of Work Performed:** Replaced existing upper mechanical seal for pump RRC-P-1A. The replacement work was performed as follows:

- 1) Removed existing upper mechanical seal, Serial No 11N92-1.
- 2) Installed spare replacement upper mechanical seal, Serial No N01-1.
- 3) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

**NOTES -**

1) \* The origin and the acceptability of the spare mechanical seal, Serial No N01-1 is as follows:

The used spare replacement mechanical seal, Serial No N01-1 is from a pump, Serial No 00N04, National Board No 473. This pump was furnished by Bingham Willamette to Black Fox plant. This plant was later cancelled. There is no ASME Code stamping nor ASME Code Data Report for this seal since it was part of an ASME Section III, Code Class 1 stamped pump, Serial No 00N04, National Board No 473. This mechanical seal was originally installed in pump RRC-P-1B, ASME Section XI Plan No 2-0357 and was previously removed from pump RRC-P-1B, ASME Section XI Plan No 2-0750. The acceptability of this seal is documented in ASME Section XI Plan No 2-0357.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None  
 Test Pressure: 1022 Psig Test Temperature: 215° F  
 Component Design Pressure: 1650 Psig Temperature: 575° F

9. Remarks: See attached NPV-1 Code Data Report for pump, Serial No 00N04, National Board No 473. The used spare replacement mechanical seal, Serial No N01-1 is from a pump, Serial No 00N04, National Board No 473.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 6/23/01 Date 6/23/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 8/8/01 to 7/10/01 and state 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.

M. M. Burt Commissions 74164/ 7485 NIB  
 Inspector's Signature National Board, State, and Endorsements

Date 7/10/01

F. E.  
GE PO AG 909

SO 00N04

PLAN NO. 2-1738  
SEAL S/N N01-1 FROM BLACK  
FOX PUMP S/N 00N04.

*Kudryk Supt*  
6/12/01

FORM NPV-1 N CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES\*  
As Required by the Provisions of the ASME Code, Section III, Div. 1

1. Manufactured by Bingham-Willamette Co., 2800 NW Front Ave., Portland, Oregon 97210  
(Name and Address of N Certificate Holder)  
2. Manufactured for General Electric for resale to Oklahoma Public Services  
(Name and Address of Purchaser or Owner)  
3. Location of Installation Black Fox Plant Site near Enola, Oklahoma  
(Name and Address)  
4. Pump or Valve 00N01 Nominal Inlet Size 24 Outlet Size 22  
(Inches) (Inches)  
(a) Model No. (b) N Certificate Holder's (c) Canadian (d) Drawing (e) Mark (f) Year  
Serial No. Serial Registration No. No. No. No. No. No. No.  
or Type  
(1) RV 00N04 NA H-5083 1 NB-473 1981  
(2) Rev. D  
(3)  
(4)  
(5)  
(6)  
(7)  
(8)  
(9)  
(10)

5. Recirculation Pump  
(Brief description of service for which equipment was designed)  
6. Design Conditions 1650 psi 575 °F or Valve Pressure Class NA (1)  
(Pressure) (Temperature)  
7. Cold Working Pressure 1650 psi at 100°F.  
8. Pressure Retaining Flange

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
771127	SA-351 Gr CF8A	Kubota Ltd.	Volute Case (103-1)
P4717	SA-351 Gr CF8M	Wisconsin Cent.	Stuffing Box (113-1)
P4758	SA-351 Gr CF8	Wisconsin Cent.	Seal Holder (402-1)
A7238	SA-351 Gr CF8	Wisconsin Cent.	Gland, Upper (408-1)
G9932	SA-182 Tp 304	Rocky Mtn Nuclear	Clamp Set (603-1)
(b) Forgings			
67607-(A1)	SA-240 F316	G.O. Carlson	Valve body (610-1)
67725-281	SA-240 F316	G.O. Carlson	Valve bonnet (610-2)
M0253	SA-213 T304	Plymouth Tube	Coil (613-4)
48719	SA-182 F304	Viking	Thermowell (606-5, 607-8, 609-7)
48719	SA-182 F304	Viking	Flange (613-1, -3)
17229	SA-182 F316	Viking	Nozzle (113-3 thru -5)
81-18417	SA-350 Gr LF2	Earl M. Jorgensen	Thrust Ring (119)
523036	SA-350 Gr LF2	Coulter Steel	Pump Flange (501-2)
G9932	SA-182 F304	Rocky Mtn Nuclear	Plug (503)
55729 (VKB)	SA-182 F304	Standard	R-Con Flange (606-3, 607-6, 609-9)
8654259	SA-182 F304	Western Forge	Flange (607-5)
625389 (VMO)	SA-182 F304	Standard	Flange (607-7)
A16852 (VHH)	SA-182 F304	Standard	Plug (608)

(1) For manually operated valves only.

\* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 1, 2 and 5 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

(10/77)

This form (888577) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017.

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2/11 00N02

FORM NPV-1 (Back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting			
115814 & 125913	SA-540 Gr B23 C1 5	Jorgensen	Stud, Case (108)
8062630	SA-194 Gr 7	Metrix Mfg.	Nut, Case (109)
RX, RXX & CF	SA-194 Gr 8	Rocky Mtn Nuclear	Nut, Clamp (603-3)
DJ	SA-193 Gr 88	Rocky Mtn Nuclear	Stud, Clamp (603-2)
L5382 (A&B)	N2 Data Report	Western Piping	Heat Exchanger (519)
A6502	SA-36	Lukens	Strut Lugs (501-10, -11)
8654156	SA-182 F304	Western Forge	Flange (113-6)
T68105	SA-516 Gr 70	U.S. Steel	Stiffener (501-5)
A6502	SA-36	Lukens	Motor Flange (501-1)
(d) Other Parts D4957			
3148-1	SA-240 Tp 304	G.O. Carlson	Hanger Lug (501-4)
8994	SA-479 Tp 304	Metrix Mfg.	Lugs (113-7)
1-47587	SA-240 Tp 304	Metrix Mfg.	Elbow (402-2)
T68105	SA-516 Gr 70	Eagle Metals	Bracket (402-4)
A6502	SA-36	U.S. Steel	Barrel (501-3)
820128	SA-312 Tp 304	Lukens Steel	Brace (501-8, -9)
M2972	SA-312 Tp 304	Combustion Engr'g	Pipe (606-1, 607-1 thru -4)
837615 (V10)	SA-182 F304	Capitol Pipe	Pipe (609-1 thru -5)
623346, 614320	SA-182 F304	Standard	Tee (609-6)
		Western Forge	Flange (609-8)

9. Hydraulic test 2065 psi. Disk Differential test pressure NA psi.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div.-1, Edition 1974.  
 Addenda Summer '76 Code Case No. 1567 & 1820 Date MAY 27 1981  
 Signed Bingham-Willamette Company by George D. Hahn  
 (N Certificate Holder)  
 Our ASME Certificate of Authorization No. N-1654 to use the N symbol expires 2/28/83  
 (Date)

CERTIFICATION OF DESIGN

Design information on file at Bingham-Willamette Company  
 Stress analysis report (Class 3 only) on file at Bingham-Willamette Company

Design specifications certified by (1) H. Tafarrodi  
 PE-State Calif. Reg. No. 15110  
 Stress analysis certified by (2) Narsim Ganti  
 PE-State Calif. Reg. No. 17612

(1) Signature not required. List name only.

CERTIFICATE OF SHOP 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 Oregon and employed by Department of Commerce  
 of MAY 27 1981, have inspected the pump, or valve, described in this Data Report on 19, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data 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.

Date MAY 27 1981 19  
 (Inspector) Commissions NBS 8037  
 (Not Bd., State, Prov. and No.)

SO 00N04

CODE DATA REPORT

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**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Reactor Recirculation Cooling (RRC) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with 1971 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda,

Code Case: None **-N-416-1** <sup>KS</sup> 5/16/01

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RRC Pumps	Bingham						Yes, Code Class 1
Mechanical Seal	Bingham	11N92-3	1080	N/A	1983	Replacement	Yes, Code Class 1
Mechanical Seal	Bingham	11N92-4	1081	N/A	1983	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Assembled spare mechanical seal for RRC pumps. The spare mechanical seal for RRC pumps was assembled using parts as follows:

- 1) Used seal holder from mechanical seal Serial No 11N92-4.
- 2) Used upper seal gland from previously removed seal Serial No 11N92-3.
- 3) Used thrust ring from previously removed seal Serial No 11N92-3.

**NOTES -**

- 1) Mechanical seal Serial No 11N92-3 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with 1971 Addenda requirements. See attached N-2 Manufacturer Code Data Report mechanical seal Serial No 11N92-3.
- 2) Mechanical seal Serial No 11N92-4 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with 1971 Addenda requirements. See attached N-2 Manufacturer Code Data Report mechanical seal Serial No 11N92-4.
- 3) The entire mechanical seal assembly is identified by the seal holder Serial No 11N92-4.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached N-2 Manufacturer Code Data Reports for the following:

- 1) Mechanical seal Serial No 11N92-3.
- 2) Mechanical seal Serial No 11N92-4.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 5/9/01 Date 5/9/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/6/01 to 5/10/01 and state 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.

[Signature] Commissions 74866/7486 N.E. IS  
 Inspector's Signature National Board, State, and Endorsements

Date 5/10/01

FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*

As required by the Provisions of the ASME Code Rules

*George Smith*  
579/01

1. (a) Manufactured by Bingham-Willamette Company, Portland, OR  
(Name and address of Manufacturer of part)
- (b) Manufactured for Washington Public Power Supply System, Richland, WA  
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part 11N92 - 3 Nat'l Bd. No. 1080
- (a) Constructed According to Drawing No. J1756 Drawing Prepared by Bingham-Willamette Company
- (b) Description of Part Inspected Mechanical Seal Type RV875B-2
- (c) Applicable ASME Code: Section III, Edition 1971, Addenda date 1971, Case No. HONE Class 1
3. Remarks: To prevent liquids from escaping from pump. PR parts consist of:  
(Brief description of service for which component was designed)
- a.) Seal Holder SN 149285. b.) Gland-Upper Seal SN 1495283. c.) Thrust Ring SN 1513982-1

Seal Hydrotested at 2575 PSI.

Note: Items 4 - 18 not applicable.

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.  
(The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date DEC 8 1983 19 1983 Signed BINGHAM-WILLAMETTE COMPANY  
PORTLAND, OREGON By George Smith  
(Manufacturer)  
Certificate of Authorization Expires February 28, 1986 Certificate of Authorization No. N-1655

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State            Reg. No.           

Stress analysis report certified by N/A Prof. Eng. State            Reg. No.           

CERTIFICATE OF SIOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Oregon and employed by Department of Commerce of            have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on DEC 8 1983 19 1983, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data 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.

Date DEC 8 1983 19 1983

*George Smith* Inspector's Signature

Commissions NB 5036 CR500 National Board, State, Province and No.

\*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) also is 8 1/2" x 11", (2) information in items 1-2 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

S.O. 11N92-3

ITEM 1N2-Code Data Report

PAGE 2

FORM N-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
Girth \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)  
(Top, bottom, ends)  
(a) \_\_\_\_\_  
(b) \_\_\_\_\_  
If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)

7. Jacket Closure: \_\_\_\_\_  
(Describe as edge and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)

8. Design pressure<sup>2</sup> 1650 psi at 575 °F Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft-lb  
at temp. of \_\_\_\_\_ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_

10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ in. Number \_\_\_\_\_ Type \_\_\_\_\_  
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
Girth \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)  
(a) Top, bottom, ends \_\_\_\_\_  
(b) Channel \_\_\_\_\_  
If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Describe or attach sketch)

14. Design pressure<sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ °F Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft-lb  
at temp. of \_\_\_\_\_ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached

17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Skirt (Yes or No) \_\_\_\_\_ Lugs (Number) \_\_\_\_\_ Legs (Number) \_\_\_\_\_ Other (Describe) \_\_\_\_\_ Attached \_\_\_\_\_ (Where & How)

<sup>1</sup> If Postweld Heat-Treated.

<sup>2</sup> List other internal or external pressure with coincident temperature when applicable.

FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*

As required by the Provisions of the ASME Code Rules

*Handwritten:* 5/9/01

1. (a) Manufactured by Bingham-Willamette Company, Portland, OR  
(Name and address of Manufacturer of part)
- (b) Manufactured for Washington Public Power Supply System, Richland, WA  
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part 11H92 - 4 Nat'l Bd. No. 1081
- (a) Constructed According to Drawing No. J1756 Drawing Prepared by Bingham-Willamette Company
- (b) Description of Part Inspected Mechanical Seal Type RV875B-2
- (c) Applicable ASME Code: Section III, Edition 1971, Addenda date 1971, Case No. NONE Class 1
3. Remarks: To prevent liquids from escaping from pump. PB Parts consist of:  
(Brief description of service for which component was designed)
- a.) Seal Holder SN 149285 b.) Gland-Upper Seal SN 1495283

Seal Hydrotested at 2575 PSI.

Note: Items 4 - 18 not applicable

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.  
(The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date DEC 2 1983 Signed BINGHAM-WILLAMETTE COMPANY By George Oldham  
PORTLAND, OREGON  
(Manufacturer)

Certificate of Authorization Expires February 28, 1986 Certificate of Authorization No. N-1655

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file as N/A

Stress analysis report on file as N/A

Design specifications certified by N/A Prof. Eng. State            Reg. No.           

Stress analysis report certified by N/A Prof. Eng. State            Reg. No.           

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Oregon and employed by Department of Commerce of            have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on DEC 8 1983 19          , and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data 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.

Date DEC 8 1983 19          

*[Signature]*  
Inspector's Signature

Commissions NB 80-36 OR 501  
National Board, State, Province and No.

\* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-2 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

S.O. 11H92-4  
ITEM EN2-Code Data Report  
PAGE 2

FORM N-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %

Girth \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_  
6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)  
(Top, bottom, ends)

(a) \_\_\_\_\_

(b) \_\_\_\_\_

If removable, bolts used \_\_\_\_\_ (Material, Spec. No., T.S., Size, Number) Other fastening \_\_\_\_\_ (Describe or attach sketch)

7. Jacket Closure: \_\_\_\_\_ (Describe as edge and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)

8. Design pressure<sup>2</sup> \_\_\_\_\_ 1650 psi at \_\_\_\_\_ 575 °F Drop Weight \_\_\_\_\_ Charpy Impact \_\_\_\_\_ ft-lb at temp. of \_\_\_\_\_ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheet: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_ (Welded, Bolted)  
(Kind & Spec. No.) (Subject to pressure)

Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ in. Number \_\_\_\_\_ Type \_\_\_\_\_ (Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %

Girth \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_  
13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)  
(Top, bottom, ends)

(b) Channel \_\_\_\_\_

If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_ (Describe or attach sketch)

14. Design pressure<sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ °F Drop Weight \_\_\_\_\_ Charpy Impact \_\_\_\_\_ ft-lb at temp. of \_\_\_\_\_ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

16. Nozzles:  
Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached

17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ (Number) \_\_\_\_\_ Legs \_\_\_\_\_ (Number) \_\_\_\_\_ Other \_\_\_\_\_ (Describe) Attached \_\_\_\_\_ (Where & How)

<sup>1</sup> If Postweld Heat-Treated.

<sup>2</sup> List other internal or external pressure with coincident temperature when applicable.

S.O. IIN92-4  
ITEM 1-N2-Code Data Report  
PAGE 3

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993522. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993523. **(a) Work Performed By:** Energy Northwest**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest**(c) Type Code Symbol Stamp:** Not Applicable**(d) Certificate Of Authorization No.:** Not Applicable**(e) Expiration Date:** Not Applicable4. **Identification Of System:** Reactor Recirculation Cooling (RRC) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RRC-P-1A	Bingham	210009 (B-2-1034)	134	N/A	1974	-----	Yes, Code Class 1
Mechanical Seal	Bingham	11N92-2	1079	N/A	1983	Replaced	Yes, Code Class 1
Mechanical Seal	Bingham	11N92-4	1081	N/A	1983	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing upper mechanical seal for pump RRC-P-1A. The replacement work was performed as follows:

- 1) Removed existing upper mechanical seal, Serial No 11N92-2, National Board No 1079.
- 2) Installed spare replacement upper mechanical seal, Serial No 11N92-4, National Board No 1081.
- 3) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

### NOTES -

- 1) The existing pump RRC-P-1A is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 2) Both the existing mechanical seal, Serial No 11N92-2, National Board No 1079 and the spare replacement mechanical seal, Serial No 11N92-4, National Board No 1081 are certified to comply with ASME Section III, Code Class 1, 1971 Edition with 1971 Addenda requirements.
- 3) The replacement mechanical seal, Serial No 11N92-4, National Board No 1081 was assembled in accordance with ASME Section XI Plan No 2-1741 using seal holder from Serial No 11N92-4, National Board No 1081 and upper seal gland and thrust ring from Serial No 11N92-3, National Board No 1080.
- 4) The entire mechanical seal assembly is identified by the seal holder Serial No 11N92-4, National Board No 1081.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None  
 Test Pressure: 1022 Psig Test Temperature: 215° F  
 Component Design Pressure: 1650 Psig Temperature: 575° F

9. Remarks: See attached N-2 Code Data Reports for Serial No 11N92-3, National Board No 1080 and Serial No 11N92-4, National Board No 1081.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 6/23/01 Date 6/23/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 3/6/01 to 7/11/01 and state 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.

[Signature] Commissions 74186W/74186 N I I S  
 Inspector's Signature National Board, State, and Endorsements

Date 7/11/01

PLAN No. 2-1742

FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*

As required by the Provisions of the ASME Code Rules

*Kuldip Singh*  
6/12/01

1. (a) Manufactured by Bingham-Willamette Company, Portland, OR  
(Name and address of Manufacturer of part)
- (b) Manufactured for Washington Public Power Supply System, Richland, WA  
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part 11N92 - 3 Nat'l Bd. No. 1080
- (a) Constructed According to Drawing No. J1756 Drawing Prepared by Bingham-Willamette Company
- (b) Description of Part Inspected Mechanical Seal Type RV875B-2
- (c) Applicable ASME Code: Section III, Edition 1971, Addenda date 1971, Case No. NONE Class 1
3. Remarks: To prevent liquids from escaping from pump. PR parts consist of:  
(Brief description of service for which component was designed)
- a.) Seal Holder SN 149285. b.) Gland-Upper Seal SN 1495283. c.) Thrust Ring SN 1513982-1
- Seal Hydrotested at 2575 PSI.

Note: Items 4 - 18 not applicable.

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.  
(The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date DEC 8 1983 19 Signed BINGHAM-WILLAMETTE COMPANY  
PORTLAND, OREGON By George Allen  
(Manufacturer)

Certificate of Authorization Expires February 28, 1986 Certificate of Authorization No. N-1655

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file as N/A

Stress analysis report on file as N/A

Design specifications certified by N/A Prof. Eng. State            Reg. No.           

Stress analysis report certified by N/A Prof. Eng. State            Reg. No.           

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Oregon and employed by Department of Commerce have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on DEC 8 1983 19, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data 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.

Date DEC 8 1983 19

*[Signature]*  
Inspector's Signature

Commissions NB SC36 CR500  
National Board, State, Province and No.

\*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-2 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

USED UPPER SEAL GLAND  
AND THRUST RING FROM  
S/N 11N92-3

S.O. 11N92-3  
ITEM 1N2 Code Data Report  
PAGE 2

FORM N-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shells: Material T.S. Nominal Thickness in. Corrosion Allowance in. Dia. ft. in. Length ft. in.  
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long H.T.<sup>1</sup> R.T. Efficiency %

Girth H.T.<sup>1</sup> R.T. No. of Courses

6. Heads: (a) Material T.S. (b) Material T.S.  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)

(a)

(b)

If removable, bolts used (Material, Spec. No., T.S., Size, Number) Other fastening (Describe or attach sketch)

7. Jacket Closure: (Describe as edge and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)

8. Design pressure <sup>2</sup> 1650 psi at 575 °F Drop Weight  Charpy Impact  ft-lb at temp. of  °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material (Kind & Spec. No.) Dia. (Subject to pressure) Thickness in. Attachment (Welded, Bolted)

Floating. Material  Dia.  Thickness in. Attachment

10. Tubes: Material  O.D. in. Thickness in. Number  Type (Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shells: Material T.S. Nominal Thickness in. Corrosion Allowance in. Dia. ft. in. Length ft. in.  
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long H.T.<sup>1</sup> R.T. Efficiency %

Girth H.T.<sup>1</sup> R.T. No. of Courses

13. Heads: (a) Material T.S. (b) Material T.S.  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)

(a) Top, bottom, ends

(b) Channel

If removable, bolts used (a)  (b)  (c)  Other fastening (Describe or attach sketch)

14. Design pressure <sup>2</sup>  psi at  °F Drop Weight  Charpy Impact  ft-lb at temp. of  °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number  Size  Location

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached

17. Inspection Manholes, No.  Size  Location

Openings: Handholes, No.  Size  Location

Threaded, No.  Size  Location

18. Supports: Skirt (Yes or No) Lugs (Number) Lugs (Number) Other (Describe) Attached (Where & How)

<sup>1</sup> If Postweld Heat-Treated.

<sup>2</sup> List other internal or external pressure with coincident temperature when applicable.

S.O. 11N92-3

ITEM 1-N2-Code Data Report

PAGE 3

PLAN NO. 2-1742

FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*

As required by the Provisions of the ASME Code Rules

*Supp Supp*  
6/1401

1. (a) Manufactured by Bingham-Willamette Company, Portland, OR  
(Name and address of Manufacturer of part)
- (b) Manufactured for Washington Public Power Supply System, Richland, WA  
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part 11H92 - 4 Nat'l Bd. No. 1081
- (a) Constructed According to Drawing No. J1756 Drawing Prepared by Bingham-Willamette Company
- (b) Description of Part Inspected Mechanical Seal Type RV875B-2
- (c) Applicable ASME Code: Section III, Edition 1971, Addenda date 1971, Case No. NONE Class 1
3. Remarks: To prevent liquids from escaping from pump. PB Parts consist of:  
(Brief description of service for which component was designed)
- a.) Seal Holder SN 149285 b.) Gland-Upper Seal SN 1495283
- Seal Hydrotested at 2575 PSI.

Note: Items 4 - 18 not applicable

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.  
(The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date DEC 3 1983 19 Signed BINGHAM-WILLAMETTE COMPANY  
PORTLAND, OREGON By George Oldham  
(Manufacturer)

Certificate of Authorization Expires February 28, 1986 Certificate of Authorization No. N-1655

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State        Reg. No.       

Stress analysis report certified by N/A Prof. Eng. State        Reg. No.       

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Oregon and employed by Department of Commerce of        have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on DEC 8 1983 19      , and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data 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.

Date DEC 8 1983 19

[Signature] Commissions NB 8036 OR 507  
Inspector's Signature National Board, State, Province and No.

\*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-3 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

USED SEAL HOLDER FROM  
S/N 11N92-4

S.O. 11N92-4  
ITEM 1-N2-Code Data Report  
PAGE 2

**FORM N-2 (back)**

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
Girth \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)  
(Top, bottom, ends)  
(a) \_\_\_\_\_  
(b) \_\_\_\_\_  
If removable, bolts used \_\_\_\_\_ (Material, Spec. No., T.S., Size, Number) Other fastening \_\_\_\_\_ (Describe or attach sketch)

7. Jacket Closure: \_\_\_\_\_  
(Describe as edges and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)

8. Design pressure<sup>2</sup> \_\_\_\_\_ 1650 \_\_\_\_\_ psi at \_\_\_\_\_ 575 \_\_\_\_\_ °F Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft-lb  
at temp. of \_\_\_\_\_ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_

10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_  
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
Girth \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)  
(a) Top, bottom, ends \_\_\_\_\_  
(b) Channel \_\_\_\_\_  
If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_ (Describe or attach sketch)

14. Design pressure<sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ °F Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft-lb  
at temp. of \_\_\_\_\_ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached

17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
(Yes or No) (Number) (Number) (Describe) (Where & How)

<sup>1</sup> If Postweld Heat-Treated.

<sup>2</sup> List other internal or external pressure with coincident temperature when applicable.

S.O. IIN92-4  
ITEM 1-N2-Code Data Report  
PAGE 3

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Low Pressure Core Spray (LPCS) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1974 Edition with Winter 1974 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare Relief Valve (LPCS-RV-18)	Lonergan	138433-1-1 (LPCS-RV-18)	N/A	N/A	1994	Replacement	Yes, Code Class 2

7. **Description Of Work Performed:** Installed test port for spare relief valve Serial No 138433-1-1. The work was performed as follows:

- 1) Machined groove in the spare relief valve discharge flange in accordance with ASME Section XI Plan No 2-1676.
- 2) Surface finished the grooved surfaces in the spare relief valve discharge flange in accordance with ASME Section XI Plan No 2-1676.
- 3) Drilled holes in the spare relief valve discharge flange in accordance with ASME Section XI Plan No 2-1676.
- 4) Installed new male connector on the spare relief valve discharge flange - See Note 2.
- 5) Made required weld - See Note 2.
- 6) Performed visual examination on the final weld. Visual examination results acceptable - See Note 2.
- 7) Performed liquid penetrant (PT) examination on the final weld. Liquid penetrant (PT) examination results acceptable - See Note 2.
- 8) Installed new cap on the male connector - See Note 2.

### NOTES -

- 1) The modified spare relief valve Serial No 138433-1-1 will be installed in the plant as LPCS-RV-18 in accordance with ASME Section XI Plan No 2-1677.
- 2) During the close-out review for ASME Section XI Plan 2-1676, it was determined that the male connector installed for the test port on spare valve Serial No 138433-1-1 (LPCS-RV-18) was welded using the wrong weld metal - See PER No 201-0342 for details. This ASME Section XI Plan No 2-1746 removed the installed male connector and existing weld metal and welded new male connector using the correct weld metal. In addition, new cap was installed on the male connector.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached NV-1 Code Data Report for the spare relief valve Serial No 138433-1-1.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 5/14/01 Date 5/14/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5-26-01 to 5-19-01 and state 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.

J. Foster Commissions 743W/7486 N.I.I.S.  
 Inspector's Signature National Board, State, and Endorsements

Date 5-19-01

FORM NV-1 CERTIFICATE HOLDERS' DATA REPORT FOR PRESSURE VACUUM RELIEF VALVES\*

As Required by the Provisions of the ASME Code, Section III, Division 1

Pg. 1 of 2

1. Manufactured and certified by Kunkle Industries Inc.  
Loneragan Valve Division, 8222 Bluffton Rd., Fort Wayne, IN 46809  
(name and address of NV Certificate Holder)
- Manufactured for Wash Pub Pwr Supply, Accts Pay MD-055, PO Box 968, Richland, VA 99352-0968  
(name and address of Purchaser)
3. Location of installation Wash Pub Pwr Supply, WNP-2 OES Whse Complex, WBS #1, North Power Plt Loop, Richland, VA 99352  
(name and address)
4. Valve ND30FS021-DG Orifice size .658 Nom. inlet size 1 1/2" Outlet size 2"  
(model no., series no.) (in.) (in.) (in.)
5. ASME Code, Section III, Division 1: 1974 WINTER 1974 2 N/A  
(edition) (addenda date) (class) (Code Case no.)
6. Type SPRING 427 FIXED 450° F 641 at 33° MIN. of  
(spring, pilot or power operated) (set pressure, psig) (blowdown, psig) (rated temp.) (hydro. test, psig, inlet)
7. Identification 138433-1-1 N/A A930334 Rev. - N/A 1994  
(Cert. Holder's serial no.) (CRN) (drawing no.) (Nat'l. Bd. no.) (year built)
8. Control ring settings 2 notches down
9. Pressure retaining items: SIN 138433-1-1 (LPCS-RV-18)  
Quadrup Sup 5/9/01

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	T4710-1	SA-216 WCB	70 ksi
<del>Body</del> Cap	J1592-5	SA-216 WCB	70 ksi
<del>Body</del> Bonnet	T2633-9	SA-216 WCB	70 ksi
Nozzle	23016	SA-479 TY 316	75 ksi
Disk	35492	SA-479 TY 316	75 ksi
<del>Body</del> Stem	94918	SA-479 TY 316	75 ksi
<del>Body</del> Comp. Screw	701152	SA-479 TY 316	75 ksi
<del>Body</del> Spring Step	380C3	SA-479 TY 316	75 ksi
Spring	AJ7182	A-313 TY 316	*
<del>Body</del> Nut	8079541/N4C	SA-194 GR 2H	N/A
<del>Body</del> Stud	8866612	SA-193 GR B7	125 ksi

(CONTINUED IN BLOCK 11)

10. Relieving capacity 98,200 (196.4 GPM) @ 10% overpressure as certified by the National Board 4-16-85  
(steam or fluid, lb/hr) (psi) (date)
11. Remarks: Gag Plug Screw 30091 SA-479 TY 316 75 ksi  
Ring Pin Screw 30091 SA-479 TY 316 75 ksi  
Plug 18450 SA-479 TY 316 75 ksi

\* Spring exempt from material requirements of NC-2000 but meets design requirements of NC-3595.

CERTIFICATION OF DESIGN

Design Specification certified by D. Murphy \* P.E. State WA Reg. no. 12542  
Design Report certified by N/A P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

NV Certificate of Authorization No. N-2853 Expires November 18, 1994  
Date 7-27-94 Name Loneragan Valve Division Signed D. Murphy  
(NV Certificate Holder) (authorized representative)

\* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 1 through 4 on this Data Report included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

Certificate Holder's Serial No. 138433-1-1

## CERTIFICATE OF 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 Michigan and employed by BSBI & I Co.

of Hartford, CT have inspected the valve described in this Data Report on July 27, 1994, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this valve in accordance with the ASME Code, Section III, Division 1.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data 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.

Date 7-27-94 Signed Richard P. Dwyer Commissions NB 7444 (NBIA) IND 84D  
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

8/1/94

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Date:** 05/05/01

**Sheet:** 1 Of 1

**Unit:** Not Applicable

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Reactor Core Isolation Cooling (RCIC) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with no Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCIC-P-1	Bingham	B-2-1061	161	N/A	1973	Repaired	Yes, Code Class 2

7. **Description Of Work Performed:** Repaired pump RCIC-P-1 outboard end cover (item 22-1). The repair work was performed as follows:

- 1) Performed weld build up of the worn areas on the outboard end cover.
- 2) Machined the weld built up areas on the outboard end cover.
- 3) Performed liquid penetrant (PT) examination on the final machined areas. Liquid penetrant (PT) examination results acceptable.
- 4) Performed VT-3 visual examination on the existing studs for the outboard end cover joint. VT-3 visual examination results acceptable.
- 5) Performed VT-3 visual examination on the existing nuts for the outboard end cover joint. VT-3 visual examination results acceptable.
- 6) Reinstalled outboard end cover.
- 7) Reinstalled VT-3 visually examined existing studs and nuts for the outboard end cover.
- 8) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

# ENERGY NORTHWEST

PLAN No 2-1747

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None  
Test Pressure: 1200 Psig Test Temperature: 80° F  
Component Design Pressure: 1500 Psig Temperature: 40 to 140° F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this repair conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 5/5/01 Date 5/5/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5-3-01 to 5-12-01 and state 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.

[Signature] Commissions 7486W/7486 IN IS.  
Inspector's Signature National Board, State, and Endorsements

Date 5-12-01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) **Work Performed By:** Energy Northwest  
 (b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest  
 (c) **Type Code Symbol Stamp:** Not Applicable  
 (d) **Certificate Of Authorization No.:** Not Applicable  
 (e) **Expiration Date:** Not Applicable
4. **Identification Of System:** Residual Heat Removal (RHR) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None  
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 06/13/01

Sheet: 1 Of 1

Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-2C	WPPSS *	RHR(1)-2C-P1	N/A	N/A	1883	-----	Yes, Code Class 2
RHR(4)-1C	WPPSS *	RHR(4)-1C-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR-RV-25C	Lonergan	509258-75-1	N/A	N/A	1982	-----	Yes, Code Class 2

7. **Description Of Work Performed:** The existing relief valve RHR-RV-25C was removed and reinstalled. The removal and reinstallation work was performed as follows:

- 1) Removed existing relief valve RHR-RV-25C, Serial No 509258-75-1 to refurbish (recondition). Provisions were provided to replace the nozzle during refurbishing (reconditioning) activities, how ever relief valve nozzle was not replaced.
- 2) Performed VT-3 visual examination on the existing studs for the relief valve outlet joint. VT-3 visual examination results acceptable.
- 3) Performed VT-3 visual examination on the existing nuts for the relief valve outlet joint. VT-3 visual examination results acceptable.
- 4) Reinstalled relief valve RHR-RV-25C, Serial No 509258-75-1.
- 5) Reinstalled VT-3 visually examined existing studs and nuts for the relief valve outlet joint.
- 6) Reinstalled existing studs and nuts for the relief valve inlet joint.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system applicable to relief valve RHR-RV-25C, Serial No 509258-75-1 inlet side is Residual Heat Removal (RHR) piping system RHR(1)-2C-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to relief valve RHR-RV-25C, Serial No 509258-75-1 outlet side is Residual Heat Removal (RHR) piping system RHR(4)-1C-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The existing relief valve RHR-RV-25C, Serial No 509258-75-1 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1974 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐ None

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date

6/13/01

Date

6/13/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/26/01 to 6/22/01 and state 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.

A. M. Furst  
Inspector's Signature

Commissions 74866/7486 N.I.I.S.  
National Board, State, and Endorsements

Date

6/22/01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Diesel Cooling Water (DCW) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 3, 1974 Edition with Winter 1974 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
DCW-HX-1B2	American Standard	8-20004-01-2	N/A	N/A	1976	Replacement	Yes, Code Class 3

7. **Description Of Work Performed:** Replaced studs and nuts for heat exchanger DCW-HX-1B2. The replacement work on the channel/tube sheet bolted joint and back channel/tube sheet bolted joint was performed as follows:

### Channel/Tube Sheet Bolted Joint

- 1) Removed existing studs and nuts.
- 2) Installed twenty eight (28) replacement studs.
- 3) Installed fifty six (56) replacement nuts.
- 4) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

### Back Channel/Tube Sheet Bolted Joint

- 1) Removed existing studs and nuts.
- 2) Installed twenty eight (28) replacement studs.
- 3) Installed fifty six (56) replacement nuts.
- 4) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☒ Nominal Operating Pressure ☐ Other ☐ None  
 Test Pressure: 56 Psig Test Temperature: 165° F  
 Component Design Pressure: 150 Psig Temperature: 300° F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 6/13/01 Date 6/13/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5-26-01 to 6-15-01 and state 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.

A. M. East Commissions 7486 w/7486 re-iss  
 Inspector's Signature National Board, State, and Endorsements

Date 6-15-01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. **(a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

4. **Identification Of System:** Service Water (SW) System

5. **(a) Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: N-416-1

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW(2)-2UG	WPPSS *	SW(2)-2UG-P1	N/A	N/A	1983	Repaired	Yes, Code Class 3

7. **Description Of Work Performed:** Repaired by welding pits on the inside (ID) surfaces of elbow and flange to elbow circumferential butt weld down stream side of valve SW-V-2B. The repair work was performed as follows:

- 1) Weld repaired (weld built up) pits on the inside (ID) surfaces.
- 2) Ground/blended the weld repaired areas on the inside (ID) surfaces flush with the adjacent base metal to match the contour of the inside surfaces.
- 3) Performed visual examination on the final ground/blended inside (ID) surfaces. Visual examination results acceptable.
- 4) Performed magnetic particle (MT) examination on the final ground/blended inside (ID) surfaces. Magnetic particle (MT) examination results acceptable.
- 5) Performed radiographic (RT) examination on the final ground/blended inside (ID) surfaces. Radiographic (RT) examination results were acceptable.
- 6) Performed VT-3 visual examination on the existing bolts for the valve bolted joints. VT-3 visual examination results acceptable.
- 7) Reinstalled spacers and valve SW-V-2B.
- 8) Reinstalled VT-3 visually examined existing bolts for the valve bolted joints.
- 9) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the valve bolted joints, elbow and flange to elbow circumferential butt weld. No evidence of leakage during the pressure test.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The magnetic particle (MT) examination on the final ground/blended inside (ID) surfaces was performed in accordance with the requirements of ASME Section III, Code Class 3, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 3) The radiographic (RT) examination on the final ground/blended inside (ID) surfaces was performed in accordance with the requirements of ASME Section III, Code Class 3, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 3) The VT-2 visual examination during pressure test to confirm pressure boundary integrity of the valve bolted joints, elbow and flange to elbow circumferential butt weld was performed in accordance with the requirements of ASME Section XI, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None  
 Test Pressure: 210 Psig Test Temperature: 58° F  
 Component Design Pressure: 309 Psig Temperature: 150° F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this repair conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 6/29/01 Date 6/29/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/27/01 to 7/10/01 and state 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.

[Signature] Commissions 7486 W / 7486 N.I.I.  
 Inspector's Signature National Board, State, and Endorsements

Date 7/10/01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Reactor Recirculation Cooling (RRC) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RRC-P-1A	Bingham	210099	134	N/A	1974	Repaired	Yes, Code Class 1

7. **Description Of Work Performed:** Removed unacceptable PT indication from shock suppressor lug weld for pump RRC-P-1A. The repair work was performed as follows:

- 1) Removed (locally) unacceptable PT indication by mechanical means.
- 2) Uniformly blended the excavation into the surrounding surfaces.
- 3) Performed liquid penetrant (PT) examination on the excavated surfaces. Liquid penetrant (PT) examination results acceptable.
- 4) Performed visual examination on the weld excavated surfaces to determine if the fillet leg size and profile complies with the design requirements. The fillet leg size and profile complied with the design requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this repair conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date

6/13/01

Date

6/13/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5-31-01 to 6-15-01 and state 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.

M. M. Foster  
Inspector's Signature

Commissions 748602/748602 NI  
National Board, State, and Endorsements

Date

6-15-01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Date:** 06/13/01

**Sheet:** 1 Of 1

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Unit:** Not Applicable

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Diesel Cooling Water (DCW) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 3, 1974 Edition with Winter 1974 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
DCW-HX-1A1	American Standard	8-20004-02-1	N/A	N/A	1976	Replacement	Yes, Code Class 3

7. **Description Of Work Performed:** Replaced studs and nuts for heat exchanger DCW-HX-1A1. The replacement work on the channel/tube sheet bolted joint and back channel/tube sheet bolted joint was performed as follows:

### Channel Cover Plate (Stationary End) Bolted Joint

- 1) Removed existing studs and nuts.
- 2) Installed twenty eight (28) replacement studs.
- 3) Installed fifty six (56) replacement nuts.
- 4) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

### Channel/Tube Sheet (Stationary End) Bolted Joint

- 1) Removed existing studs and nuts.
- 2) Installed twenty eight (28) replacement studs.
- 3) Installed fifty six (56) replacement nuts.
- 4) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

### Back Channel Cover Plate (Packed End) Bolted Joint

- 1) Removed existing studs and nuts.
- 2) Installed twenty eight (28) replacement studs.
- 3) Installed fifty six (56) replacement nuts.
- 4) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

### Back Channel/Tube Sheet (Packed End) Bolted Joint

- 1) Removed existing studs and nuts.
- 2) Installed twenty eight (28) replacement studs.
- 3) Installed fifty six (56) replacement nuts.
- 4) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☒ Nominal Operating Pressure ☐ Other ☐ None

Test Pressure: 65 Psig

Test Temperature: 164° F

Component Design Pressure: 150/300 Psig

Temperature: 300/300° F

9. Remarks: 1) Component design pressure of 150 Psig and design temperature of 300° F is for heat exchanger DCW-HX-1A1 shell side.  
2) Component design pressure of 300 Psig and design temperature of 300° F is for heat exchanger DCW-HX-1A1 channel side.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date

6/13/01

Date

6/13/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5-31-01 to 6-15-01 and state 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.

H. M. Foster

Inspector's Signature

Commissions

7118644/74186 N.I.

National Board, State, and Endorsements

Date

6-15-01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993522. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993523. **(a) Work Performed By:** Energy Northwest**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest**(c) Type Code Symbol Stamp:** Not Applicable**(d) Certificate Of Authorization No.:** Not Applicable**(e) Expiration Date:** Not Applicable4. **Identification Of System:** Service Water (SW) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: N-416-16. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW(22)-2	WPPSS *	SW(22)-2-P1	N/A	N/A	1983	Replacement	Yes, Code Class 3

**7. Description Of Work Performed:** Replaced existing 2" NPS Service Water (SW) section of pipe with the through wall hole. The replacement work was performed as follows:

- 1) Cut/ground existing socket weld and existing circumferential butt weld.
- 2) Removed existing section of pipe with the through wall hole.
- 3) Installed replacement section of pipe.
- 4) Made required socket weld.
- 5) Performed visual examination on the final socket weld. Visual examination results acceptable.
- 6) Made required root pass weld for circumferential butt weld.
- 7) Performed visual examination on the root pass for circumferential butt. Visual examination results acceptable.
- 8) Performed magnetic particle (MT) examination on the root pass for circumferential butt weld. Magnetic particle (MT) examination results acceptable.
- 9) Made required cover pass (final) for circumferential butt weld.
- 10) Performed visual examination on the cover pass (final) for circumferential butt. Visual examination results acceptable.
- 11) Performed magnetic particle (MT) examination on the cover pass (final) for circumferential butt weld. Magnetic particle (MT) examination results acceptable.
- 12) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The magnetic particle (MT) examination on the final socket weld was performed in accordance with the requirements of ASME Section III, Code Class 3, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 3) The magnetic particle (MT) examination on the root pass and cover pass (final) for circumferential butt weld was performed in accordance with the requirements of ASME Section III, Code Class 3, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 4) The VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints was performed in accordance with the requirements of ASME Section XI, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None  
 Test Pressure: 209 Psig Test Temperature: 63° F  
 Component Design Pressure: 309 Psig Temperature: 150° F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 6/29/01 Date 6/29/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 6/24/01 to 7/24/01 and state 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.

[Signature] Commissions 74864/7486 NBS IS  
 Inspector's Signature National Board, State, and Endorsements

Date 7/24/01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Main Steam (MS) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS(1)-4D MS-1010N(E) Rigid Strut	WPPSS *	MS(1)-4D-P1 NA-2295-027-18	N/A	N/A	1983	-----	Yes, Code Class 2
MS-1010N(E) Rigid Strut	NPS		N/A	N/A	1988	Replaced	Yes, Code Class NF(1)
	Lisega	1234-3-17	N/A	N/A	1992	Replacement	No, Code Class NF(1)

7. **Description Of Work Performed:** Replaced existing rigid strut for support MS-1010N(E). The replacement work was performed as follows:

- 1) Removed existing rigid strut, Serial No NA-2295-027-18.
- 2) Installed replacement rigid strut, Serial No 1234-3-17.
- 3) Installed new bolts.
- 4) Performed VT-3 visual examination on support MS-1010N(E) to satisfy Inservice Inspections (ISI)/Preservice Inspections (PSI) requirements. VT-3 visual examination results acceptable.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement rigid strut, Serial No 1234-3-17 installed is Main Steam (MS) piping system MS(1)-4D-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 3) ASME Section III, Code Class NF(1) rigid strut for ASME Section III, Code Class NF(2) application.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date 6/21/01

Date 6/21/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/13/01 to 6/22/01 and state 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.

[Signature]  
Inspector's Signature

Commissions 7486W/7486 N I I  
National Board, State, and Endorsements

Date 6/22/01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Date:** 06/23/01

**Sheet:** 1 Of 1

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Unit:** Not Applicable

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Main Steam (MS) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS(1)-4A	WPPSS *	MS(1)-4A-P3	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Replaced one (1) stud for Reactor Pressure Vessel (RPV) head vent nozzle N-8 bolted joint.

The replacement work was performed as follows:

- 1) Removed existing studs.
- 2) Performed VT-3 visual examination on the existing studs. VT-3 visual examination results acceptable.
- 3) Removed existing nuts.
- 4) Performed VT-3 visual examination on the existing nuts. VT-3 visual examination results acceptable.
- 5) Performed VT-1 visual examination on one (1) replacement stud. VT-1 visual examination results acceptable.
- 6) Reinstalled VT-3 visually examined existing studs.
- 7) Reinstalled VT-3 visually examined existing nuts.
- 8) Installed one (1) VT-1 visually examined stud.
- 9) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None  
 Test Pressure: 1022 Psig Test Temperature: 215° F  
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 6/23/01 Date 6/23/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 6/4/01 to 7/11/01 and state 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.

A. M. Bost Commissions 74186 W / 7486 RI 43  
 Inspector's Signature National Board, State, and Endorsements

Date 7/11/01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Main Steam (MS) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1972 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS-V-20 Disc Disc	Anchor Darling Anchor Darling BW/IP	R-Z337-1-1 9 1	N/A N/A N/A	N/A N/A N/A	1995 1994 1997	----- Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

7. **Description Of Work Performed:** Replaced existing disc for valve MS-V-20. The replacement work was performed as follows:

- 1) Removed existing valve disc, Serial No 9.
- 2) Assembled replacement valve disc, Serial No 1 and disc nut.
- 3) Made required valve disc to disc nut welds.
- 4) Performed visual examination on the final welds. Visual examination results acceptable.
- 5) Performed liquid penetrant (PT) examination on the final welds. Liquid penetrant (PT) examination results acceptable.
- 6) Installed replacement valve disc, Serial No 1 in the valve.
- 7) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

### NOTES -

- 1) Valve parts for Anchor Darling valves are manufactured by BW/IP International, Inc.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None  
 Test Pressure: 935 Psig Test Temperature: 530° F  
 Component Design Pressure: 1717 Psig Temperature: 575° F

9. Remarks: See attached N-2 Code Data Report for the replacement valve disc, Serial No 1.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 6/27/01 Date 6/27/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 6/1/01 to 7/24/01 and state 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.

[Signature] Commissions 74864/7488 NIS IS  
 Inspector's Signature National Board, State, and Endorsements

Date 7/24/01

PLAN NO. 2-1758

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*

As required by the Provision of the ASME Code Rules, Section III, Div. I

*Check Sup 6/10/01*

1. (a) Manufactured by BW/IP International, Inc. Valve Division, 701 First St., Williamsport, PA  
(Name and address of NPT Certificate Holder)
- (b) Manufactured for Washington Public Power Supply System, P.O. Box 968, Richland, WA 99352  
(Name and address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holder's Serial No. of Part S/N - 1 Nat'l Bd. No. N/A
  - (a) Constructed According to Drawing No. D12090 Drawing Prepared by BW/IP International, Inc. Valve Division
  - (b) Description of Part Inspected Disc, Heat No. 24-2297 SA105
  - (c) Applicable ASME Code: Section III, Edition 1971, Addenda date Wnt '72, Case No. --- Class 2
3. Remarks: Spare Part for 3"-900#-Globe Stop Valve  
(Brief description of service for which component was designed)  
BW/IP S.O. No.: P-343D-1  
No Disc Hydro Performed MS-V-20, DISC S/N 1

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.  
(The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

BW/IP International, Inc.

on 7-23 19 97 Signed Valve Division By *Delia Londevelage*  
(NPT Certificate Holder)

Certificate of Authorization Expires 4/15/98 Certificate of Authorization No. N1713

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at \_\_\_\_\_  
Stress analysis report on file at \_\_\_\_\_  
Design specifications certified by \_\_\_\_\_ Prof. Eng. State \_\_\_\_\_ Reg. No. \_\_\_\_\_  
Stress analysis report certified by \_\_\_\_\_ Prof. Eng. State \_\_\_\_\_ Reg. No. \_\_\_\_\_

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Pennsylvania and employed by Commercial Union Insurance Company of Boston, Mass. have inspected the part of a pressure vessel described in this

Partial Data Report on 5-20-97 thru 7-28-97 19 97, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data 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.

Date 7-28 19 97

*Charles Young* Commissions Pennsylvania 2392  
Inspector's Signature National Board, State, Province and No.

\*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-3 on this Data Report is included on each sheet and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 06/29/01**Sheet:** 1 Of 12. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Unit:** Not Applicable3. **(a) Work Performed By:** Energy Northwest**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest**(c) Type Code Symbol Stamp:** Not Applicable**(d) Certificate Of Authorization No.:** Not Applicable**(e) Expiration Date:** Not Applicable4. **Identification Of System:** Service Water (SW) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: N-416-16. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW(1)-2UG	WPPSS *	SW(1)-2UG-P1	N/A	N/A	1983	Repaired	Yes, Code Class 3

7. **Description Of Work Performed:** A) Repaired by welding pits (Pit No 2 and 3 base metal repairs) on the inside (ID) surfaces of elbow and flange to elbow circumferential butt weld down stream side of valve SW-V-2A. The repair work was performed as follows:

- 1) Weld repaired (weld built up) pits on the inside (ID) surfaces.
- 2) Ground/blended the weld repaired areas on the inside (ID) surfaces flush with the adjacent base metal to match the contour of the inside surfaces.
- 3) Performed visual examination on the final ground/blended inside (ID) surfaces. Visual examination results acceptable.
- 4) Performed magnetic particle (MT) examination on the final ground/blended inside (ID) surfaces. Magnetic particle (MT) examination results acceptable.
- 5) Performed radiographic (RT) examination on the final ground/blended inside (ID) surfaces. Radiographic (RT) examination results were acceptable.
- 6) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test.

B) Repaired by welding pit (Pit No 1 stainless steel weld overlay) on the inside (ID) surfaces of elbow down stream side of valve SW-V-2A. The repair work was performed as follows:

- 1) Weld repaired (weld built up) stainless steel weld overlay.
- 2) Ground/blended the weld repaired areas on the inside (ID) surfaces flush with the adjacent metal to match the contour of the inside surfaces.
- 3) Performed visual examination on the final ground/blended inside (ID) surfaces. Visual examination results acceptable.
- 4) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The magnetic particle (MT) examination on the final ground/blended inside (ID) surfaces was performed in accordance with the requirements of ASME Section III, Code Class 3, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 3) The radiographic (RT) examination on the final ground/blended inside (ID) surfaces was performed in accordance with the requirements of ASME Section III, Code Class 3, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 3) The VT-2 visual examination during pressure test to confirm pressure boundary integrity of the valve bolted joints, elbow and flange to elbow circumferential butt weld was performed in accordance with the requirements of ASME Section XI, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None  
 Test Pressure: 215 Psig Test Temperature: 63° F  
 Component Design Pressure: 309 Psig Temperature: 150° F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this repair conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 6/29/01 Date 6/29/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 6/5/01 to 7/24/01 and state 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.

[Signature] Commissions 7486W/7486 NIS ES  
 Inspector's Signature National Board, State, and Endorsements

Date 7/24/01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. **(a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

4. **Identification Of System:** Containment Instrument Air (CIA) System

5. **(a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CIA(3)-2	WPPSS *	CIA(3)-2-P1	N/A	N/A	1983	-----	Yes, Code Class 2

7. **Description Of Work Performed:** Replaced studs and nuts for the bolted piping flanged joint for flex hose CIA-FLX-1J. The replacement work was performed as follows:

- 1) Installed eight (8) new studs for the bolted piping flanged joint.
- 2) Installed sixteen (16) new nuts for the bolted piping flanged joint.
- 3) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the bolted piping flanged joint. No evidence of leakage during the pressure test.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐  
 Test Pressure: 185 Psig Test Temperature: 79° F  
 Component Design Pressure: 200 Psig Temperature: 340° F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 6/29/01 Date 6/29/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 6/6/01 to 7/24/01 and state 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.

J. M. East Commissions 7486 W / 7484 NIS IS,  
 Inspector's Signature National Board, State, and Endorsements

Date 7/24/01



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Reactor Building Closed Cooling (RCC) System

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCC(36)-1	WPPSS *	RCC(36)-1-P1	N/A	N/A	1983	-----	Yes, Code Class 3

**7. Description Of Work Performed:** Repaired (modified) snubber transition kit (tube kit) for support RCC-161. The repair work was performed as follows:

- 1) Cut/ground existing snubber transition kit (tube kit) weld.
- 2) Reassemble snubber transition kit (tube kit).
- 3) Made required weld.
- 4) Performed visual examination on the final socket welds. Visual examination results acceptable.

**NOTES -**

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) ASME Section III, Code Class NF(3) for support RCC-161.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this repair conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 6/29/01 Date 6/29/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 6/18/01 to 7/24/01 and state 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.

[Signature] Commissions 7486W/7486 NIS IS  
 Inspector's Signature National Board, State, and Endorsements

Date 7/24/01



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

- 1. Owner:** Energy Northwest  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
- 2. Plant:** Columbia Generating Station  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
- 3. (a) Work Performed By:** Energy Northwest  
**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest  
**(c) Type Code Symbol Stamp:** Not Applicable  
**(d) Certificate Of Authorization No.:** Not Applicable  
**(e) Expiration Date:** Not Applicable
- 4. Identification Of System:** High Pressure Core Spray (HPCS) System
- 5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Summer 1971 Addenda, Code Case: None  
**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None
- 6. Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 07/19/01

Sheet: 1 Of 1

Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
HPCS-V-4 Disc Disc	Anchor Darling Anchor Darling Anchor Darling	E5310-4-1 5 or 6 1 (H/N 220872)	N/A N/A N/A	N/A N/A N/A	1974 N/A N/A	----- Replaced Replacement	Yes, Code Class 1 No, Code Class 1 Yes, Code Class 1

**7. Description Of Work Performed:** : Replaced disc for valve HPCS-V-4. The replacement work was performed as follows:

- 1) Removed the existing disc from the valve - See Note 1.
- 2) Installed the replacement disc in the valve - See Note 1.

**NOTES-**

- 1) HPCS-V-4 is a double (duel) disc valve. The hole was drilled on the Reactor Pressure Vessel (RPV) side of the valve disc in accordance with ASME Section XI Plan No 2-1734.
- 2) VT-3 visual examination on the existing studs and nuts for the valve body to bonnet joint was performed in accordance with ASME Section XI Plan No 2-1734.
- 3) VT-2 visual examination during pressure test to confirm pressure boundary integrity of the valve body to bonnet joint was performed in accordance with ASME Section XI Plan No 2-1734.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached N-2 Code Data Report for the replacement valve disc, Serial No 1, Heat No 220872.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this repair conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 7/23/01 Date 7/23/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 6/8/01 to 7/24/01 and state 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.

A. M. Firth Commissions 74864/7486 NIS IS  
 Inspector's Signature National Board, State, and Endorsements

Date 7/24/01

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*

As required by the Provision of the ASME Code Rules, Section III, Div. 1

PLAN NO. 2-1762

*Buildup Sup 5*

1. (a) Manufactured by Anchor/Darling Valve Co., 701 First St., Williamsport, PA 17701  
(Name and address of NPT Certificate Holder)
- (b) Manufactured for Washington Public Power Supply System, P.O. Box 968, Richland, WA 99352  
(Name and address of N Certificate Holder for completed nuclear component) (WNP-2 Site)
2. Identification-Certificate Holder's Serial No. of Part S/N - 1 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No. C10887 Drawing Prepared by Anchor/Darling Valve Company
- (b) Description of Part Inspected Disc, Heat No. 220872 SA105
- (c) Applicable ASME Code: Section III, Edition 1980, Addenda date Sum '82, Case No. N/A Class 1
3. Remarks: 12"-900# Double Disc  
(Brief description of service for which component was designed)  
A/DV S.O. P-2478-8  
Note: No Disc Hydro Performed

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.  
(The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Signed 10/6 19 83 Anchor/Darling Valve Co. By R L Stannett  
(NPT Certificate Holder)

Certificate of Authorization Expires 4/15/86 Certificate of Authorization No. N1713

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at \_\_\_\_\_  
Stress analysis report on file at \_\_\_\_\_  
Design specifications certified by \_\_\_\_\_ Prof. Eng. State \_\_\_\_\_ Reg. No. \_\_\_\_\_  
Stress analysis report certified by \_\_\_\_\_ Prof. Eng. State \_\_\_\_\_ Reg. No. \_\_\_\_\_

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State ~~of~~ Pennsylvania and employed by Commercial Union Insurance Company of Boston, Mass. have inspected the part of a pressure vessel described in this Partial Data Report on 8-10 thru 10-6-83 19 83 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.  
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data 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.

Date 10-6 19 83

Russell E. Montgomery  
Inspector's Signature

Commissions Pennsylvania WC972  
National Board, State, Province and No.

\*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Traversing Incore Probe (TIP) System

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Summer 1972 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda,  
Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Containment Penetration X-27C	PDM	12764	790	N/A	1976	-----	Yes, Code Class 2
TIP-V-3	Crosby	N96297-00-0003	N/A	N/A	1988	Replaced	Yes, Code Class 2
TIP-V-3	Crosby	N96297-01-0006	N/A	N/A	1998	Replacement	Yes, Code Class 2

**7. Description Of Work Performed:** Replaced existing valve TIP-V-3. The replacement work was performed as follows:

- 1) Removed existing valve TIP-V-3, Serial No N96297-00-0003.
- 2) Installed replacement pipe plug for valve TIP-V-3, Serial No N96297-00-0003.
- 3) Installed replacement valve TIP-V-3, Serial No N96297-01-0006.

### NOTES -

- 1) The existing valve TIP-V-3, Serial No N96297-00-0003 was installed in accordance with ASME Section XI Plan No 2-0405. This plan referenced N-1 Code Data Report issued by PDM for Containment Vessel, Penetration No X-27C. This ASME Section XI plan also referenced N-1 Code Data Report issued by PDM for Containment Vessel, Penetration No X-27C to document replacement of TIP-V-3, Serial No N96297-01-0006. The N-1 Code Data Report certifies the Containment Vessel, Penetration No X-27C to comply with ASME Section III, Code Class MC, 1971 Edition with Summer 1972 Addenda requirements.
- 2) The replacement valve TIP-V-3, Serial No N96297-01-0006 is certified to comply with ASME Section III, Code Class 2, 1986 Edition with 1986 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve TIP-V-3, Serial No N96297-01-0006.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 6/14/01 Date 6/14/01

### 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 of \_\_\_\_\_ and employed by \_\_\_\_\_

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period \_\_\_\_\_ to \_\_\_\_\_ and state 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.

Not Required - Replacement 1" NPS And Smaller

Inspector's Signature

Commissions

National Board, State, and Endorsements

Date \_\_\_\_\_

Q.C.-398, Rev. A  
Form NPV-1

As Required by the Provisions of the ASME Code, Section III, Division 1

Pg. 1 of 2

- |  |  |                     |              |                 |
|--|--|---------------------|--------------|-----------------|
| 1. Manufactured and certified by       | Crosby Valve Inc., 43 Kendrick St., Wrentham, MA 02093   |                     |              |                 |
|  | (name and address of N Certificate Holder)               |                     |              |                 |
| 2. Manufactured for                    | WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WA 99352 |                     |              |                 |
|  | (name and address of Purchaser)                          |                     |              |                 |
| 3. Location of installation            | HANFORD 2 NORTH POWER PLANT RICHLAND, WA                 |                     |              |                 |
|  | (name and address)                                       |                     |              |                 |
| 4. Model No., Series No., or Type      | N96297-1   | Drawing             | DS-C-96297-1 | Rev. 0 CRN N/A  |
| 5. ASME Code, Section III, Division 1: | 1986   | 1986                | 2            | N/A             |
|  | (edition)  | (addenda date)      | (class)      | (Code Case no.) |
| 6. Pump or valve                       | BALL VALVE   | Nominal inlet size  | 3/8          | Outlet size 3/8 |
|  |  | (in.)               |              | (in.)           |
| 7. Material:                           | Pressure Retaining Components listed below:              |                     |              |                 |
| 8. Certificate Holder's Serial Number: | N96297-01-0006   | National Board No.: | N/A          |                 |

Part	Serial No. Identification	Material Specification Including Type or Grade
Body	N95058-34-0009	ASME SA479 TYPE 316
Bonnet	N95059-32-0006	ASME SA479 TYPE 316
Other:		
BALL	N95060-34-0010	ASME SA479 TYPE 316
END CAP	N95061-33-0014	ASME SA479 TYPE 316
END CAP	N95061-33-0013	ASME SA479 TYPE 316
TIP-V-3,	S/N N 96297-01-0006	
	Order Supp	
	6/12/01	

Supplemental information in form of data, sketches, or drawings may be used provided (1) size is 8-1/2 X 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (P00037) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM NPV-1 (Back -- Pg. 2 of 2 )Certificate Holder's Serial No. N96297-01-0006

9. Design conditions 75 psi 200 ° F of valve pressure class 150 SPECIAL (1)  
(pressure) (temperature)
10. Cold working pressure 275 psi at 100°F
11. Hydrostatic test 425 psi. Disk differential test pressure 325 psi
12. Remarks: \_\_\_\_\_

## CERTIFICATE OF DESIGN

Design Specification certified by J.R. COLE P.E. State WA Reg. No. 20653  
Design Report certified by N/A P.E. State N/A Reg. No. N/A

## CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-1876 Expires SEPTEMBER 30, 2001

Date 25 Nov 98 Name CROSBY VALVE, INC. Signed [Signature]  
(N Certificate Holder) (authorized representative)

## CERTIFICATE OF 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 Massachusetts and employed by Protection Mutual of Norwood, MA have inspected the pump, or valve, described in this Data Report on November 25, 1998, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data 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.

Date 11-25-98 Signed [Signature] Commissions MA-1418 'N'  
(Authorized Inspector) (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

SATISFACTORY ☒ UNSATISFACTORY ☐

Vijayk Behl II 12/9/98  
RECEIVED INSPECTOR / LEVEL / DATE

0275121045



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Low Pressure Core Spray (LPCS) System

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 2, 1974 Edition with Winter 1974 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda,  
Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
LPCS-RV-31	Loneragan	509258-71-1	N/A	N/A	1979	-----	Yes, Code Class 2

**7. Description Of Work Performed:** Replaced base for existing relief valve LPCS-RV-31. The replacement work was performed as follows:

- 1) Cut/ground existing pipe nipple to base weld and removed the base from the relief valve.
- 2) Assemble replacement base and the existing pipe nipple.
- 3) Made required weld.
- 4) Performed visual examination on the final weld. Visual examination results acceptable.
- 5) Performed liquid penetrant (PT) examination on the final weld. Liquid penetrant (PT) examination results acceptable.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐ None  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Date 6/16/01

Date 6/16/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 6/9/01 to 7/10/01 and state 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.

[Signature]  
 Inspector's Signature

Commissions 74862/7486 NFI  
 National Board, State, and Endorsements

Date 7/10/01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) **Work Performed By:** Energy Northwest  
 (b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest  
 (c) **Type Code Symbol Stamp:** Not Applicable  
 (d) **Certificate Of Authorization No.:** Not Applicable  
 (e) **Expiration Date:** Not Applicable
4. **Identification Of System:** High Pressure Core Spray (HPCS) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Summer 1971 Addenda, Code Case: None  
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 06/29/01

Sheet: 1 Of 1

Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
HPCS-V-12	Anchor Darling	E5310-1-1	N/A	N/A	1974	Repaired	Yes, Code Class 2

7. **Description Of Work Performed:** Removed unacceptable liquid penetrant (PT) examination indication from the body flange for valve HPCS-V-12. The repair work was performed as follows:

- 1) Removed (locally) unacceptable liquid penetrant (PT) indication by mechanical means.
- 2) Performed in process liquid penetrant (PT) examination to minimize the valve flange material removed. In process liquid penetrant (PT) examination results acceptable.
- 3) Uniformly blended the sharp edges of the excavation into the surrounding surfaces.
- 4) Performed visual examination on the final blended excavated surfaces. Visual examination results acceptable.
- 5) Performed liquid penetrant (PT) examination on the final blended excavated surfaces.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this repair conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 6/29/01 Date 6/29/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 6/11/01 to 7/24/01 and state 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.

[Signature] Commissions 7486/7486 NIS IS  
 Inspector's Signature National Board, State, and Endorsements

Date 7/24/01

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Date:** 06/21/01

**Sheet:** 1 Of 1

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Unit:** Not Applicable

3. (a) **Work Performed By:** Energy Northwest

(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest

(c) **Type Code Symbol Stamp:** Not Applicable

(d) **Certificate Of Authorization No.:** Not Applicable

(e) **Expiration Date:** Not Applicable

4. **Identification Of System:** Process Instrumentation (PI) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: None

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
PI(1)-4S-X-78b	JCI	PI(1)-4S-X-78b	N/A	N/A	1982	-----	Yes, Code Class 1

7. **Description Of Work Performed:** Replaced U bolts associated with valve LPCS-V-84. The replacement work was performed as follows:

- 1) Removed existing U bolts from Support No 8 associated with valve LPCS-V-84.
- 2) Installed replacement U bolts from Support No 8 associated with valve LPCS-V-84.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date

6/21/01

Date

6/21/01

### 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 of \_\_\_\_\_ and employed by \_\_\_\_\_

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period \_\_\_\_\_ to \_\_\_\_\_ and state 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.

Not Required - Replacement 1" NPS And Smaller

Commissions

Inspector's Signature

National Board, State, and Endorsements

Date

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 07/06/01**Sheet:** 1 Of 12. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Unit:** Not Applicable3. (a) **Work Performed By:** Energy Northwest(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest(c) **Type Code Symbol Stamp:** Not Applicable(d) **Certificate Of Authorization No.:** Not Applicable(e) **Expiration Date:** Not Applicable4. **Identification Of System:** Main Steam (MS) System5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS(1)-4B MS-162(B) MS-162(B)	WPPSS * Pacific Scientific Pacific Scientific	MS(1)-4B-P1 315 9825	N/A N/A N/A	N/A PSA-10 PSA-10	1983 1976 1981	----- Replaced Replacement	Yes, Code Class 2 Yes, Code Class 1 Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing snubber for support MS-162 (Bottom). The replacement work was performed as follows:

- 1) Removed existing PSA-10 snubber, Serial No 315.
- 2) Installed replacement PSA-10 snubber, Serial No 9825.
- 3) Torqued the fasteners to the required torque value.
- 4) Performed operability test on the replacement snubber. Operability test acceptable.
- 5) Performed VT-3 visual examination on the installed replacement snubber. VT-3 visual examination results acceptable.

**NOTES -**

- 1) B=Bottom snubber
- 2) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 3) The replacement PSA-10 snubber, Serial No 9825 is certified to comply with ASME Section III, Code Class NF(1), 1977 Edition with Winter 1977 Addenda requirements. ASME Section III, Code Class NF(1) snubber for ASME Section III, Code Class NF(2) application.
- 4) The existing ASME Code Stamped piping system in which the replacement snubber, Serial No 9825 was installed is Main Steam (MS) piping system MS(1)-4B-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached NF-1 Code Data Report for the replacement snubber, Serial No 9825.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 7/9/01 Date 7/9/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 7/18/01 to 7/11/01 and state 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.

A. M. [Signature] Commissions 7486W/7486 NI IS  
 Inspector's Signature National Board, State, and Endorsements

Date 7/11/01

W07 No. 01007828 01  
FORM NF-1 NPT CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS\*  
As Required by the Provisions of the ASME Code Rules, Section III, Division 1 470

Manufactured by Pacific Scientific 1346 S. State College Blvd Anaheim, CA 92803  
(Name and address of NPT Certificate Holder)

Manufacturer for PMT Grinnell Corp. 621 Dana Street N.E. Warren, Ohio 44481  
(Name and address of purchaser or owner)

Location of Installation Unknown

Identification

(a) Component Support I.D. No.	(b) Canadian Registration No.	(c) Applicable Drawings with Last Rev. & Date	(d) Stress Report or Load Capacity Data Sheet	(e) Type of Component Support	(f) Class	(g) Nat'l Board No.	(h) Year Built
9775-9802,	None	1801103-07-H	DR-1352-Rev. B	Linear	1	None	1981
9803-9854,	"	"	"	"	"	"	"
9855-9868	"	"	"	"	"	"	"

(4)

(5)

(6)

(7)

(8)

(9)

(10)

Remarks:

MS-162(B), S/N 9825

*Chadwick Supp*  
7/9/01

REVIEWED	8-30-83	BY <i>[Signature]</i>
SEALCO ENGINEERING		
SEALCO MCA REP.		

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that these components supports conform to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Division 1, Edition 1977, Addenda Winter '77.  
(Date)

Code Case No. 1644-7

Date 17 March 1981 Signed Pacific Scientific by Bill Jenkins  
(NPT Certificate Holder)

Our ASME Certificate of Authorization No. 1198 to use the Component Supports  
(NPT)

Symbol expires Aug. 4, 1981  
(Date)

CERTIFICATION OF DESIGN

Design Information on File at Pacific Scientific

Stress Report or Load Capacity Data Sheets on File at:

Pacific Scientific

Filed Per NA 3256

Design Specifications Certified by (1) Leo E. Ay PE State California

Reg. No. 13533

Stress Analysis Report or Load Capacity Data Sheets Certified by (1) Leo E. Ay

PE California Reg. No. 13533

(1) List name only, signature not required.

\*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2 in., (2) information in items 1, 2, 4, 5, 6, 7, 8, 9 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

## CERTIFICATE OF SHOP 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 California and employed by HSBET Co. of Bartford, CT

is 81 have inspected the component supports described in this Data Report on 3/17 and state that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date 3/17/81

Signed William Meyer Commissions Ca. #1494  
(Nat'l Bd., State, Prov., and No.)

## CERTIFICATION OF FIELD 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 \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_

\_\_\_\_\_ have compared the statements in this Data Report with the described component supports and state that the parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me and that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date \_\_\_\_\_

Signed \_\_\_\_\_ Commissions \_\_\_\_\_  
(Nat'l Bd., State, Prov., and No.)

REVIEWED <u>8.30/83</u>	BY <u>[Signature]</u>
EASCO ENGINEERING	
REVIEW VERIFIED BY <u>[Signature]</u>	<input type="checkbox"/>
EASCO QA REP.	



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

1. **Owner:** Energy Northwest  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) **Work Performed By:** Energy Northwest  
 (b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest  
 (c) **Type Code Symbol Stamp:** Not Applicable  
 (d) **Certificate Of Authorization No.:** Not Applicable  
 (e) **Expiration Date:** Not Applicable
4. **Identification Of System:** Main Steam (MS) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None  
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 07/06/01

Sheet: 1 Of 1

Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS(1)-4B MS-148 MS-148	WPPSS * Pacific Scientific Pacific Scientific	MS(1)-4B-P1 9954 9417	N/A N/A N/A	N/A PSA-10 PSA-10	1983 1981 1981	----- Replaced Replacement	Yes, Code Class 2 No, Code Class ** Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing snubber for support MS-148. The replacement work was performed as follows:

- 1) Removed existing PSA-10 snubber, Serial No 9954.
- 2) Installed replacement PSA-10 snubber, Serial No 9417.
- 3) Torqued the fasteners to the required torque value.
- 4) Performed operability test on the replacement snubber. Operability test acceptable.
- 5) Performed VT-3 visual examination on the installed replacement snubber. VT-3 visual examination results acceptable.

**NOTES -**

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) \*\* ASME Section III, Code Class NF snubber.
- 3) The replacement PSA-10 snubber, Serial No 9417 is certified to comply with ASME Section III, Code Class NF(1), 1977 Edition with Winter 1977 Addenda requirements. ASME Section III, Code Class NF(1) snubber for ASME Section III, Code Class NF(2) application.
- 4) The existing ASME Code Stamped piping system in which the replacement snubber, Serial No 9417 was installed is Main Steam (MS) piping system MS(1)-4B-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached NF-1 Code Data Report for the replacement snubber, Serial No 9417.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 7/9/01 Date 7/9/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/18/01 to 7/11/01 and state 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.

M. E. East Commissions 7486 W / 7486 N I E  
 Inspector's Signature National Board, State, and Endorsements

Date 7/11/01

FORM NF-1 NPT CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS\*  
As Required by the Provisions of the ASME Code Rules, Section III, Division 1

REVISED DATA REPORT

#10

1. Manufactured by Pacific Scientific 1346 S. State College Blvd. Anaheim, Ca. 92803  
(Name and address of NPT Certificate Holder)

2. Manufacturer for ITT GRINNELL CORPORATION 621 Dana Street N.E. Warren, Ohio 44481  
(Name and address of purchaser or owner)

3. Location of Installation Unknown E-WT-688

4. Identification

(a) Component Support I.D. No.	(b) Canadian Registration No.	(c) Applicable Drawings with Last Rev. & Date	(d) Stress Report or Load Capa- city Data Sheet	(e) Type of Component Support	(f) Class	(g) Nat'l Board No.	(h) Year Built
(1) <u>9369-9503</u>	<u>None</u>	<u>1801103-07-H</u>	<u>DR-1352-Rev B</u>	<u>Linear</u>	<u>1</u>	<u>None</u>	<u>1981</u>
(2)							
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MS-148, SIN 9417

Quay Supp  
7/9/01

REVIEWED BY	<u>JAG</u>
4-1-82	
REVIEW VERIFIED BY	<u>J.A.B.</u>
VEBASCO VQA REP.	

5. Remarks: Corrected Code Case.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in this report are correct and that these components supports conform to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Division 1, Edition 1977, Addenda Winter '77  
Code Case No. \* 1644-5 (Date)

Date 2/3/81 Signed Pacific Scientific by Rosalie A. Nantz  
(NPT Certificate Holder)

Our ASME Certificate of Authorization No. 1198 to use the Component Support  
(NPT)

Symbol expires Aug. 4, 1981  
(Date)

CERTIFICATION OF DESIGN

Design Information on File at Pacific Scientific

Stress Report or Load Capacity Data Sheets on File at:

Pacific Scientific

Filed Per NA 3256

Design Specifications Certified by (1) Leo E. Ay PE State California

Reg. No. 13533

Stress Analysis Report or Load Capacity Data Sheets Certified by (1)

Leo E. Ay

PE State California Reg. No. 13533

(1) List name only, signature not required.

ITT GRINNELL  
Warren Quality Assurance

FEB 03 1981

Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1, 2, 4c, 4g on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

## CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of  
Province of California and employed by ESBI&I Co. of Hartford, CT

have inspected the component supports described in this Data Report on 2/3  
19 81 and state that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance  
with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date 2/3/81

Signed William Meyer Commissions Ca. #1494  
(Nat'l Bd., State, Prov., and No.)

## CERTIFICATION OF FIELD INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of  
Province of \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_

\_\_\_\_\_ have compared the statements in this Data Report with the described component supports and state  
that the parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been  
inspected by me and that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance  
with the ASME Code for Nuclear Power Plant Components.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date \_\_\_\_\_

Signed \_\_\_\_\_ Commissions \_\_\_\_\_  
(Nat'l Bd., State, Prov., and No.)



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

1. **Owner:** Energy Northwest  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) **Work Performed By:** Energy Northwest  
 (b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest  
 (c) **Type Code Symbol Stamp:** Not Applicable  
 (d) **Certificate Of Authorization No.:** Not Applicable  
 (e) **Expiration Date:** Not Applicable
4. **Identification Of System:** Main Steam (MS) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda, Code Case: None  
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 07/07/01

Sheet: 1 Of 1

Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS(9)-4	WPPSS *	MS(9)-4-P1	N/A	N/A	1983	-----	Yes, Code Class 1
MS-1369-12	Pacific Scientific	2154	N/A	PSA-1/2	1977	Replaced	Yes, Code Class 1
MS-1369-12	Pacific Scientific	429	N/A	PSA-1/2	1976	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing snubber for support MS-1369-12. The replacement work was performed as follows:

- 1) Removed existing PSA-1/2 snubber, Serial No 2154.
- 2) Installed replacement PSA-1/2 snubber, Serial No 429.
- 3) Installed replacement forward adapter assembly.
- 4) Performed operability test on the replacement snubber. Operability test acceptable.
- 5) Performed VT-3 visual examination on the installed replacement snubber. VT-3 visual examination results acceptable.

**NOTES -**

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The replacement PSA-1/2 snubber, Serial No 429 is certified to comply with ASME Section III, Code Class NF(1), 1974 Edition with Winter 1975 Addenda requirements.
- 3) The existing ASME Code Stamped piping system in which the replacement snubber, Serial No 429 was installed is Main Steam (MS) piping system MS(9)-4-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 7/9/01 Date 7/9/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/18/01 to 7/11/01 and state 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.

[Signature] Commissions 7486 W / 7486 N I I S  
 Inspector's Signature National Board, State, and Endorsements

Date 7/11/01



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

Date: 07/09/01

Sheet: 1 Of 1

Unit: Not Applicable

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Main Steam (MS) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,  
Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS(1)-4D MD-1285-14C MD-1285-14C	WPPSS * Pacific Scientific Pacific Scientific	MS(1)-4D-P1 28429 28432	N/A N/A N/A	N/A PSA-1/4 PSA-1/4	1983 1982 1982	----- Replaced Replacement	Yes, Code Class 2 Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Replaced existing snubber for support MD-1285-14C. The replacement work was performed as follows:

- 1) Removed existing PSA-1/4 snubber, Serial No 28429.
- 2) Installed replacement PSA-1/4 snubber, Serial No 28432.
- 3) Installed replacement adapter assembly.
- 4) Performed operability test on the replacement snubber. Operability test acceptable.
- 5) Performed VT-3 visual examination on the installed replacement snubber. VT-3 visual examination results acceptable.

**NOTES -**

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The replacement PSA-1/4 snubber, Serial No 28432 is certified to comply with ASME Section III, Code Class NF(1), 1977 Edition with Winter 1979 Addenda requirements. ASME Section III, Code Class NF(1) snubber for ASME Section III, Code Class NF(2) application.
- 3) The existing ASME Code Stamped piping system in which the replacement snubber, Serial No 28432 was installed is Main Steam (MS) piping system MS(1)-4D-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached NF-1 Code Data Report for the replacement snubber, Serial No 28432.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 7/9/01 Date 7/9/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/18/01 to 7/11/01 and state 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.

M. M. [Signature] Commissions 7486 W / 7486 I N I S  
 Inspector's Signature National Board, State, and Endorsements

Date 7/11/01

WOT No 0100782801 NCE 169#327

**FORM NF-1 NPT CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS\***  
As Required by the Provisions of the ASME Code Rules, Section III, Division 1

**Kin-Tech Division**

1. Manufactured by Pacific Scientific 1346 S. State College Blvd. Anaheim, CA 92803  
(Name and address of NPT Certificate holder)

2. Manufacturer for National Valve & Mfg. Co. P.O. BOX 100 Pittsburgh, PA 15230  
(Name and address of purchaser or owner)

3. Location of Installation Unknown MD-1285-14C, SIN 28432

4. Identification

(a) Component Support I.D. No.	(b) Canadian Registration No.	(c) Applicable Drawings with Last Rev. & Date	(d) Stress Report or Load Capacity Data Sheet	(e) Type of Component Support	(f) Class	(g) Net'l Board No.	(h) Year Built
(1) 28420	NONE	1801104-05-J	DR 1412 Rev.0	Linear	1	NONE	1982
(2) thru							
(3) 28469							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. Remarks: APPROVAL BECHTEL 284  
PHENSTOWN, PA.

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and that these components supports conform to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Division 1, Edition 1977 Addenda Winter '79  
Code Case No. 1644-6 (Date)

Date 4/3/82 Signed Pacific Scientific by Roberto G. Neri  
(NPT Certificate Holder)

Our ASME Certificate of Authorization No. 1198 ✓ to use the "NPT"  
(NPT)

Symbol expires Aug. 4, 1984  
(Date)

**CERTIFICATION OF DESIGN**

Design Information on File at Pacific Scientific

Stress Report or Load Capacity Data Sheets on File at:  
Pacific Scientific  
Filed Per NCA 3256

Design Specifications Certified by (1) James E. Glauser PE State California

Reg. No. 8424

Stress Analysis Report or Load Capacity Data Sheets Certified by (1) James E. Glauser  
State Calif. Reg. No. 8424

(1) List name only, signature not required

\* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2 in., (2) information in items 1, 2, 4c, 4g on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form

### CERTIFICATE OF SHOP 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 California and employed by HSB&I Co. of Hartford, CT SEP. 3 1982

have inspected the component supports described in this Data Report on SEP. 3 1982 and state that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date SEP. 3 1982

Signed *Eugene Regale* Commissions CA-1513 / PA-WC 2781  
(Nat'l Bd., State, Prov., and No.)

### CERTIFICATION OF FIELD 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 \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_

\_\_\_\_\_ have compared the statements in this Data Report with the described component supports and state that the parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me and that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date \_\_\_\_\_

Signed \_\_\_\_\_ Commissions \_\_\_\_\_  
(Nat'l Bd., State, Prov., and No.)

**BECHTEL**  
254

PACKING COPY



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Low Pressure Core Spray (LPCS) System

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
LPCS(1)-4 LPCS-28 LPCS-28	WPPSS * Pacific Scientific Pacific Scientific	LPCS(1)-4-P1 3891 10615	N/A N/A N/A	N/A PSA-3 PSA-3	1983 1977 1980	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

**7. Description Of Work Performed:** Replaced existing snubber for support LPCS-28. The replacement work was performed as follows:

- 1) Removed existing PSA-3 snubber, Serial No 3891.
- 2) Installed replacement PSA-3 snubber, Serial No 10615.
- 3) Torqued the fasteners to the required torque value.
- 4) Performed operability test on the replacement snubber. Operability test acceptable.
- 5) Performed VT-3 visual examination on the installed replacement snubber. VT-3 visual examination results acceptable.

**NOTES -**

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The replacement PSA-3 snubber, Serial No 10615 is certified to comply with ASME Section III, Code Class NF(1), 1974 Edition with Winter 1976 Addenda requirements.
- 3) The existing ASME Code Stamped piping system in which the replacement snubber, Serial No 10615 was installed is Low Pressure Core Spray (LPCS) piping system LPCS(1)-4-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached NF-1 Code Data Report for the replacement snubber, Serial No 10615.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 7/9/01 Date 7/9/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/18/01 to 7/11/01 and state 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.

[Signature] Commissions 74862/7486 N.E.I.  
 Inspector's Signature National Board, State, and Endorsements

Date 7/11/01

FORM NF-1 NPT CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS\*  
As Required by the Provisions of the ASME Code Rules, Section III, Division 1

1. Manufactured by Pacific Scientific 1346 S. State College Blvd. Anaheim, Ca. 92803 WOT No. 010017828 01  
(Name and address of NPT Certificate Holder)

Manufacturer for ITT Grinnell Corp. 621 Dana Street N.E. Warren, Ohio 44481  
(Name and address of purchaser or owner)

3. Location of Installation Unknown LPCS-28, S/N 10615 E-WT-D53

4. Identification

(a) Component Support I.D. No.	(b) Canadian Registration No.	(c) Applicable Drawings with Last Rev. & Date	(d) Stress Report or Load Capacity Data Sheet	(e) Type of Component Support	(f) Class	(g) Net'l Board No.	(h) Year Built
(1) <u>10511-10628</u>	<u>None</u>	<u>1801106-05-H</u>	<u>DR-1350-Rev. B</u>	<u>Linear</u>	<u>I</u>	<u>None</u>	<u>1980</u>
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. Remarks:

CERTIFICATE OF COMPLIANCE

I certify that the statements made in this report are correct and that these components supports conform to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Division 1, Edition '74, Addenda Winter '76  
Code Case No. 1644-5 (Date)

Date 25 January 1980 Signed Pacific Scientific  
(NPT Certificate Holder)

Our ASME Certificate of Authorization No. 1198 to use the Component Supports  
(NPT)

Symbol expires Aug. 4, 1981  
(Date)

CERTIFICATION OF DESIGN

Design Information on File at: Pacific Scientific

Stress Report or Load Capacity Data Sheets on File at:

Pacific Scientific

Filed Per NA 3256

Design Specifications Certified by (1) Leo E. Ay PE State California

Reg. No. 13533

Stress Analysis Report or Load Capacity Data Sheets Certified by (1) Leo E. Ay

PE State California Reg. No. 13533

\* name only, signature not required.

\* Supplemental sheets in form of lists, sketches or drawings may be used provided: (1) size is 8 1/2 in., (2) information in items 1, 2, 4c, 4g on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

## CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of New York Province of New York and employed by HSBISI Co. of Hartford, CT

have inspected the component supports described in this Data Report on 7/25 19 80 and state that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date 7/25/80

Signed William May Commissions N.Y. Comm #2770 / Ohio Comm  
(Nat'l Bd., State, Prov., and No.)

## CERTIFICATION OF FIELD 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 \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_

\_\_\_\_\_ have compared the statements in this Data Report with the described component supports and state that the parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me and that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date \_\_\_\_\_

Signed \_\_\_\_\_ Commissions \_\_\_\_\_  
(Nat'l Bd., State, Prov., and No.)

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Residual Heat Removal (RHR) System

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-4A1 RHR-SA-32(E) RHR-SA-32(E)	WPPSS * Pacific Scientific Pacific Scientific	RHR(1)-4A1-P1 13031 7102	N/A N/A N/A	N/A PSA-10 PSA-10	1983 1982 1980	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

**7. Description Of Work Performed:** Replaced existing snubber for support RHR-SA-32 (East). The replacement work was performed as follows:

- 1) Removed existing PSA-10 snubber, Serial No 13031.
- 2) Installed replacement PSA-10 snubber, Serial No 7102.
- 3) Torqued the fasteners to the required torque value.
- 4) Performed operability test on the replacement snubber. Operability test acceptable.
- 5) Performed VT-3 visual examination on the installed replacement snubber. VT-3 visual examination results acceptable.

### NOTES -

- 1) E=East snubber
- 2) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 3) The replacement PSA-10 snubber, Serial No 7102 is certified to comply with ASME Section III, Code Class NF(1), 1977 Edition with Winter 1977 Addenda requirements.
- 4) The existing ASME Code Stamped piping system in which the replacement snubber, Serial No 7102 was installed is Residual Heat Removal piping system RHR(1)-4A1-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached NF-1 Code Data Report for the replacement snubber, Serial No 7102.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 7/9/01 Date 7/9/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/18/01 to 7/11/01 and state 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.

A. M. [Signature] Commissions 74862/7486 NE IV  
 Inspector's Signature National Board, State, and Endorsements

Date 7/11/01

FORM NF-1 NPT CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS  
As Required by the Provisions of the ASME Code Rules, Section III, Division 1

WOT No. 01007828 01

#10

E-WZ-210

CA. 92803

1. Manufactured by Pacific Scientific 1346 S. State College Blvd. Anaheim,  
(Name and address of NPT Certificate Holder)

2. Manufacturer for ITT Grinnell Corp. 621 Dana Street N.E. Warren, Ohio 44481  
(Name and address of purchaser or owner)

3. Location of Installation Unknown

4. Identification RHR-SA-32(E) S/N 7102

(a) Component Support I. D. No.	(b) Canadian Registration No.	(c) Applicable Drawings with Last Rev. & Date	(d) Stress Report or Load Capa- city Data Sheet	(e) Type of Component Support	(f) Class	(g) Nat'l Board No.	(h) Year Built
(1) 7082-7137	None	1801103-07-H	DR-1352-Rev. B	Linear	I	None	1980
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. Remarks:

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that these components supports conform to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Division 1, Edition 1977, Addenda Winter '77.

Code Case No. 1644-7  
Date 22 April 1980 Signed Pacific Scientific by Bill Jenkins  
(NPT Certificate Holder) (Date)

Our ASME Certificate of Authorization No. 1198 to use the Component Supports  
(NPT)

Symbol expires Aug. 4, 1981  
(Date)

CERTIFICATION OF DESIGN

Design Information on File at Pacific Scientific

Stress Report or Load Capacity Data Sheets on File at:  
Pacific Scientific

Filed Per NA 3256

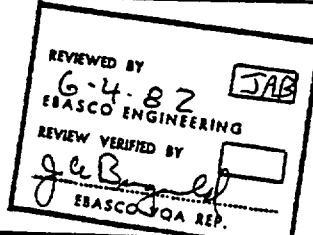
Design Specifications Certified by (1) Leo E. Ay PE State California

Reg. No. 13533

Stress Analysis Report or Load Capacity Data Sheets Certified by (1) Leo E. Ay

PE State California Reg. No. 13533

\* List name only, signature not required.



\* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2 in., (2) information in items 1, 2, 4c, 4g on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

## CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of California and employed by HSB&T Co. of Hartford, CT

have inspected the component supports described in this Data Report on 4/23/80 and state that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date 4/23/80

Signed William Meyer Commissions Ca. # 1494  
(Nat'l Bd., State, Prov., and No.)

## CERTIFICATION OF FIELD 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 \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_

have compared the statements in this Data Report with the described component supports and state that the parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me and that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date \_\_\_\_\_

Signed \_\_\_\_\_ Commissions \_\_\_\_\_  
(Nat'l Bd., State, Prov., and No.)

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Reactor Building Closed Cooling (RCC) System

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda, Code Case: None

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCC(36)-1 RCC-150 RCC-150	WPPSS * Pacific Scientific Pacific Scientific	RCC(36)-1-P1 104 17480	N/A N/A N/A	N/A PSA-1/2 PSA-1/2	1983 1976 1983	----- Replaced Replacement	Yes, Code Class 3 Yes, Code Class 1 Yes, Code Class 1

**7. Description Of Work Performed:** Replaced existing snubber for support RCC-150. The replacement work was performed as follows:

- 1) Removed existing PSA-1/2 snubber, Serial No 104.
- 2) Installed replacement PSA-1/2 snubber, Serial No 17480.
- 3) Torqued the fasteners to the required torque value.
- 4) Performed operability test on the replacement snubber. Operability test acceptable.

### NOTES -

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 3) The replacement PSA-1/2 snubber, Serial No 17480 is certified to comply with ASME Section III, Code Class NF(1), 1977 Edition with Winter 1978 Addenda requirements. ASME Section III, Code Class NF(1) snubber for ASME Section III, Code Class NF(3) application.
- 3) The existing ASME Code Stamped piping system in which the replacement snubber, Serial No 17480 was installed is Reactor Building Closed Cooling (RCC) piping system RCC(36)-1-P1. This piping system is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached NF-1 Code Data Report for the replacement snubber, Serial No 17480.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 7/9/01 Date 7/9/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/18/01 to 7/11/01 and state 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.

[Signature] Commissions 74866/7486 NF-1  
 Inspector's Signature National Board, State, and Endorsements

Date 7/11/01

FORM NF-1 NPT CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS\*  
As Required by the Provisions of the ASME Code Rules, Section III, Division 1

WOT No. 01007828 #1/2  
E-WY-582

Kin-Tech Division

1. Manufactured by Pacific Scientific 1346 S. State College Blvd. Anaheim, Ca. 92803  
(Name and address of NPT Certificate Holder)

2. Manufacturer for ITT Grinnell Corporation 621 Dana Street N.E. Warren, Ohio 44481  
(Name and address of purchaser or owner)

3. Location of Installation Unknown RCC-150 SIN 17480

4. Identification

(a) Component Support I.D. No.	(b) Canadian Registration No.	(c) Applicable Drawings with Last Rev. & Date	(d) Stress Report or Load Capa- city Data Sheet	(e) Type of Component Support	(f) Class	(g) Nat'l Board No.	(h) Year Built
(1) 17388 ✓	None	1801104-07-J	DRI413 Rev. 0	Linear	1	None	1983
(2) thru							
(3) 17517 ✓							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. Remarks: Inspection Test Reports, CMTR's and Certificate of Conformance reviewed and meet ASME SEC III 1974 Edition, Summer '76 Addenda and Code case 1644-6.

CERTIFICATE OF COMPLIANCE

certify that the statements made in this report are correct and that these components supports conform to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Division 1, Edition 1977, Addenda Winter '78

Code Case No. 1644-7

Date 2-4-83 Signed Pacific Scientific by Bonnie G. Nava  
(NPT Certificate Holder) (Date)

Our ASME Certificate of Authorization No. 1198 to use the "NPT"  
(NPT)

Symbol expires Aug. 4, 1984  
(Date)

CERTIFICATION OF DESIGN

Design Information on File at Pacific Scientific

Stress Report or Load Capacity Data Sheets on File at:

Pacific Scientific

Filed Per NCA 3256

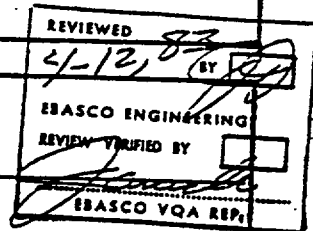
Design Specifications Certified by (1) Leo E. Ay PE State California

Reg. No. 13533

Stress Analysis Report or Load Capacity Data Sheets Certified by (1) Leo E. Ay

PE State California Reg. No. 13533

(1) List name only, signature not required.



ITT GRINNELL CORP.  
Warren Quality Assurance

FEB 22 1983

REVIEWED BY [Signature]

Additional sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2 in., (2) information in items 1, 2, 3 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of sheet.

FORM NF-1 (Back)

CERTIFICATE OF SHOP 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 OHIO and employed by HSB&T Co. of Hartford, CT

have inspected the component supports described in this Data Report on FEB. 04 1983

is \_\_\_\_\_ and state that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date FEB. 04 1983

Signed *Raymond Regal* Commissions CA-1513/Ohio Commission  
(Nat'l Bd., State, Prov., and No.)

CERTIFICATION OF FIELD INSPECTION

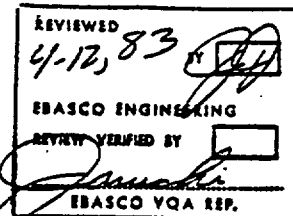
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_

have compared the statements in this Data Report with the described component supports and state that the parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me and that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date \_\_\_\_\_

Signed \_\_\_\_\_ Commissions \_\_\_\_\_  
(Nat'l Bd., State, Prov., and No.)





**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

1. **Owner:** Energy Northwest  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station  
**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) **Work Performed By:** Energy Northwest  
 (b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest  
 (c) **Type Code Symbol Stamp:** Not Applicable  
 (d) **Certificate Of Authorization No.:** Not Applicable  
 (e) **Expiration Date:** Not Applicable
4. **Identification Of System:** Reactor Building Closed Cooling (RCC) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda, Code Case: None  
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 07/09/01

Sheet: 1 Of 1

Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCC(36)-1 RCC-161 RCC-161	WPPSS * Pacific Scientific Pacific Scientific	RCC(36)-1-P1 2581 16455	N/A N/A N/A	N/A PSA-1/2 PSA-1/2	1983 1978 1982	----- Replaced Replacement	Yes, Code Class 3 Yes, Code Class 1 Yes, Code Class 1

**7. Description Of Work Performed:** Replaced existing snubber for support RCC-161. The replacement work was performed as follows:

- 1) Removed existing PSA-1/2 snubber, Serial No 2581.
- 2) Installed replacement PSA-1/2 snubber, Serial No 16455.
- 3) Torqued the fasteners to the required torque value.
- 4) Performed operability test on the replacement snubber. Operability test acceptable.

**NOTES -**

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 3) The replacement PSA-1/2 snubber, Serial No 17480 is certified to comply with ASME Section III, Code Class NF(1), 1977 Edition with Winter 1978 Addenda requirements. ASME Section III, Code Class NF(1) snubber for ASME Section III, Code Class NF(3) application.
- 3) The existing ASME Code Stamped piping system in which the replacement snubber, Serial No 17480 was installed is Reactor Building Closed Cooling (RCC) piping system RCC(36)-1-P1. This piping system is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached NF-1 Code Data Report for the replacement snubber, Serial No 16455.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 7/9/01 Date 7/9/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/18/01 to 7/11/01 and state 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.

M. M. D. E. Commissions 7486 W / 7486 N.E.I.  
 Inspector's Signature National Board, State, and Endorsements

Date 7/11/01

FORM NF-1 NPT CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS

As Required by the Provisions of the ASME Code Rules, Section III, Division 1 E-WZ-430

~~Min. Tech. Division~~

1. Manufactured by Pacific Scientific 1346 S. State College Blvd. Anaheim, Ca. 92803

(Name and address of NPT Certificate Holder)

Manufacturer for ITT Grinnell Corporation 621 Dana Street N.E. Warren, Ohio 44481

(Name and address of purchaser or owner)

3. Location of Installation Unknown

RCC-(b1, S)N 16455

4. Identification

(a) Component Support I.D. No.	(b) Canadian Registration No.	(c) Applicable Drawings with Last Rev. & Date	(d) Stress Report or Load Capacity Data Sheet	(e) Type of Component Support	(f) Class	(g) Next Board No.	(h) Year Built
(1) <u>16428</u>	<u>None</u>	<u>1801104-07-J</u>	<u>DR 1413 Rev.0</u>	<u>Linear</u>	<u>1</u>	<u>None</u>	<u>1982</u>
(2) <u>thru</u>							
(3) <u>16469</u>							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. Remarks: Inspection Test Reports, CMTR's and Certificate of Conformance reviewed and meet ASME Sec III 1974 Edition, Summer '76 Addenda and Code Case 1644-6.

CERTIFICATE OF COMPLIANCE

certify that the statements made in this report are correct and that these components supports conform to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Division 1, Edition 1977, Addenda Winter '78

Code Case No. 1644-7

Date 8/25/82 Signed Pacific Scientific

(NPT Certificate Holder)

by Annika A. Nava (Date)

Our ASME Certificate of Authorization No. 1198

to use the

"NPT"

(NPT)

Symbol expires Aug. 4, 1984

(Date)

CERTIFICATION OF DESIGN

Design Information on File at Pacific Scientific

Stress Report or Load Capacity Data Sheets on File at:

Pacific Scientific

Filed Per NCA 3256

Design Specifications Certified by (1) Leo E. Ay PE State California

Reg. No. 13533

Stress Analysis Report or Load Capacity Data Sheets Certified by (1) Leo E. Ay

PE State California Reg. No. 13533

st name only, signature not required.

REVIEWED BY  
11-8-82  
EBASCO ENGINEERING  
REVIEW VERIFIED BY  
JAB  
EBASCO QA REP.

\*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2 in., (2) information in items 1, 2, 4c, 4g on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

### CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State  
Province of OHIO and employed by HSB&T Co. of Hartford, CT

have inspected the component supports described in this Data Report on AUG 25 1982

to \_\_\_\_\_ and state that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date AUG 25 1982

Signed *Eugene M. Regala* Commissions GA-1513/OHIO COMMISSION  
(Nat'l Bd., State, Prov., and No.)

### CERTIFICATION OF FIELD 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 \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_

\_\_\_\_\_ have compared the statements in this Data Report with the described component supports and state that the parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me and that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the component supports described in this Data 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.

Date \_\_\_\_\_

Signed \_\_\_\_\_ Commissions \_\_\_\_\_  
(Nat'l Bd., State, Prov., and No.)

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993522. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993523. (a) **Work Performed By:** Energy Northwest(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest(c) **Type Code Symbol Stamp:** Not Applicable(d) **Certificate Of Authorization No.:** Not Applicable(e) **Expiration Date:** Not Applicable4. **Identification Of System:** Reactor Building Closed Cooling (RCC) System5. (a) **Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda, Code Case: None(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCC(36)-1 RCC-964(N) RCC-964(N)	WPPSS * Pacific Scientific Pacific Scientific	RCC(36)-1-P1 20012 19884	N/A N/A N/A	N/A PSA-1/4 PSA-1/4	1983 1981 1982	----- Replaced Replacement	Yes, Code Class 3 Yes, Code Class 1 No, Code Class **

7. **Description Of Work Performed:** Replaced existing snubber for support RCC-964 (North). The replacement work was performed as follows:

- 1) Removed existing PSA-1/4 snubber, Serial No 20012.
- 2) Installed replacement PSA-1/4 snubber, Serial No 19884.
- 3) Installed replacement adapter assembly.
- 4) Torqued the fasteners to the required torque value.
- 5) Performed operability test on the replacement snubber. Operability test acceptable.

**NOTES-**

- 1) N= North snubber
- 2) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 3) \*\* ASME Section III, Code Class NF snubber.
- 4) The replacement PSA-1/4 snubber, Serial No 19884 is certified to comply with ASME Section III, Code Class NF, 1974 Edition with Winter 1976 Addenda requirements.
- 5) The existing ASME Code Stamped piping system in which the replacement snubber, Serial No 19884 was installed is Reactor Building Closed Cooling (RCC) piping system RCC(36)-1-P1. This piping system is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: None

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Date 7/9/01

Date 7/9/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/18/01 to 7/11/01 and state 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.

[Signature]  
 Inspector's Signature

Commissions 7486 W / 7486 N F I S  
 National Board, State, and Endorsements

Date 7/11/01



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Date:** 04/27/01

**Sheet:** 1 Of 1

**Unit:** Not Applicable

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Control Rod Drive (CRD)

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Notes

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A9550	N/A	N/A	1994	-----	Yes, Code Class 1
CT&F	General Electric	A9550	N/A	N/A	1994	Replacement	Yes, Code Class 1
Piston Tube	General Electric	B0787	N/A	N/A	1992	Replacement	Yes, Code Class 1

**7. Description Of Work Performed:** Assembled Control Rod Drive (CRD) assembly Serial No A9550. The Control Rod Drive (CRD) assembly Serial No A9550 was assembled from all new parts in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9550.
- 2) Installed new Piston Tube assembly Serial No B0787.
- 3) Installed new Ring Flange Serial No A5647.
- 4) Performed VT-1 visual examination on six (6) new Ring Flange Cap Screws Heat Code No NBD, Heat No 500564. VT-1 visual examination results acceptable. VT-1 visual examination Report No 2CRD-006.
- 5) Installed six (6) new VT-1 visually examined Ring Flange Cap Screws Heat Code No NBD, Heat No 500564.
- 6) Performed VT-1 visual examination on new Piston Tube Nut Serial No 6150. VT-1 visual examination results acceptable. VT-1 visual examination Report No 2CRD-005.
- 7) Installed new VT-1 visually examined Piston Tube Nut Serial No 6150.
- 8) Assembled parts and materials for Control Rod Drive (CRD) assembly Serial No A9550.

**NOTES -**

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9550 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9550.
- 2) Piston Tube assembly Serial No B0787 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No B0787.
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9550.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached N-2 Code Data Reports for the following:

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9550.
- 2) Piston Tube assembly Serial No B0787.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 4/27/01 Date 4/27/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 4-20-01 to 5/8/01 and state 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.

J. M. Foy Commissions 7486, 7486, I, W, IS  
 Inspector's Signature National Board, State, and Endorsements

Date 5/8/01

NOT NO. 01025424

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
As required by the Provision of the ASME Code Rules, Section III, Div. I

- Buildip Sup3*  
4/27/01
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : A9550 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75, Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).

Date: 04/08/94

Signed GE - NEBG - NF & CM - QA  
( NPT Certificate Holder )

By [Signature]  
( SC QA Representative )

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPTN - 1151

**Certification of Design for Appurtenance**

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1  
Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1  
Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

**Certification of Shop Inspection**

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 3/2, 1994 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

4/8, 1994 [Signature]  
Date Inspector's Signature

NC 1231, Ohio, WC 3686 PA  
National Board, State, Province And No.

\*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

(07/90)

# **FORM N-2 ( back )**

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
( Kind & Spec. No. ) ( Min. of Range Specified )

5. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_  
 Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
 Location ( Top Bottom, Ends ) Thickness Crown Radius Knuckle Radius Elliptical Ratio Concial Apex Angle Hemispherical Radius Flat Diameter Side to Press. ( conv. or conc. )  
 (a) \_\_\_\_\_  
 (b) \_\_\_\_\_  
 If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
( Material, Spec. No., T.S. Size Number ) ( Describe or attach sketch )

7. Jacket Closure: \_\_\_\_\_  
( Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch )

8. Design pressure <sup>2</sup> \_\_\_\_\_ 1250 \_\_\_\_\_ psi at \_\_\_\_\_ 575 \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F  
 Drop Weight \_\_\_\_\_  
 Charpy Impact \_\_\_\_\_ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
( Kind & Spec. No. ) ( Subject to pressure ) ( Welded, Bolted )  
 Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_

10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_  
( Str. or U )

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
( Kind & Spec. No. ) ( Min. of Range Specified )

12. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_  
 Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
 Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Concial Apex Angle Hemispherical Radius Flat Diameter Side to Press. ( conv. or conc. )  
 (a) Top, bottom, ends \_\_\_\_\_  
 (b) Channel \_\_\_\_\_  
 If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
( Describe or attach sketch )

14. Design pressure <sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F  
 Drop Weight \_\_\_\_\_  
 Charpy Impact \_\_\_\_\_ ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

16. Nozzles: Purpose ( Inlet, Outlet, Drain ) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
( Yes or No ) ( Number ) ( Number ) ( Describe ) ( Where & How )

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

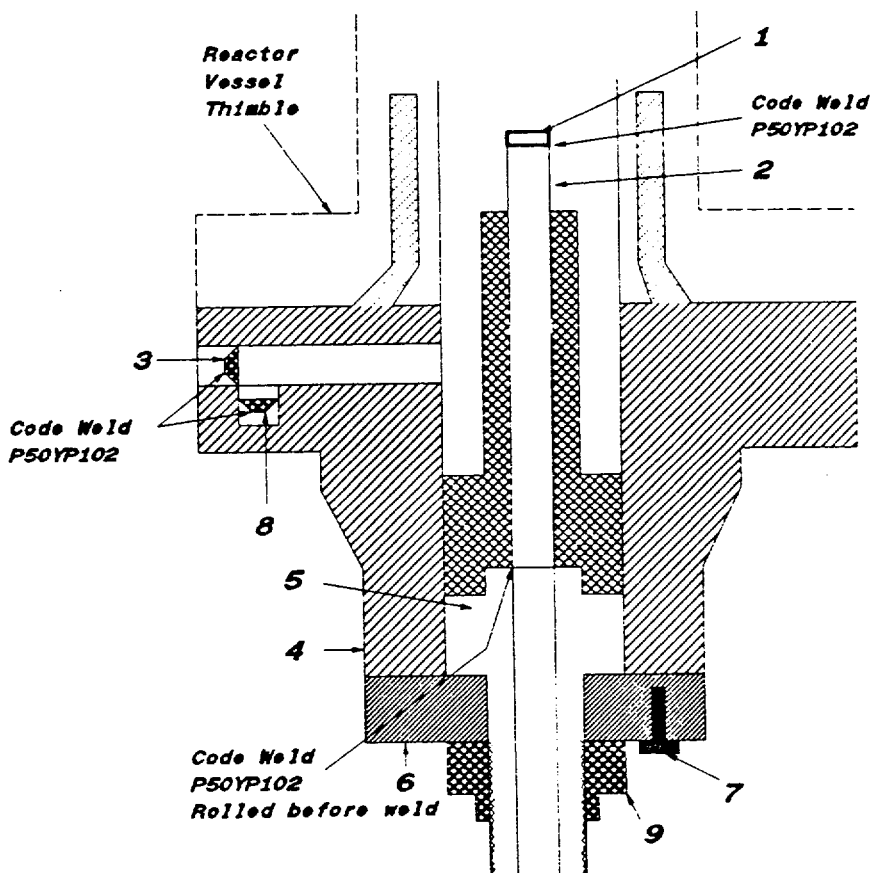
W07 NO. 01025424 01

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
 As required by the Provision of the ASME Code Rules, Section III, Div. I

- 4/27/51
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
 ( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
 ( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : A9550 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75, Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
 ( Brief description of service for which component was designed )

Sheet 2 of 2

1. Cap 166B9274P001  
SA182 - TP316  
3/8" thick x 1 1/16" OD
2. Indicator Tube 167B4908P001  
SA312 - TP316  
3/4" sch 40 - seamless pipe  
0.113" wall thickness  
1.065" max. dia.
3. Plug 159A1176P001  
SA182 - F304  
1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)  
SA182 - F304  
3.37" thick x 9 5/8" OD
5. Head 129B3539P005  
SA182 - F304  
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002  
SA182 - F304  
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002  
SA193 - B6  
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001  
SA182 - F304  
0.38" thick x 1.307" dia.
9. Nut 114B5460P001  
XM - 19 SA479  
1.30" thick x 2.62" dia.



W07 NO. 0102 5424 01

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
As required by the Provision of the ASME Code Rules, Section III, Div. I

- Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : B0787 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Piston Tube Assembly
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).

Date: 12/22/92 Signed GE - NEBG - NF & CM - QA By [Signature]  
( NPT Certificate Holder ) ( SC QA Representative )

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151

**Certification of Design for Appurtenance**

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1  
Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1  
Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

**Certification of Shop Inspection**

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 12/16, 1992, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

12/22, 1992 [Signature]  
Date Inspector's Signature

NC 1231, Ohio, WC 3686 PA  
National Board, State, Province And No.

Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

# **FORM N-2 (back)**

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_  
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
 Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
 Location (Top Bottom, Ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)  
 (a) \_\_\_\_\_  
 (b) \_\_\_\_\_  
 If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: \_\_\_\_\_  
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

8. Design pressure <sup>2</sup> \_\_\_\_\_ 1250 \_\_\_\_\_ psi at \_\_\_\_\_ 575 \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F  
 Drop Weight \_\_\_\_\_  
 Charpy Impact \_\_\_\_\_ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)  
 Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_

10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_  
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_  
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
 Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
 Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)  
 (a) Top, bottom, ends \_\_\_\_\_  
 (b) Channel \_\_\_\_\_  
 If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Describe or attach sketch)

14. Design pressure <sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F  
 Drop Weight \_\_\_\_\_  
 Charpy Impact \_\_\_\_\_ ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

17. Inspection Openings: Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*  
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )

(b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )

2. Identification - Certificate Holder's S/N of Part : B0787 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

*The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.*

*Serial # and tester stamp is an alternate method of marking.*

Sheet 2 of 2

1. Cap 166B9274P001  
SA182 - F304  
3/8" thick x 1 1/16" OD

2. Indicator Tube 166B9313P001  
SA312 - TP316  
3/4" sch 40 - seamless pipe  
0.113" wall thickness  
1.065" max. dia.

3. Plug 159A1176P001  
SA182 - F304  
1/4" thick x 0.812" OD

4. Flange 919D610P001 (719E474)  
SA182 - F304  
3.37" thick x 9 5/8" OD

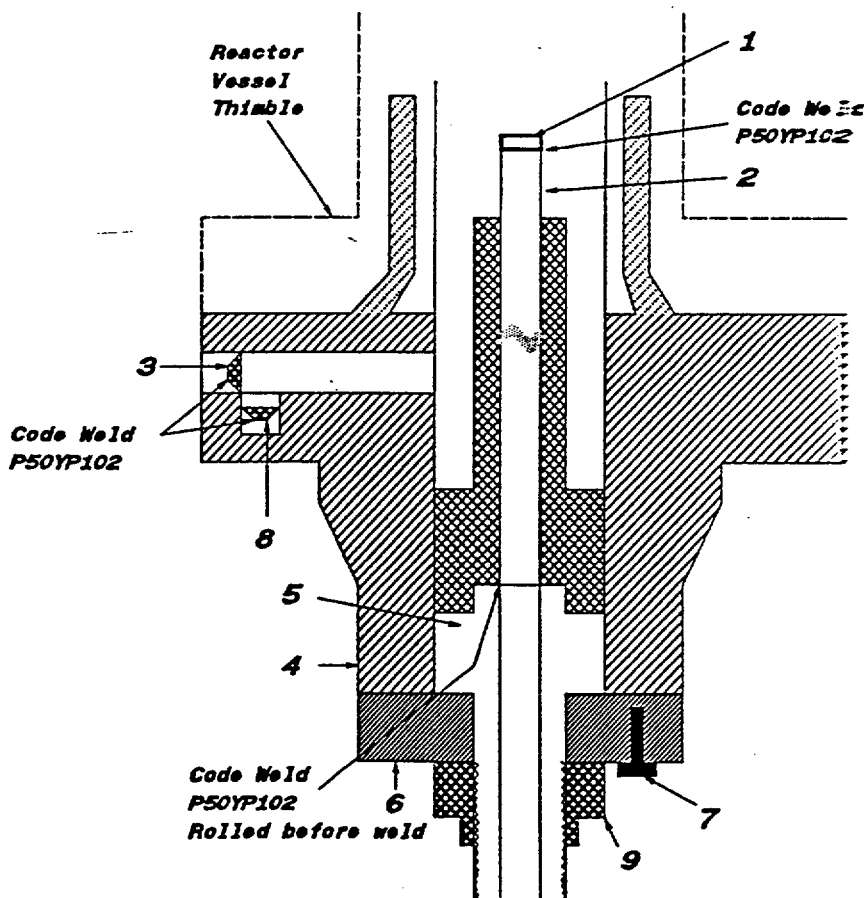
5. Base 137C5311P001  
SA182 - F304  
7/8" thick x 2.875" dia.

6. Ring Flange 114B5122P002, P003  
137C8151P001, P002  
SA182 - F304  
1" thick x 5.0" OD x 1.75" ID

7. Cap Screw 117C4516P002  
SA193 - B6  
6 ea. 1/2" dia. on 4 1/8" bolt circle

8. Plug 175A7961P001  
SA182 - F304  
0.38" thick x 1.307" dia.

9. Nut 137C5934P001  
XM - 19 SA479  
1.30" thick x 2.62" dia.



# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Date:** 04/27/01

**Sheet:** 1 Of 1

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Unit:** Not Applicable

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Control Rod Drive (CRD)

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Notes

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda,  
Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A9478	N/A	N/A	1994	-----	Yes, Code Class 1
CT&F	General Electric	A9478	N/A	N/A	1994	Replacement	Yes, Code Class 1
Piston Tube	General Electric	3147	N/A	N/A	1985	Replacement	Yes, Code Class 1

**7. Description Of Work Performed:** Assembled Control Rod Drive (CRD) assembly Serial No A9478. The Control Rod Drive (CRD) assembly Serial No A9478 was assembled from all new parts in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9478.
- 2) Installed new Piston Tube assembly Serial No 3147.
- 3) Installed new Ring Flange Serial No 4163.
- 4) Performed VT-1 visual examination on six (6) new Ring Flange Cap Screws Heat Code No NBD, Heat No 500564. VT-1 visual examination results acceptable. VT-1 visual examination Report No 2CRD-006.
- 5) Installed six (6) new VT-1 visually examined Ring Flange Cap Screws Heat Code No NBD, Heat No 500564.
- 6) Performed VT-1 visual examination on new Piston Tube Nut Serial No 6152. VT-1 visual examination results acceptable. VT-1 visual examination Report No 2CRD-005.
- 7) Installed new VT-1 visually examined Piston Tube Nut Serial No 6152.
- 8) Assembled parts and materials for Control Rod Drive (CRD) assembly Serial No A9478.

### NOTES -

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9478 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9478.
- 2) Piston Tube assembly Serial No 3147 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 3147.
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9478.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached N-2 Code Data Reports for the following:

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9478.
- 2) Piston Tube assembly Serial No 3147.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Date 4/27/01

Date 4/27/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 4/20/01 to 4/28/01 and state 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.

[Signature]  
 Inspector's Signature

Commissions 7486.04/7486 N.I.I.  
 National Board, State, and Endorsements

Date 5/8/01

W01 No. 01025424 02

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
As required by the Provision of the ASME Code Rules, Section III, Div. I

- 4/27/01
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : A9478 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).

Date: 04/08/94

Signed GE - NEBG - NF & CM - QA  
( NPT Certificate Holder )

By [Signature]  
( SC QA Representative )

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151

### Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1  
Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1  
Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

### Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 3/2, 1994, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

4/8, 1994 [Signature]  
Date Inspector's Signature

NC 1231, Ohio, WC 3686 PA  
National Board, State, Province And No.

\*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

# **FORM N-2 ( back )**

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)
5. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_  
Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_
6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location (Top Bottom, Ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)  
(a) \_\_\_\_\_  
(b) \_\_\_\_\_  
If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)
7. Jacket Closure: \_\_\_\_\_  
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)
8. Design pressure <sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F  
Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)  
Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_
10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_  
(Str or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)
12. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_  
Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_
13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)  
(a) Top, bottom, ends \_\_\_\_\_  
(b) Channel \_\_\_\_\_  
If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Describe or attach sketch)
14. Design pressure <sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F  
Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*

As required by the Provision of the ASME Code Rules, Section III, Div. I

WOT NO. 01025404 --

*Buildip Swift*

4/21/01

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401

( Name and Address of NPT Certificate Holder )

(b) Manufactured for : WNP 2 Richland, Washington 99352

( Name and Address of N Certificate Holder for completed nuclear component )

2. Identification - Certificate Holder's S/N of Part : A9478 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: Cylinder Tube & Flange

(c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75, Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

( Brief description of service for which component was designed )

Sheet 2 of 2

1. Cap 166B9274P001  
SA182 - TP316  
3/8" thick x 1 1/16" OD

2. Indicator Tube 167B4908P001  
SA312 - TP316  
3/4" sch 40 - seamless pipe  
0.113" wall thickness  
1.065" max. dia.

3. Plug 159A1176P001  
SA182 - F304  
1/4" thick x 0.812" OD

4. Flange 919D610P001 ( 719E474 )  
SA182 - F304  
3.37" thick x 9 5/8" OD

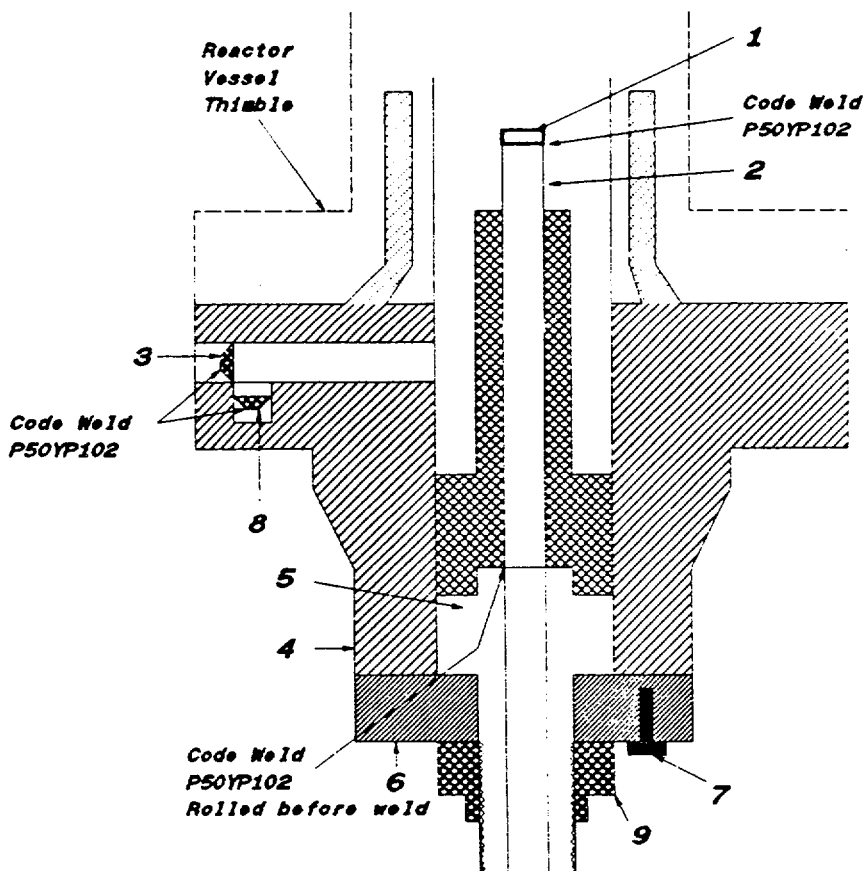
5. Head 129B3539P005  
SA182 - F304  
7/8" thick x 2.875" dia.

6. Ring Flange 114B5122P002  
SA182 - F304  
1" thick x 5.0" OD x 1.75" ID

7. Cap Screw 117C4516P002  
SA193 - B6  
6 ea. 1/2" dia. on 4 1/8" bolt circle

8. Plug 175A7961P001  
SA182 - F304  
0.38" thick x 1.307" dia.

9. Nut 114B5460P001  
XM - 19 SA479  
1.30" thick x 2.62" dia.



W07 NO.01025424 02

1. (a) Manufactured by General Electric Co., Castle Hayne Rd., Wilmington, N.C.  
(Name and address of NPT Certificate Holder)
- (b) Manufactured for ~~STOCK~~ WNP-2  
(Name and address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holder's Serial No. of Part 3147 Nat'l Bd. No. NA
- (a) Constructed According to Drawing No. 798D228G010 Drawing Prepared by D. L. Peterson
- (b) Description of Part Inspected Piston Tube Assembly
- (c) Applicable ASME Code: Section III, Edition 1971, Addenda date S'73, Case No. — Class 1
3. Remarks: Standard part for use with reactor.  
(Brief description of service for which component was designed)  
Hydrostatically tested at 1825 psi.

\* Number of Sheets - 2

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.  
(The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date 4-17 19 85 Signed GE-NEPD-WMD By J. Ettrude  
(NPT Certificate Holder)  
Certificate of Authorization Expires June 16, 1987 Certificate of Authorization No. NPT N-1151

### CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.

Stress analysis report on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.

Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

### CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 4/17 19 85 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data 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.

Date 4/19 19 85

Inspector's Signature

Commissions

N.C. 723,PAWC1766, OHIO

National Board, State, Province and No.

\* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-3 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

Items 4-8 Incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in. (Kind & Spec. No.) (Min. of Range Specified) SIN 3147
5. Seams: Long \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ % Lulaib
- Girth \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_
6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_
- | Location<br>(Top, bottom, ends) | Thickness | Crown<br>Radius | Knuckle<br>Radius | Elliptical<br>Ratio | Conical<br>Apex Angle | Hemispherical<br>Radius | Flat<br>Diameter | Side to Press.<br>(Conv. or Conc.) |
|---------------------------------|-----------|-----------------|-------------------|---------------------|-----------------------|-------------------------|------------------|------------------------------------|
| (a)                             |           |                 |                   |                     |                       |                         |                  |                                    |
| (b)                             |           |                 |                   |                     |                       |                         |                  |                                    |
- If removable, bolts used \_\_\_\_\_ (Material, Spec. No., T.S., Size, Number) Other fastening \_\_\_\_\_ (Describe or attach sketch)
7. Jacket Closure: \_\_\_\_\_ (Describe as edge and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)
8. Design pressure<sup>2</sup> 1250 psi at 575 °F Drop Weight \_\_\_\_\_ Charpy Impact \_\_\_\_\_ ft.-lb. at temp. of \_\_\_\_\_ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_ (Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
- Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_
10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_ (Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in. (Kind & Spec. No.) (Min. of Range Specified)
12. Seams: Long \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %
- Girth \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_
13. Heads (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_
- | Location              | Thickness | Crown<br>Radius | Knuckle<br>Radius | Elliptical<br>Ratio | Conical<br>Apex Angle | Hemispherical<br>Radius | Flat<br>Diameter | Side to Press.<br>(Conv. or Conc.) |
|-----------------------|-----------|-----------------|-------------------|---------------------|-----------------------|-------------------------|------------------|------------------------------------|
| (a) Top, bottom, ends |           |                 |                   |                     |                       |                         |                  |                                    |
| (b) Channel           |           |                 |                   |                     |                       |                         |                  |                                    |
- If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_ (Describe or attach sketch)
14. Design pressure<sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ °F Drop Weight \_\_\_\_\_ Charpy Impact \_\_\_\_\_ ft.-lb. at temp. of \_\_\_\_\_ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
16. Nozzles:
- | Purpose (Inlet, Outlet, Drain) | Number | Dia. or Size | Type | Material | Thickness | Reinforcement Material | How Attached |
|--------------------------------|--------|--------------|------|----------|-----------|------------------------|--------------|
|                                |        |              |      |          |           |                        |              |
|                                |        |              |      |          |           |                        |              |
|                                |        |              |      |          |           |                        |              |
17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
- Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
- Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
18. Supports: Skirt \_\_\_\_\_ (Yes or No) Lugs \_\_\_\_\_ (Number) Legs \_\_\_\_\_ (Number) Other \_\_\_\_\_ (Describe) Attached \_\_\_\_\_ (Where & How)

<sup>1</sup> If Postweld Heat-Treated.

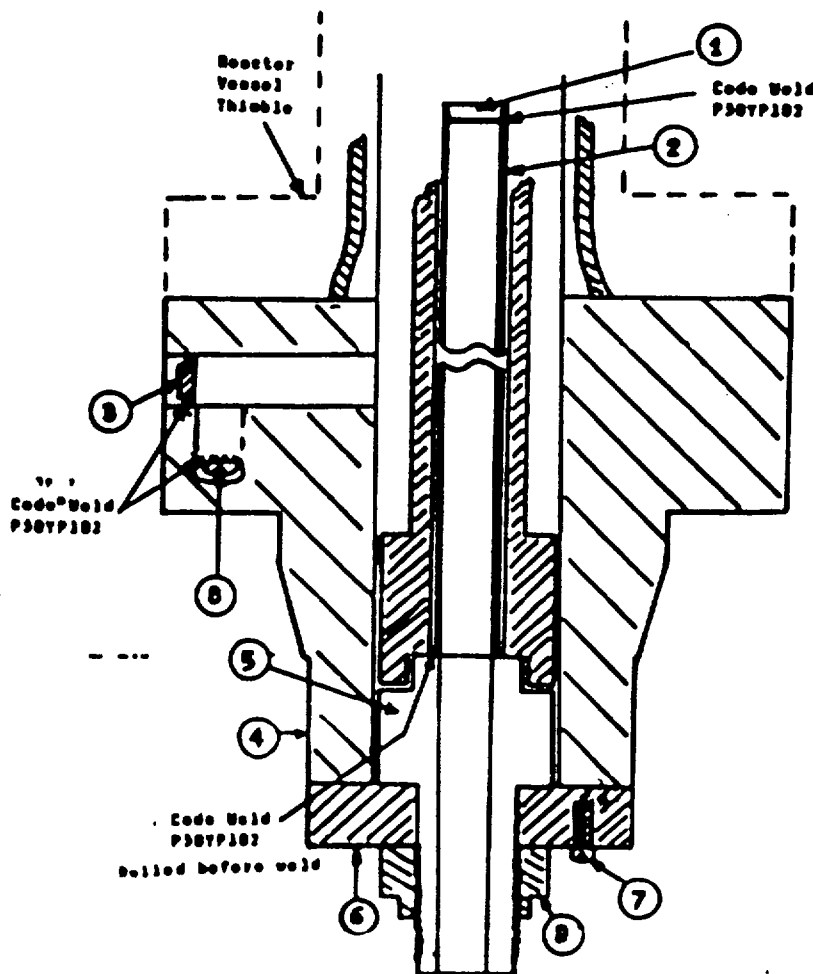
<sup>2</sup> List other internal or external pressure with coincident temperature when applicable.

W07 K10 010234  
**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
 As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by: GE Company, 2117 Castle Hayne Rd., Wilmington, N.C. 28401  
 (Name and Address of NPT Certificate Holder) 4/22/01
- (b) Manufactured for: WEP-2, RICHLAND, WA. 99352  
 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holders's S/N of Part: 3147 Mat'l Bd. N. N/A
- (a) Constructed According to Drawing No: 798D228G010 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Piston Tube Assembly
- (c) Applicable ASME Code: Section III, Edition 1971, Addenda Date S'73, Case No.        Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
 (Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 167A2343P1  
SA182-F304  
3/8 thick x 1 1/16 OD
2. Indicator Tube 104B1336P3  
SA312-TP316  
3/4 sch 40-seamless pipe  
0.113 wall thickness  
1.065 max. dia.
3. Plug 159A1176P1  
SA182-F304  
1/4 thick x 0.812 OD
4. Flange 919D610P1 (719E474)  
SA182-F304  
3.37 thick x 9 5/8 OD
5. Head 129B3539P3,P5  
SA182-F304  
7/8 thick x 2.875 Dia.
6. Ring Flange 114B5122P2  
SA182-F304  
1" thick x 5.0 OD x 1.75 ID
7. Cap Screw 117C4516P2  
SA193-B6  
6 ea. 1/2 dia. on 4 1/8 bolt circle
8. Plug 175A7961P1  
SA182-F304  
0.38 thick x 1.307 dia.



# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. **Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. **Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. **(a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

4. **Identification Of System:** Control Rod Drive (CRD)

5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Notes

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A9482	N/A	N/A	1994	-----	Yes, Code Class 1
CT&F	General Electric	A9482	N/A	N/A	1994	Replacement	Yes, Code Class 1
Piston Tube	General Electric	2927	N/A	N/A	1985	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Assembled Control Rod Drive (CRD) assembly Serial No A9482. The Control Rod Drive (CRD) assembly Serial No A9482 was assembled from all new parts in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9482.
- 2) Installed new Piston Tube assembly Serial No 2927.
- 3) Installed new Ring Flange Serial No A5355.
- 4) Performed VT-1 visual examination on six (6) new Ring Flange Cap Screws Heat Code No NBD, Heat No 500564. VT-1 visual examination results acceptable. VT-1 visual examination Report No 2CRD-006.
- 5) Installed six (6) new VT-1 visually examined Ring Flange Cap Screws Heat Code No NBD, Heat No 500564.
- 6) Performed VT-1 visual examination on new Piston Tube Nut Serial No 6051. VT-1 visual examination results acceptable. VT-1 visual examination Report No 2CRD-005.
- 7) Installed new VT-1 visually examined Piston Tube Nut Serial No 6051.
- 8) Assembled parts and materials for Control Rod Drive (CRD) assembly Serial No A9482.

### NOTES -

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9482 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9482.
- 2) Piston Tube assembly Serial No 2927 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 2927.
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9482.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached N-2 Code Data Reports for the following:

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9482.
- 2) Piston Tube assembly Serial No 2927.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 4/27/01 Date 4/27/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 4/20/01 to 5/8/01 and state 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.

[Signature] Commissions 7486.00/7486 N.I.I.  
 Inspector's Signature National Board, State, and Endorsements

Date 5/8/01

W07 No. 01025424 03

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
As required by the Provision of the ASME Code Rules, Section III, Div. 1

- 4/27/01  
Kuldip Singh
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : A9482 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75, Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).

Date: 04/08/94

Signed GE - NEBG - NF & CM - QA  
( NPT Certificate Holder )

By [Signature]  
( SC OR Representative )

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151

**Certification of Design for Appurtenance**

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

**Certification of Shop Inspection**

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 3/2, 1994 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

4/8  
Date

[Signature]  
Inspector's Signature

NC 1231, Ohio, WC 3686 PA  
National Board, State, Province And No.

\*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

(07/90)

# FORM N-2 ( back )

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)
5. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_  
Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_
6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location (Top Bottom, Ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)  
(a) \_\_\_\_\_  
(b) \_\_\_\_\_  
If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)
7. Jacket Closure: \_\_\_\_\_  
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)
8. Design pressure <sup>2</sup> \_\_\_\_\_ 1250 \_\_\_\_\_ psi at \_\_\_\_\_ 575 \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F  
Drop Weight \_\_\_\_\_ ft-lb  
Charpy Impact \_\_\_\_\_

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)  
Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_
10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_  
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)
12. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_  
Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_
13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)  
(a) Top, bottom, ends \_\_\_\_\_  
(b) Channel \_\_\_\_\_  
If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Describe or attach sketch)
14. Design pressure <sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F  
Drop Weight \_\_\_\_\_ ft-lb  
Charpy Impact \_\_\_\_\_

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*  
As required by the Provision of the ASME Code Rules, Section III, Div. I

W07 No. 01025424 03

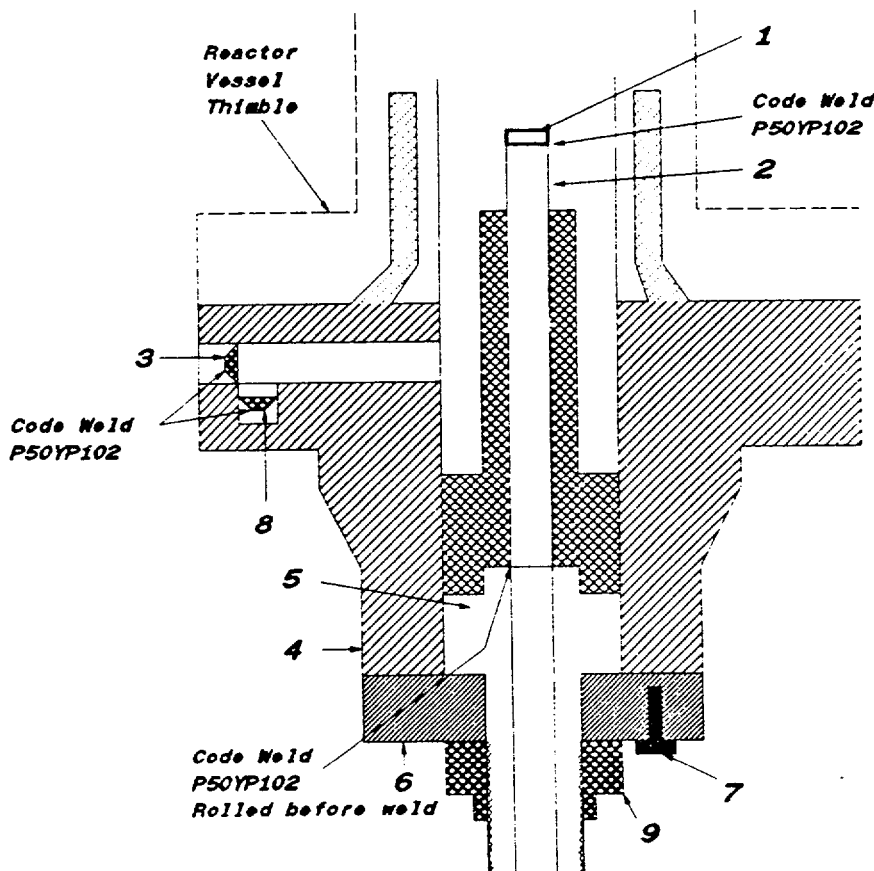
*Substep 3*

4/22/01

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : A9482 Nat'l Bd. No. N/A
  - (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
  - (b) Description of Part Inspected: Cylinder Tube & Flange
  - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 2 of 2

1. Cap 166B9274P001  
SA182 - TP316  
3/8" thick x 1 1/16" OD
2. Indicator Tube 167B4908P001  
SA312 - TP316  
3/4" sch 40 - seamless pipe  
0.113" wall thickness  
1.065" max. dia.
3. Plug 159A1176P001  
SA182 - F304  
1/4" thick x 0.812" OD
4. Flange 919D610P001 ( 719E474 )  
SA182 - F304  
3.37" thick x 9 5/8" OD
5. Head 129B3539P005  
SA182 - F304  
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002  
SA182 - F304  
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002  
SA193 - B6  
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001  
SA182 - F304  
0.38" thick x 1.307" dia.
9. Nut 114B5460P001  
XM - 19 SA479  
1.30" thick x 2.62" dia.



## FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*

As required by the Provision of the ASME Code Rules, Section III, Div. I

WOT NO. 01025424 03

1. (a) Manufactured by General Electric Co., Castle Hayne Rd., Wilmington, N.C.  
(Name and address of NPT Certificate Holder)
- (b) Manufactured for ~~STOCK~~ WNP-2  
(Name and address of N Certificate Holder for completed nuclear component) Chadwick Suppl  
4/22/01
2. Identification-Certificate Holder's Serial No. of Part 2927 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No. 798D228G010 Drawing Prepared by D. L. Peterson
- (b) Description of Part Inspected Piston Tube Assembly
- (c) Applicable ASME Codes: Section III, Edition 1971, Addenda date S'73, Case No. — Class 1
3. Remarks: Standard part for use with reactor.  
(Brief description of service for which component was designed)  
Hydrostatically tested at 1825 psi.

\* Number of Sheets - 2

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.  
(The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date 2/18/ 19 85 Signed GE-NEPD-WMD By J. E. Strudennick  
(NPT Certificate Holder)

Certificate of Authorization Expires June 16, 1987 Certificate of Authorization No. NPT N-1151

## CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.

Stress analysis report on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.

Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

## CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 2/21 1985, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data 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.

Date 2/21 19 85 E. J. Sherrill  
Inspector's Signature

Commissions N.C. 723, PA. WC1766, OHIO  
National Board, State, Province and No.

\* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

Items 4-8 Incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)
5. Seams: Long \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency SIN 2927 %  
Girth \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses Keldin
6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.  
(Top, bottom, ends) (Conv. or Conc.)  
(a) \_\_\_\_\_  
(b) \_\_\_\_\_  
If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)
7. Jacket Closure: \_\_\_\_\_  
(Describe as edges and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)
8. Design pressure<sup>2</sup> 1250 psi at 575 °F Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft.-l  
at temp. of \_\_\_\_\_ °

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)  
Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_
10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_  
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)
12. Seams: Long \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
Girth \_\_\_\_\_ H.T.<sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_
13. Heads (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.  
(Top, bottom, ends) (Conv. or Conc.)  
(a) \_\_\_\_\_  
(b) Channel \_\_\_\_\_  
If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Describe or attach sketch)
14. Design pressure<sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ °F Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft.-l  
at temp. of \_\_\_\_\_ °

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
16. Nozzles:
- | Purpose (Inlet, Outlet, Drain) | Number | Dia. or Size | Type  | Material | Thickness | Reinforcement Material | How Attached |
|--------------------------------|--------|--------------|-------|----------|-----------|------------------------|--------------|
| _____                          | _____  | _____        | _____ | _____    | _____     | _____                  | _____        |
| _____                          | _____  | _____        | _____ | _____    | _____     | _____                  | _____        |
| _____                          | _____  | _____        | _____ | _____    | _____     | _____                  | _____        |
17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
(Yes or No) (Number) (Number) (Describe) (Where & How)

<sup>1</sup> If Postweld Heat-Treated.

<sup>2</sup> List other internal or external pressure with coincident temperature when applicable.

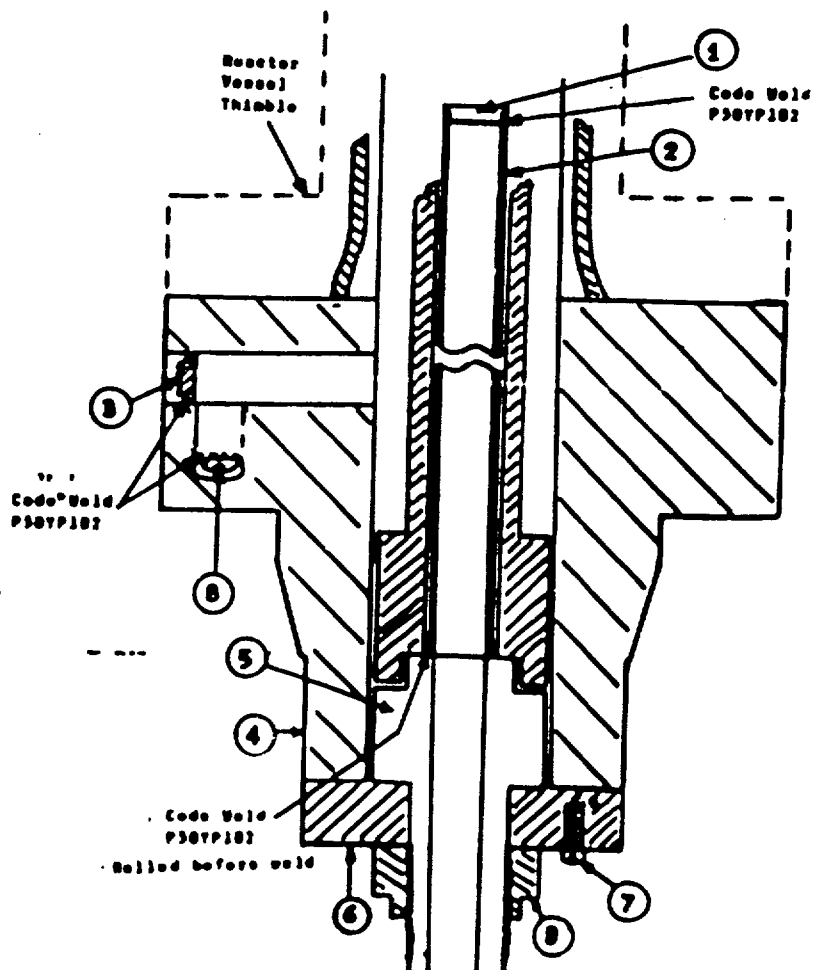
WOT No. 0102-542403

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES**  
**As required by the Provision of the ASME Code Rules, Section III, Div. I**

1. Manufactured & Certified by: GE Company, 2117 Castle Hayne Rd., Wilmington, N.C. 28401  
 (Name and Address of NPT Certificate Holder) 4/21/01
- (b) Manufactured for: WNP-2, RICHLAND, WA. 99352  
 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holders's S/N of Part: 2927 Nat'l Bd. N. N/A
- (a) Constructed According to Drawing No: 798D228G010 Dwg. Prepared by D. L. Peterac
- (b) Description of Part Inspected: Piston Tube Assembly
- (C) Applicable ASME Code: Section III, Edition 1971, Addenda Date S'73, Case No.        Class
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
 (Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 167A2343P1  
SA182-F304  
3/8 thick x 1 1/16 OD
2. Indicator Tube 104B1336P3  
SA312-TP316  
3/4 sch 40-seamless pipe  
0.113 wall thickness  
1.065 max. dia.
3. Plug 159A1176P1  
SA182-F304  
1/4 thick x 0.812 OD
4. Flange 919D610P1 (719E474)  
SA182-F304  
3.37 thick x 9 5/8 OD
5. Head 129B3539P3,P5  
SA182-F304  
7/8 thick x 2.875 Dia.
6. Ring Flange 114B5122P2  
SA182-F304  
1" thick x 5.0 OD x 1.75 ID
7. Cap Screw 117C4516P2  
SA193-B6  
6 ea. 1/2 dia. on 4 1/8 bolt circle
8. Plug 175A7961P1  
SA182-F304  
0.38 thick x 1.307 dia.





**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required By The Provisions Of The ASME Code Section XI**

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**Date:** 04/27/01

**Sheet:** 1 Of 1

**Unit:** Not Applicable

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Control Rod Drive (CRD)

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Notes

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A9531	N/A	N/A	1994	-----	Yes, Code Class 1
CT&F	General Electric	A9531	N/A	N/A	1994	Replacement	Yes, Code Class 1
Piston Tube	General Electric	B0792	N/A	N/A	1992	Replacement	Yes, Code Class 1

**7. Description Of Work Performed:** Assembled Control Rod Drive (CRD) assembly Serial No A9531. The Control Rod Drive (CRD) assembly Serial No A9531 was assembled from all new parts in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9531.
- 2) Installed new Piston Tube assembly Serial No B0792.
- 3) Installed new Ring Flange Serial No A5430.
- 4) Performed VT-1 visual examination on six (6) new Ring Flange Cap Screws Heat Code No AT, Heat No 531057. VT-1 visual examination results acceptable. VT-1 visual examination Report No 4-01-2-1.
- 5) Installed six (6) new VT-1 visually examined Ring Flange Cap Screws Heat Code No AT, Heat No 531057.
- 6) Performed VT-1 visual examination on new Piston Tube Nut Serial No 5964. VT-1 visual examination results acceptable. VT-1 visual examination Report No 2CRD-005.
- 7) Installed new VT-1 visually examined Piston Tube Nut Serial No 5964.
- 8) Assembled parts and materials for Control Rod Drive (CRD) assembly Serial No A9531.

**NOTES -**

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9531 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9531.
- 2) Piston Tube assembly Serial No B0792 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No B0792.
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9531.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached N-2 Code Data Reports for the following:

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9531.
- 2) Piston Tube assembly Serial No B0792.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  
 Date 4/27/01 Date 4/27/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 4-20-01 to 5-8-01 and state 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.

J. M. F... Commissions 7486W/7486 T N IS  
 Inspector's Signature National Board, State, and Endorsements  
 Date 5-8-01

WOT NO. 01025424 04

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
As required by the Provision of the ASME Code Rules, Section III, Div. I

- 4/27/01
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : A9531 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).

Date: 03/15/94

Signed GE - NEBG - NF & CM - QA  
( NPT Certificate Holder )

By [Signature]  
( SC QA Representative )

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPTN - 1151

### Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1  
Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1  
Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

### Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 2/17, 1994 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

3/15, 1994  
Date

[Signature]  
Inspector's Signature

NC 1231, Ohio, WC 3686 PA  
National Board, State, Province And No.

\*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

(07/90)

# FORM N-2 ( back )

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)
5. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_
6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location ( Top Bottom, Ends ) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. ( conv. or conc. )  
(a) \_\_\_\_\_  
(b) \_\_\_\_\_  
If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)
7. Jacket Closure: \_\_\_\_\_  
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)
- Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft-lb
8. Design pressure <sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
(Kind & Spec. No.) (Subject to pressure) (Welded, Sored )  
Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_
10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_  
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)
12. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_
13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. ( conv. or conc. )  
(a) Top, bottom, ends \_\_\_\_\_  
(b) Channel \_\_\_\_\_  
If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Describe or attach sketch)
- Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft-lb
14. Design pressure <sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - # Postweld Heat-Treated.

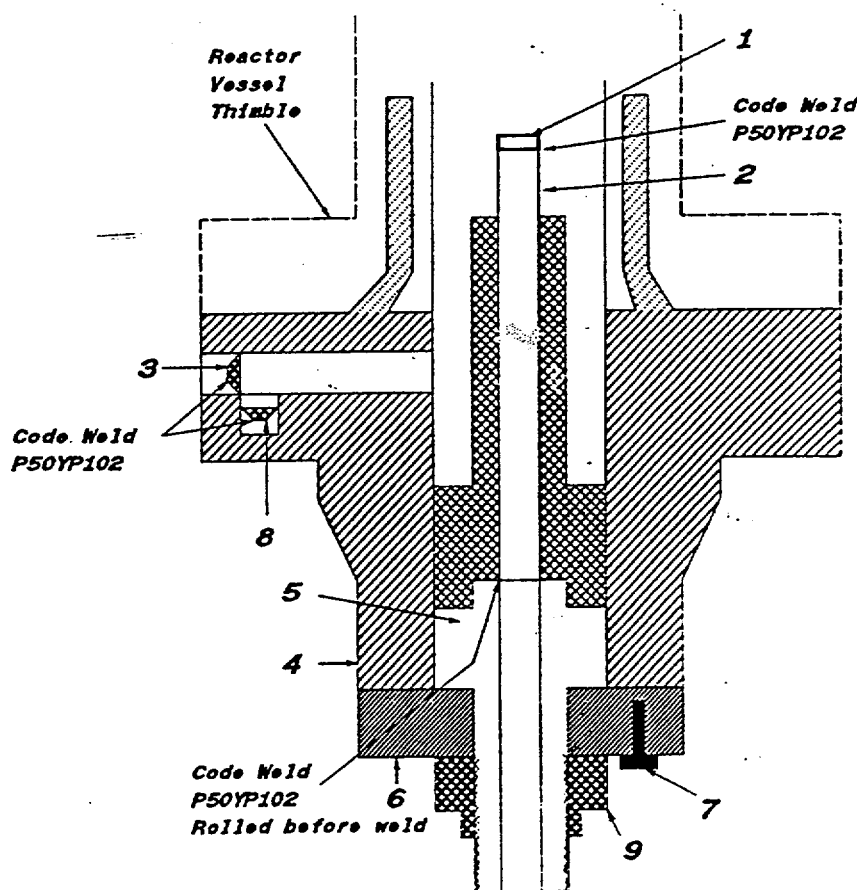
2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*  
As required by the Provision of the ASME-Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing ( GE NF & CM )  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : A9531 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 2 of 2

1. Cap 166B9274P001  
SA182 - TP316  
3/8" thick x 1 1/16" OD
2. Indicator Tube 167B4908P001  
SA312 - TP316  
3/4" sch 40 - seamless pipe  
0.113" wall thickness  
1.065" max. dia.
3. Plug 159A1176P001  
SA182 - F304  
1/4" thick x 0.812" OD
4. Flange 919D610P001 ( 719E474 )  
SA182 - F304  
3.37" thick x 9 5/8" OD
5. Head 129B3539P005  
SA182 - F304  
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002  
SA182 - F304  
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002  
SA193 - B6  
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001  
SA182 - F304  
0.38" thick x 1.307" dia.
9. Nut 114B5460P001  
XM - 19 SA479  
1.30" thick x 2.62" dia.



W07 NO. 01025424 04

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
As required by the Provision of the ASME Code Rules, Section III, Div. I

- 4127101
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : B0792 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Piston Tube Assembly
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).

Date: 12/22/92

Signed GE - NEBG - NF & CM - QA  
( NPT Certificate Holder )

By [Signature]  
SC QA Representative )

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151

### Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

### Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 12/16, 1992 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

Date

12/22, 1992

[Signature]  
Inspector's Signature

NC 1231, Ohio, WC 3686 PA  
National Board, State, Province And No.

\*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

# FORM N-2 ( back )

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft.  
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_  
Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_

	Location ( Top Bottom, Ends )	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. ( conv. or conc. )
(a)	_____	_____	_____	_____	_____	_____	_____	_____	_____
(b)	_____	_____	_____	_____	_____	_____	_____	_____	_____

If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: \_\_\_\_\_  
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

8. Design pressure <sup>2</sup> \_\_\_\_\_ 1250 \_\_\_\_\_ psi at \_\_\_\_\_ 575 \_\_\_\_\_ ° F Drop Weight Charpy Impact \_\_\_\_\_ ft-lb  
at temp of \_\_\_\_\_ ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolt)

Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_

10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_  
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft.  
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_  
Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_

	Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. ( conv. or conc. )
(a) Top, bottom, ends	_____	_____	_____	_____	_____	_____	_____	_____	_____
(b) Channel	_____	_____	_____	_____	_____	_____	_____	_____	_____

If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Describe or attach sketch)

14. Design pressure <sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ ° F Drop Weight Charpy Impact \_\_\_\_\_ ft-lb  
at temp of \_\_\_\_\_ ° F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

16. Nozzles: Purpose (Inlet, Outlet, Drain) \_\_\_\_\_ Number \_\_\_\_\_ Dia. or Size \_\_\_\_\_ Type \_\_\_\_\_ Material \_\_\_\_\_ Thickness \_\_\_\_\_ Reinforcement Material \_\_\_\_\_ How Attached \_\_\_\_\_

17. Inspection Openings: Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

WOT NO. 0102 5424 04

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401

( Name and Address of NPT Certificate Holder )

(b) Manufactured for : WNP 2 Richland, Washington 99352

( Name and Address of N Certificate Holder for completed nuclear component )

2. Identification - Certificate Holder's S/N of Part : B0792 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75, Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

( Brief description of service for which component was designed )

*The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.*

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

1. Cap 166B9274P001  
SA182 - F304  
3/8" thick x 1 1/16" OD

2. Indicator Tube 166B9313P001  
SA312 - TP316  
3/4" sch 40 - seamless pipe  
0.113" wall thickness  
1.065" max. dia.

3. Plug 159A1176P001  
SA182 - F304  
1/4" thick x 0.812" OD

4. Flange 919D610P001 (719E474)  
SA182 - F304  
3.37" thick x 9 5/8" OD

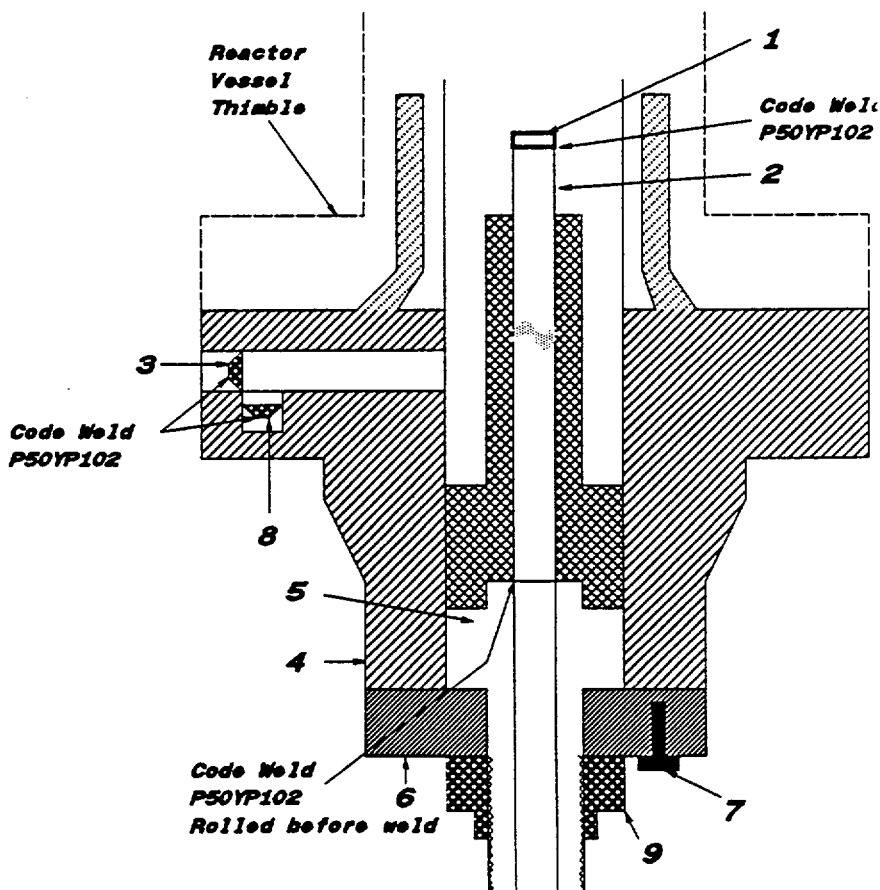
5. Base 137C5311P001  
SA182 - F304  
7/8" thick x 2.875" dia.

6. Ring Flange 114B5122P002, P003  
137C8151P001, P002  
SA182 - F304  
1" thick x 5.0" OD x 1.75" ID

7. Cap Screw 117C4516P002  
SA193 - B6  
6 ea. 1/2" dia. on 4 1/8" bolt circle

8. Plug 175A7961P001  
SA182 - F304  
0.38" thick x 1.307" dia.

9. Nut 137C5934P001  
XM - 19 SA479  
1.30" thick x 2.62" dia.



# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Control Rod Drive (CRD)

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Notes

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A9552	N/A	N/A	1994	-----	Yes, Code Class 1
CT&F	General Electric	A9552	N/A	N/A	1994	Replacement	Yes, Code Class 1
Piston Tube	General Electric	B0758	N/A	N/A	1992	Replacement	Yes, Code Class 1

**7. Description Of Work Performed:** Assembled Control Rod Drive (CRD) assembly Serial No A9552. The Control Rod Drive (CRD) assembly Serial No A9552 was assembled from all new parts in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9552.
- 2) Installed new Piston Tube assembly Serial No B0758.
- 3) Installed new Ring Flange Serial No A5420.
- 4) Performed VT-1 visual examination on six (6) new Ring Flange Cap Screws Heat Code No AT, Heat No 531057. VT-1 visual examination results acceptable. VT-1 visual examination Report No 4-01-2-1.
- 5) Installed six (6) new VT-1 visually examined Ring Flange Cap Screws Heat Code No AT, Heat No 531057.
- 6) Performed VT-1 visual examination on new Piston Tube Nut Serial No 6146. VT-1 visual examination results acceptable. VT-1 visual examination Report No 2CRD-005.
- 7) Installed new VT-1 visually examined Piston Tube Nut Serial No 6146.
- 8) Assembled parts and materials for Control Rod Drive (CRD) assembly Serial No A9552.

### NOTES -

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9552 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9552.
- 2) Piston Tube assembly Serial No B0758 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No B0758.
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9552.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None  
 Test Pressure: Psig Test Temperature: °F  
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached N-2 Code Data Reports for the following:

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9552.
- 2) Piston Tube assembly Serial No B0758.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh  
 Kuldip Singh - Program Lead Engineer (PLE)

Date 4/27/01

Date 4/27/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 4/20/01 to 5/18/01 and state 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.

J. M. Fawcett  
 Inspector's Signature

Commissions 7486W/74186 I N I S  
 National Board, State, and Endorsements

Date 5/18/01

W07 NC 01025424 05

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
As required by the Provision of the ASME Code Rules, Section III, Div. I

Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )

(b) Manufactured for : WNF 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )

2. Identification - Certificate Holder's S/N of Part : A9552 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).

Date: 03/15/94

Signed GE - NEBG - NF & CM - QA  
( NPT Certificate Holder )

By [Signature]  
( SC QA Representative )

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151

### Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1  
Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1  
Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

### Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 3/15, 1994 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

3/15, 1994  
Date

James P. Evers  
Inspector's Signature

NC 1231, Ohio, WC 3686 PA  
National Board, State, Province And No.

\*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

(07/90)

# FORM N-2 ( back )

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location (Top Bottom, Ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)  
(a) \_\_\_\_\_  
(b) \_\_\_\_\_  
If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: \_\_\_\_\_  
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)  
Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft-lb

8. Design pressure <sup>2</sup> \_\_\_\_\_ 1250 \_\_\_\_\_ psi at \_\_\_\_\_ 575 \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)  
Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_

10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_  
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)  
(a) Top, bottom, ends \_\_\_\_\_  
(b) Channel \_\_\_\_\_  
If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Describe or attach sketch)  
Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft-lb

14. Design pressure <sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

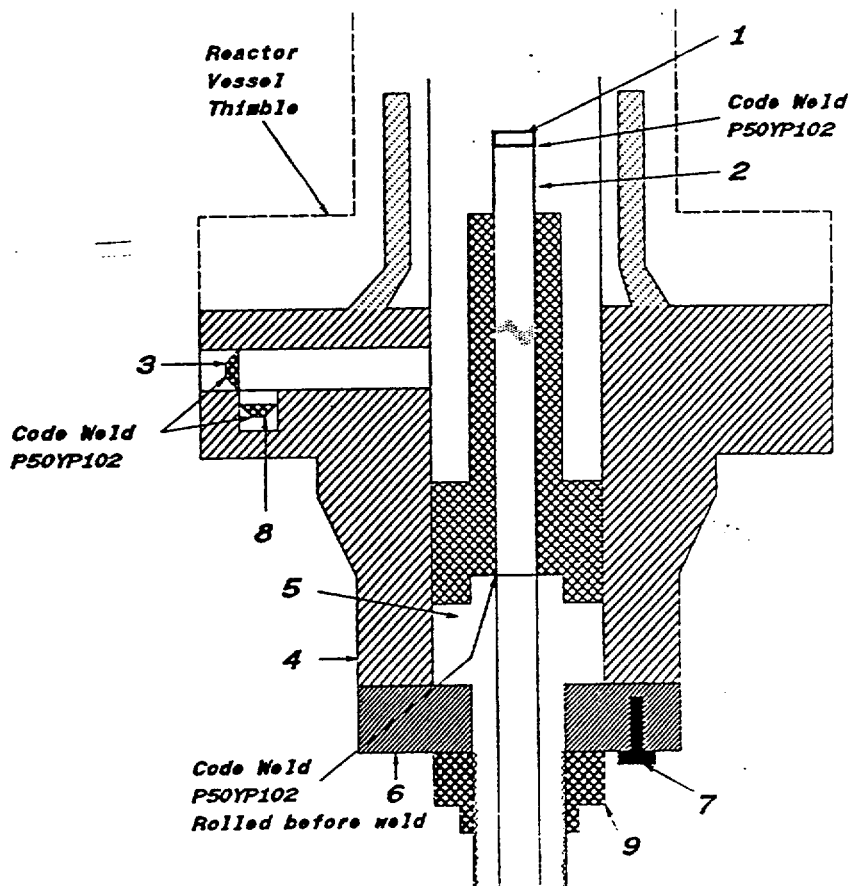
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*  
As required by the Provision of the ASME Code Rules, Section III, Div. I

W07 N0 01025424 05

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder ) *Quail Supl*  
4/27/01
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : A9552 Nat'l Bd. No. N/A
  - (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
  - (b) Description of Part Inspected: Cylinder Tube & Flange
  - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 2 of 2

1. Cap 166B9274P001  
SA182 - TP316  
3/8" thick x 1 1/16" OD
2. Indicator Tube 167B4908P001  
SA312 - TP316  
3/4" sch 40 - seamless pipe  
0.113" wall thickness  
1.065" max. dia.
3. Plug 159A1176P001  
SA182 - F304  
1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)  
SA182 - F304  
3.37" thick x 9 5/8" OD
5. Head 129B3539P005  
SA182 - F304  
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002  
SA182 - F304  
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002  
SA193 - B6  
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001  
SA182 - F304  
0.38" thick x 1.307" dia.
9. Nut 114B5460P001  
XM - 19 SA479  
1.30" thick x 2.62" dia.



W07 NO. 01025424 05

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
As required by the Provision of the ASME Code Rules, Section III, Div. I

- 4/21/01
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : B0758 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Piston Tube Assembly
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).

Date: 12/22/92 Signed GE - NEBG - NF & CM - QA By [Signature]  
( NPT Certificate Holder ) ( SC QA Representative )

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151

**Certification of Design for Appurtenance**

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

**Certification of Shop Inspection**

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 12/16, 1992, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

12/22, 1992  
Date

[Signature]  
Inspector's Signature

NC 1231, Ohio, WC 3686 PA  
National Board, State, Province And No.

\*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

# **FORM N-2 (- back )**

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_  
(Kind & Spec. No.) (Min. of Range Specified)
5. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_  
 Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_
6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
 Location ( Top Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.  
 Bottom, Ends ) Thickness Radius Radius Ratio Apex Angle Radius Diameter ( conv. or conc. )  
 (a) \_\_\_\_\_  
 (b) \_\_\_\_\_  
 If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)
7. Jacket Closure: \_\_\_\_\_  
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)
8. Design pressure <sup>2</sup> \_\_\_\_\_ 1250 \_\_\_\_\_ psi at \_\_\_\_\_ 575 \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F  
 Drop Weight \_\_\_\_\_  
 Charpy Impact \_\_\_\_\_ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)  
 Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_
10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_  
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_  
(Kind & Spec. No.) (Min. of Range Specified)
12. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_  
 Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_
13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
 Location Thickness Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.  
 (a) Top, bottom, ends \_\_\_\_\_ Radius Radius Ratio Apex Angle Radius Diameter ( conv. or conc. )  
 (b) Channel \_\_\_\_\_  
 If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Describe or attach sketch)
14. Design pressure <sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F  
 Drop Weight \_\_\_\_\_  
 Charpy Impact \_\_\_\_\_ ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_
18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*  
As required by the Provision of the ASME Code Rules, Section III, Div. I

WOT NO. 0102 34200

412701

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )

(b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )

2. Identification - Certificate Holder's S/N of Part : B0758 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

1. Cap 166B9274P001  
SA182 - F304  
3/8" thick x 1 1/16" OD

2. Indicator Tube 166B9313P001  
SA312 - TP316  
3/4" sch 40 - seamless pipe  
0.113" wall thickness  
1.065" max. dia.

3. Plug 159A1176P001  
SA182 - F304  
1/4" thick x 0.812" OD

4. Flange 919D610P001 (719E474)  
SA182 - F304  
3.37" thick x 9 5/8" OD

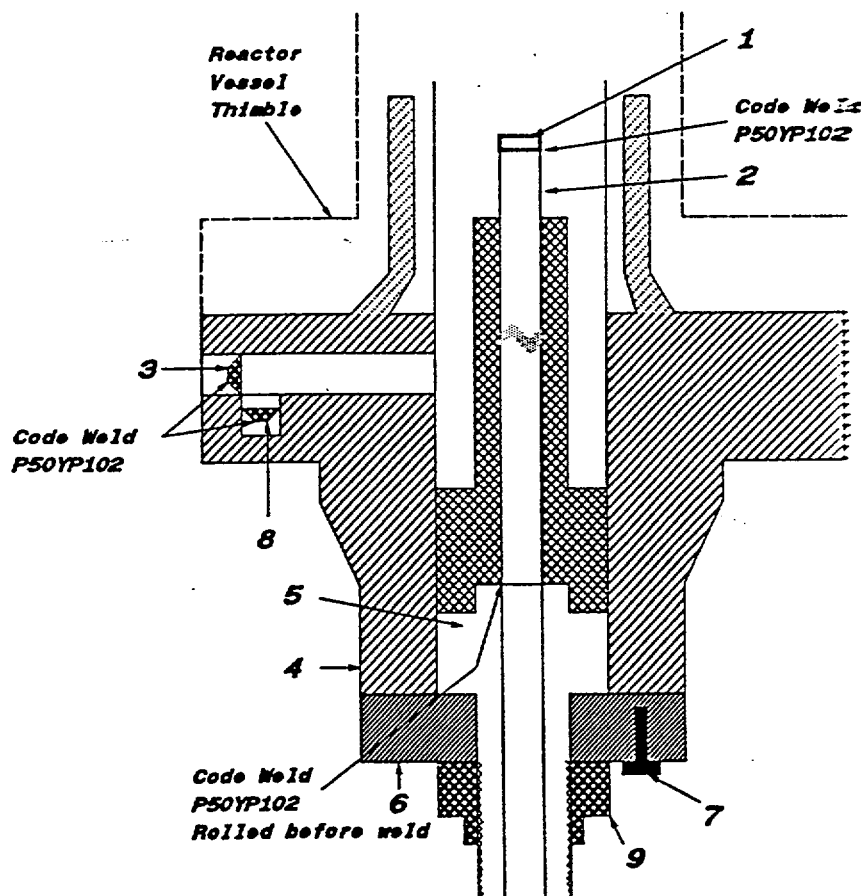
5. Base 137C5311P001  
SA182 - F304  
7/8" thick x 2.875" dia.

6. Ring Flange 114B5122P002, P003  
137C8151P001, P002  
SA182 - F304  
1" thick x 5.0" OD x 1.75" ID

7. Cap Screw 117C4516P002  
SA193 - B6  
6 ea. 1/2" dia. on 4 1/8" bolt circle

8. Plug 175A7961P001  
SA182 - F304  
0.38" thick x 1.307" dia.

9. Nut 137C5934P001  
XM - 19 SA479  
1.30" thick x 2.62" dia.



# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

**1. Owner:** Energy Northwest

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**2. Plant:** Columbia Generating Station

**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

**3. (a) Work Performed By:** Energy Northwest

**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest

**(c) Type Code Symbol Stamp:** Not Applicable

**(d) Certificate Of Authorization No.:** Not Applicable

**(e) Expiration Date:** Not Applicable

**4. Identification Of System:** Control Rod Drive (CRD)

**5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Notes

**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None

**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A9541	N/A	N/A	1994	-----	Yes, Code Class 1
CT&F	General Electric	A9541	N/A	N/A	1994	Replacement	Yes, Code Class 1
Piston Tube	General Electric	B0757	N/A	N/A	1992	Replacement	Yes, Code Class 1

**7. Description Of Work Performed:** Assembled Control Rod Drive (CRD) assembly Serial No A9541. The Control Rod Drive (CRD) assembly Serial No A9541 was assembled from all new parts in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9541.
- 2) Installed new Piston Tube assembly Serial No B0757.
- 3) Installed new Ring Flange Serial No A5665.
- 4) Performed VT-1 visual examination on six (6) new Ring Flange Cap Screws Heat Code No NBD, Heat No 500564. VT-1 visual examination results acceptable. VT-1 visual examination Report No 2CRD-006.
- 5) Installed six (6) new VT-1 visually examined Ring Flange Cap Screws Heat Code No NBD, Heat No 500564.
- 6) Performed VT-1 visual examination on new Piston Tube Nut Serial No 6169. VT-1 visual examination results acceptable. VT-1 visual examination Report No 2CRD-005.
- 7) Installed new VT-1 visually examined Piston Tube Nut Serial No 6169.
- 8) Assembled parts and materials for Control Rod Drive (CRD) assembly Serial No A9541.

### NOTES -

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9541 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9541.
- 2) Piston Tube assembly Serial No B0757 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No B0757.
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9541.

# ENERGY NORTHWEST

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

9. Remarks: See attached N-2 Code Data Reports for the following:

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9541.
- 2) Piston Tube assembly Serial No B0757.

### CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh  
Kuldip Singh - Program Lead Engineer (PLE)

Date

4/27/01

Date

4/27/01

### 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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 4/27/01 to 5/18/01 and state 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.

J. M. Felt  
Inspector's Signature

Commissions 74504, 74186 N.I.I.  
National Board, State, and Endorsements

Date

5/18/01

W07 No. 01025424 06

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
As required by the Provision of the ASME Code Rules, Section III, Div. I

- Dudley Smith  
4/21/01
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : A9541 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).

Date: 04/08/94

Signed GE - NEBG - NF & CM - QA  
( NPT Certificate Holder )

By [Signature]  
( SC QA Representative )

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151

### Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1  
Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1  
Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

### Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 3/2, 1994, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

4/8, 1994  
Date

[Signature]  
Inspector's Signature

NC 1231, Ohio, WC 3686 PA  
National Board, State, Province And No.

\*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

# FORM N-2 ( back )

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long \_\_\_\_\_ H.T. <sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_  
Girth \_\_\_\_\_ H.T. <sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location ( Top Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.  
Bottom, Ends ) Thickness Radius Radius Ratio Apex Angle Radius Diameter ( conv. or conc. )  
(a) \_\_\_\_\_  
(b) \_\_\_\_\_  
If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: \_\_\_\_\_  
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft-lb

8. Design pressure <sup>2</sup> \_\_\_\_\_ 1250 \_\_\_\_\_ psi at \_\_\_\_\_ 575 \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)  
Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_

10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_  
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_ in.  
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long \_\_\_\_\_ H.T. <sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_  
Girth \_\_\_\_\_ H.T. <sup>1</sup> \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
Location Thickness Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.  
(a) Top, bottom, ends \_\_\_\_\_ Radius Radius Ratio Apex Angle Radius Diameter ( conv. or conc. )  
(b) Channel \_\_\_\_\_  
If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Describe or attach sketch)

Drop Weight \_\_\_\_\_  
Charpy Impact \_\_\_\_\_ ft-lb

14. Design pressure <sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

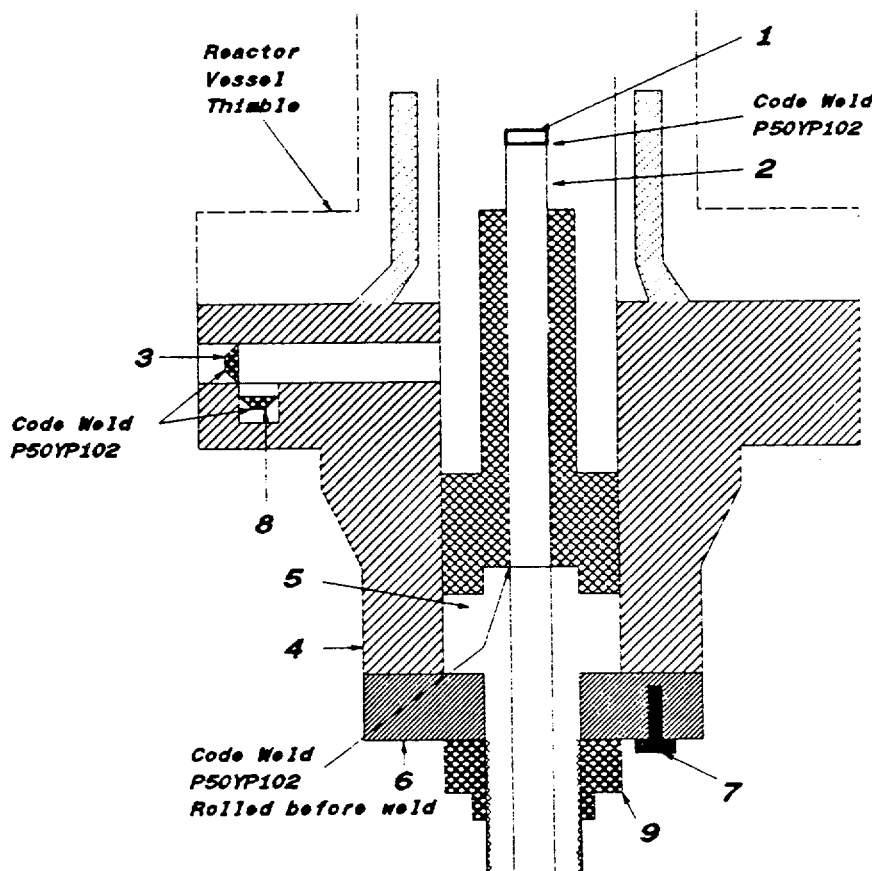
WOT NO. 01025424 06

**FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\***  
As required by the Provision of the ASME Code Rules, Section III, Div. I

- Rudolph Smith*  
4/22/01
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : A9541 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 2 of 2

1. Cap 166B9274P001  
SA182 - TP316  
3/8" thick x 1 1/16" OD
2. Indicator Tube 167B4908P001  
SA312 - TP316  
3/4" sch 40 - seamless pipe  
0.113" wall thickness  
1.065" max. dia.
3. Plug 159A1176P001  
SA182 - F304  
1/4" thick x 0.812" OD
4. Flange 919D610P001 ( 719E474 )  
SA182 - F304  
3.37" thick x 9 5/8" OD
5. Head 129B3539P005  
SA182 - F304  
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002  
SA182 - F304  
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002  
SA193 - B6  
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001  
SA182 - F304  
0.38" thick x 1.307" dia.
9. Nut 114B5460P001  
XM - 19 SA479  
1.30" thick x 2.62" dia.



W07 NO. 0102 5424 06  
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*  
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  
2117 Castle Hayne Road, Wilmington, North Carolina 28401  
( Name and Address of NPT Certificate Holder )
- (b) Manufactured for : WNP 2 Richland, Washington 99352  
( Name and Address of N Certificate Holder for completed nuclear component )
2. Identification - Certificate Holder's S/N of Part : B0757 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Piston Tube Assembly
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  
( Brief description of service for which component was designed )

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).

Date: 12/22/92 Signed GE - NEBG - NF & CM - QA By [Signature]  
( NPT Certificate Holder ) ( SC QA Representative )

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPTN - 1151

### Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

### Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 12/16, 1992, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

12/22, 1992 [Signature] NC 1231, Ohio, WC 3686 PA  
Date Inspector's Signature National Board, State, Province And No.

\*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

# FORM N-2 ( back )

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_  
 (Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
 Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

6. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
 Location ( Top Bottom, Ends ) Thickness Crown Radius Knuckle Radius Elliptical Ratio Concial Apex Angle Hemispherical Radius Flat Diameter Side to Press. ( conv. or conc. )  
 (a) \_\_\_\_\_  
 (b) \_\_\_\_\_  
 If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
 (Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: \_\_\_\_\_  
 (Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

8. Design pressure <sup>2</sup> \_\_\_\_\_ 1250 \_\_\_\_\_ psi at \_\_\_\_\_ 575 \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F  
 Drop Weight \_\_\_\_\_  
 Charpy Impact \_\_\_\_\_ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_  
 (Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)  
 Floating. Material \_\_\_\_\_ Dia. \_\_\_\_\_ Thickness \_\_\_\_\_ in. Attachment \_\_\_\_\_

10. Tubes: Material \_\_\_\_\_ O.D. \_\_\_\_\_ in. Thickness \_\_\_\_\_ inches or gage. Number \_\_\_\_\_ Type \_\_\_\_\_  
 (Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material \_\_\_\_\_ T.S. \_\_\_\_\_ Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in. Dia. \_\_\_\_\_ ft. \_\_\_\_\_ in. Length \_\_\_\_\_ ft. \_\_\_\_\_  
 (Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ Efficiency \_\_\_\_\_ %  
 Girth \_\_\_\_\_ H.T. \_\_\_\_\_ R.T. \_\_\_\_\_ No. of Courses \_\_\_\_\_

13. Heads: (a) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_  
 Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Concial Apex Angle Hemispherical Radius Flat Diameter Side to Press. ( conv. or conc. )  
 (a) Top, bottom, ends \_\_\_\_\_  
 (b) Channel \_\_\_\_\_  
 If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
 (Describe or attach sketch)

14. Design pressure <sup>2</sup> \_\_\_\_\_ psi at \_\_\_\_\_ ° F at temp of \_\_\_\_\_ ° F  
 Drop Weight \_\_\_\_\_  
 Charpy Impact \_\_\_\_\_ ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

17. Inspection Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 Openings: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
 (Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES\*  
As required by the Provision of the ASME Code Rules, Section III, Div. I

W07 NO. 01025424 06

*Vulcan Supply*  
4/25/01

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401

( Name and Address of NPT Certificate Holder )

(b) Manufactured for : WNP 2 Richland, Washington 99352

( Name and Address of N Certificate Holder for completed nuclear component )

2. Identification - Certificate Holder's S/N of Part : B0757 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

( Brief description of service for which component was designed )

*The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.*

*Serial # and tester stamp is an alternate method of marking.*

Sheet 2 of 2

1. Cap 166B9274P001 ✓  
SA182 - F304  
3/8" thick x 1 1/16" OD

2. Indicator Tube 166B9313P001 ✓  
SA312 - TP316  
3/4" sch 40 - seamless pipe  
0.113" wall thickness  
1.065" max. dia.

3. Plug 159A1176P001  
SA182 - F304  
1/4" thick x 0.812" OD

4. Flange 919D610P001 (719E474)  
SA182 - F304  
3.37" thick x 9 5/8" OD

5. Base 137C5311P001  
SA182 - F304  
7/8" thick x 2.875" dia.

6. Ring Flange 114B5122P002, P003  
137C8151P001, P002  
SA182 - F304  
1" thick x 5.0" OD x 1.75" ID

7. Cap Screw 117C4516P002  
SA193 - B6  
6 ea. 1/2" dia. on 4 1/8" bolt circle

8. Plug 175A7961P001  
SA182 - F304  
0.38" thick x 1.307" dia.

9. Nut 137C5934P001  
XM - 19 SA479  
1.30" thick x 2.62" dia.

