

P.O. Box 968 ■ Richland, Washington 99352-0968

September 24, 2001 GO2-01-130

Docket No. 50-397

U. S. Nuclear Regulatory Commission Attn: Document Control Desk Washington, DC 20555

Gentlemen:

Subject:

COLUMBIA GENERATING STATION, OPERATING LICENSE NPF-21 INSERVICE INSPECTION SUMMARY REPORT FOR REFUELING OUTAGE R-15

The Columbia Generating Station Inservice Inspection Summary Report for Refueling Outage R15 is enclosed. This report is submitted in accordance with Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Article IWA-6240. Pursuant to ASME Code Section XI, Article IWA-6230, the NIS-1 Owner's Report for Inservice Inspection and NIS-2 Owner's Report for Repairs and Replacements are included.

Should you have any questions or require additional information pertaining to this report, please contact RN Sherman at (509) 377-8616.

Respectfully,

**RL** Webring

Vice President, Operations Support/PIO

Mail Drop PE08

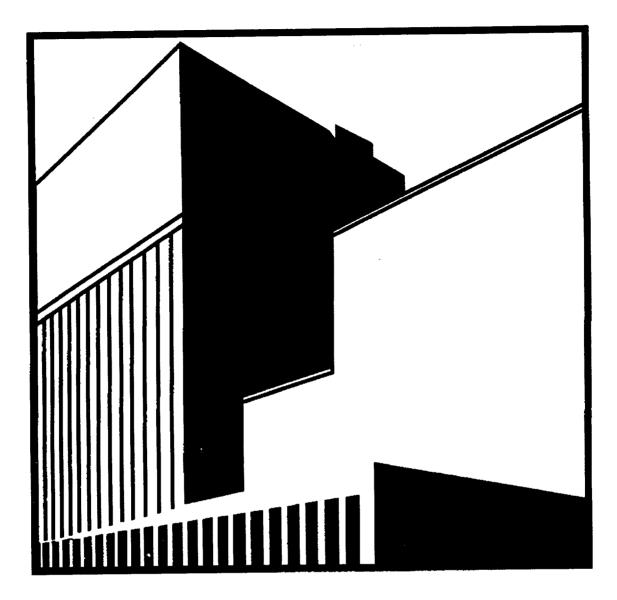
Enclosure

cc: EW Merschoff – NRC-RIV

JS Cushing – NRC- NRR w/o

TC Poindexter – Winston & Strawn w/o

NRC Sr. Resident Inspector – 988C w/o DL Williams – BPA/1399 w/o



COLUMBIA GENERATING STATION
INSERVICE INSPECTION
SUMMARY REPORT
FOR REFUELING OUTAGE
R15

Spring, 2001



# INSERVICE INSPECTION SUMMARY REPORT FOR REFUELING OUTAGE R15

OWNER:

**Energy Northwest** 

Colombia Generating Station North Power Plant Loop Richland, Washington 99352

PLANT:

Columbia Generating Station North Power Plant Loop Richland, Washington 99352

COMMERCIAL SERVICE DATE: December 13, 1984

CAPACITY: 3486 Megawatts Thermal

REACTOR PRESSURE VESSEL: Manufacturer: CBIN

State No.: 29936-84W

Serial Number: T-45

Nat'l Bd No.: 8

Prepared By:	DeRamey	8/28/200
	ISI Engineer	Date
	Puldip Lings	8/28/01
	Program Lead Engineer	Date
Reviewed & Concurred	NDE Lead	8/28/01 Date
By:	- I	, I
•	ISI Engineer's Supervisor	8/29/01 Date
Concurrence	1/M Anto	8/31/11
	Authorized Nuclear Inservice Inspector	Date

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#### **SUMMARY**

Columbia Generating Station has completed American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME) Section XI examinations for the sixth refueling outage of the second inspection interval. Examination of feedwater nozzle inner radius, core spray sparger and supply piping and feedwater sparger flow holes were also completed during this outage.

#### **EXAMINATION RESULTS**

This report summarizes the results of inservice inspection (ISI) of ASME Section III, Code Class 1 and 2 components performed at Columbia Generating Station between October 24, 1999 and July 2, 2001. Both General Electric (GE) and Energy Northwest personnel performed the examinations. During this period, Columbia Generating Station completed its fifteenth scheduled refueling outage, R15. This outage is the sixth refueling outage of the second inspection interval. This report includes a copy of the NIS-1 Owner's Report of Inservice Inspection for this refueling outage in Appendix A and copies of the NIS-2 Owner's Report of Repair or Replacement in Appendix B.

Documentation supporting this summary report is located in the Columbia Generating Station files (DIC 1100).

The ISI examinations are specified in ASME Section XI and required by 10CFR50.55a. In addition, the following examinations were performed to meet augmented requirements or commitments.

- Feedwater nozzle inner radius and bore region for NUREG 0619.
- Feedwater sparger flow holes
- Core spray sparger and supply piping.
- Selected areas of jet pumps
- Control rod blade for RICSIL No. 084

#### ASME SECTION XI EXAMINATIONS

The ASME Section XI examinations performed during the fifteenth refueling outage comply with the 1989 Edition with no Addenda, 1992 Edition through 1992 Addenda for subsection IWE, and 1995 Edition through 1996 Addenda for Appendix VIII.

A summary and the items examined for ASME Section XI requirements are included on the NIS-1 Owner's Data Report for Inservice Inspection. A copy is included as Appendix A.

#### **AUGMENTED EXAMINATIONS**

Feedwater Nozzle Inner Radius (ISI Program Plan Section 6.2.3)

One feedwater nozzle inner radius, bore, and associated safe-end were examined. No unacceptable indications were found.

The feedwater sparger flow holes were visually examined. Small crack-like indications were found on several of the flow holes during the R13 refuel outage. They were re-inspected and mapped at R14. This examination mapped the cracks and determined if they have changed from what was reported in the previous examinations. Engineering evaluation concluded that the existing flow hole cracking will not have an adverse impact on the functional performance of the feedwater spargers, and continued operation for at least one fuel cycle is justified without re-inspection.

Core Spray Sparger and Supply Piping (ISI Program Plan Section 6.6.2)

A visual examination of the core spray sparger and supply piping was performed per the requirements of BWRVIP-18. No unacceptable indications were observed.

Snubber Testing (ISI Program Plan section 6.2.2)

An initial sample of thirty-seven (37) snubbers was selected from the Columbia Generating Station general population of 393 safety-related snubbers. These snubbers were randomly selected by computer subroutine that is part of the ISI System database. The selected snubbers were then reviewed to determine if the sample was representative, as required by Licensee Controlled Specification Basis SR 1.7.3.1.e.

Testing of snubbers was performed using portable test devices called "Validators", supplied by the snubber manufacturer. There were no unacceptable results. The snubbers tested are listed on the NIS-1 Owner's Report of Inservice Inspection form in Appendix A.

#### NON-REGULATORY AUGMENTED EXAMINATIONS

Additional Reactor Pressure Vessel (RPV) internal visual examinations were performed on jet pump adjusting screws, jet pump brackets, and control rod blades. These examinations were performed based on Energy Northwest internal review of the applicable BWRVIP documents and SILs and their application to Columbia Generating Station.

A re-inspection of the jet pump adjusting screws was performed to document any gaps between the setscrew and inlet mixer and any other abnormal conditions. Jet pump 16 had its first indications of wear on the wedge identified during this outage. Previous wear on other wedges was examined along with adjusting screw to jet pump gaps. Engineering evaluation determined that all identified conditions were acceptable.

Control rod blades were examined per the guidance of GE RICSIL 084, dated May 12, 2001. Crack-like indications were noticed in the pin and roller area. Engineering evaluation determined that the condition was acceptable for continued operation.

### REPAIRS AND REPLACEMENTS

Nine (9) significant ASME Section XI repair or replacement activities were performed during R15 as listed below. A listing and NIS-2 Owner's Reports for these and other ASME Section XI repair or replacement work accomplished and closed out between October 15, 1999 and July 2, 2001 are provided in Appendix B.

### 1) Main Steam Relief Valves (MSRVs)

Modified fourteen (14) spare nozzles. Refurbished nine (9) main steam relief valves. These main steam relief valves were refurbished by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The refurbishment work was performed in accordance with NWS Technologies, LLC VR and NR programs. Replaced nine (9) main steam relief valves.

#### 2) Relief Valves

Modified outlet flanges for relief valves LPCS-RV-18 and HPCS-RV-35. Replaced miscellaneous relief valves such as LPCS-RV-18, HPCS-RV-35, SLC-RV-29A, SLC-RV-29B, RHR-RV-25B, RHR-RV-5, RCIC-RV-19T.

#### 3) Valves

Replaced parts for valves RCIC-PCV-15, HPCS-V-4 and MS-V-20. Replaced miscellaneous valves such as RCC-V-610, SLC-V-16, HPCS-V-39, SW-V-2A, TIP-V-3, CAS-V-326A through CAS-V-326D.

#### 4) Pumps

Assembled spare mechanical seal for RRC pumps. Replaced mechanical seals for pumps RRC-P-1A and RRC-P-1B.

### 5) Reactor Core Isolation Cooling (RCIC) System

Performed the following work on the Reactor Core Isolation Cooling (RCIC) System:

### 6) Connections

Modified the following connections to reduce the possibility of fatigue failures:

Modified vent connection associated with valve LPCS-V-83. Modified vent connection associated with valve HPCS-V-102.

### 7) Local Power Range Monitoring (LPRM) Assembly

Replaced Local Power Range Monitoring (LPRM) incore assembly at Reactor Pressure Vessel (RPV) Core Location No 24-09.

### 8) Control Rod Drive (CRD) Assemblies

Performed the following work on the Control Rod Drive (CRD) assemblies:

Assembled nine (9) Control Rod Drive (CRD) assemblies from all new parts. Overhauled twenty-six (26) Control Rod Drive (CRD) assemblies. Replaced twenty-nine (29) Control Rod Drive (CRD) assemblies. Removed and reinstalled two (2) Control Rod Drive (CRD) assemblies. Installed replacement cap screws for all thirty-one (31) Control Rod Drive (CRD) assemblies bolted flanged connections.

### 9) Supports

Replaced nine (9) snubbers. Replaced additional nine (9) snubbers with rigid struts.

# APPENDIX A

NIS-1 Owner's Report for Inservice Inspection

### FORM NIS-1 OWNER'S DATA REPORT FOR INSERVICE INSPECTIONS

As required by the Provisions of the ASME Code Rules

Owner: Energy Northwest, Columbia Generating Station, North Power Plant Loop, Richland, Washington <del>1</del>. 99352

2. Plant: Columbia Generating Station, North Power Plant Loop, Richland, Washington

Plant Unit: 3.

Columbia Generating Station

Owner Certificate of Authorization: 4.

Commercial Service Date: 5.

12/13/84

National Board Number: NA 6.

7. Components Inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
RPV	CBIN Nuclear Company	T-45	29936-84W	CBIN-8
Large Bore Pipe	Bechtel - the piping examined is listed on pages 3-16 of this data report	NA	NA	NA
RHR-HX-1A	Delta Southern Co.	35009-74-1	29911-84W	3489
	·			
		<u> L</u>	<u> </u>	

### FORM NIS-1 (back)

8.	Examination Dates 10/25/99 to 7/2/01
9.	Inspection Period Identification 2 10. Inspection Interval Identification 2
11.	Applicable Edition of Section XI 1989 Addenda none
12.	Date/Revision of Inspection Plan December, 1994, Revision 0, change notices through 0-J
13.	Abstract of Examinations and Tests. Include a list of examinations and tests and a statement concerning status of work required for the Inspection Plan:  Approximately 60.8% of the examinations required for this interval have been completed. See pages 3-16 of this data report for a listing of examinations and tests completed during this refueling outage. Continued on page 3.
<ul><li>14.</li><li>15.</li></ul>	Abstract of Results of Examinations and Tests. All examinations and tests were acceptable except the following:  1) Unacceptable dye penetrant indication in RRC-P-1A lug to pump weld.  2) One strut of component support MS-1010N had a cracked weld.  3) One stud from RPV top head vent flange 4MS(12)-1BD was found galled.  4) During post outage Code Category B-P pressure test, leaks were found in RFW-V-32B and RCIC-V-63. Abstract of Corrective Measures:  1) The RRC-P-1A lug indication was removed and reexamination was acceptable.
	<ol> <li>The MS-1010N strut was replaced.</li> <li>The galled stud from 4MS(12)-1BD was replaced.</li> <li>The leaks in RFW-V-32B and RCIC-V-63 were repaired.</li> </ol>
as requ Section Certifi	cate of Authorization No. (if applicable) NA Expiration Date NA
Date	2001 Signed Energy Northwest By on Central Owner
	CERTIFICATE OF INSERVICE INSPECTION
Inspec Island 7/2/01 correc	undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel tors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode have inspected the components described in this Owner's Data Report during the period 10/25/99 to and state that to the best of my knowledge and belief, the Owner has performed examinations and taken tive measures described in this Owner's Report in accordance with the Inspection Plan and as required by the E Code, Section XI.
concer neither	ning this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, rning the examinations, tests, and corrective measures described in this Owner's Report. Furthermore, r the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or f any kind arising from or connected with this inspection.
Inspe	Commissions 748647486 w ISB IS ector's Signature National Board, State, Province, and Endorsements
Date (	5/30 200/

1. Owner: Energy Northwest, 3000 George Washington Way, PO Box 968, Richland, Washington 99352

2. Plant: Columbia Generating Station, Hanford Reservation, Benton County, Washington

3. Plant Unit: Columbia Generating Station

4. Owner Certificate of Authorization: NA

5. Commercial Service Date: 12/13/84

6. National Board Number: NA

### 13. Abstract of Examinations and Tests (continued):

Snubber Functional Testing - IWF-5000

Snubbe	r Mark Number	Position	Description	Serial	No. <u>Test Da</u>	ite	
RCIC-1	00	EAST	PSA-1/2	2536	5/23/01		
RHR-21		LASI	PSA-1/2	111	5/22/01		
RHR-23		WEST	PSA-1/4	305	5/22/01		
MD-136		MEST	PSA-1/4	19890	5/21/01		
MS-136			PSA-1/2	2470	5/25/01		
MSLC-2		TOP	PSA-1/4	289	5/25/01		
FPC-65		101	PSA-1	22353	5/23/01		
HPCS-9			PSA-10	9944	5/22/01		
LPCS-2			PSA-3	3891	5/22/01		
RHR-35			PSA-3	2346	5/23/01		
RHR-40			PSA-3	4420			
RHR-94		вот	PSA-3	2580	5/23/01		
RHR-59		601	PSA-10	9942	5/22/01		
RHR-13		WEST			5/22/01		
RHR-94		MESI	PSA-10 PSA-3	14553	5/22/01		
RHR-54		EAST	PSA=3	4411 630	5/22/01		
RHR-55		EAST	PSA-3		5/23/01		
RHR-94		WEST		3940	5/23/01		
RHR-21		EAST	PSA-1 PSA-10	134	5/22/01		
RHR-94		BOT		308	5/22/01		
RHR-40		BOI	PSA-3	2570	5/23/01		
SW-29	3	cita	PSA-1	621	5/22/01		
		SW	PSA-10	4860	5/22/01		
MS-48	D 0		PSA-3	10605	5/21/01		
MSRV-41			PSA-10	9933	5/25/01		
MSLC-2			PSA-1	581	5/24/01		
RFW-17:			PSA-10	579	5/25/01		
RFW-942		BOT	PSA-1	338	5/24/01		
RHR-388		WEST	PSA-10	1486	5/25/01		
RHR-28		EAST	PSA-10	15458	5/24/01		
RHR-SA-		WEST	PSA-10	9937	5/25/01		
RHR-901		NORTH	PSA-3	265	5/24/01		
RWCU-10		SE	PSA-1	582	5/24/01		
MS-1009			PSA-35	10736	5/21/01		
RFW-15.			PSA-35	10732	5/25/01		
RHR-282			PSA-35	9256	5/24/01		
RHR-481			PSA-35	10739	5/22/01		
RHR-495	5	BOT	PSA-35	6175	5/24/01		
KEY							
вм	Bottom 1	NE North	neast	se s	outheast	UΑ	Single snubber
Е	East 1	NW North	west		outh	W	West
N	North S	SW South	west	TP T	op		

Notes to snubber functional testing

All snubber functional tests were acceptable. None of the tested snubbers require testing at the next refueling outage. Testing results are documented in plant procedure TSP-SNUBBER-R702.

- 1. Owner: Energy Northwest, 3000 George Washington Way, PO Box 968, Richland, Washington 99352
- 2. Plant: Columbia Generating Station, Hanford Reservation, Benton County, Washington
- 3. Plant Unit: Columbia Generating Station
- 4. Owner Certificate of Authorization: NA
- 5. Commercial Service Date: 12/13/84
- 6. National Board Number: NA

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
Examination Category: B-A Item Number: B1.12							
BN BP BR	#4 SC VRT W@330 #4 SC VRT W@ 90 #4 SC VRT W@210	RPV-101 RPV-101 RPV-101		VOT AOT	R15-106 R15-107 R15-108	5/29/01 5/27/01 5/27/01	A A A
Item Number: B1.30							
AE	#4 SC-FL CRC WD	RPV-101		VOL	R15-105	5/29/01	А
Examination Category: B-D Item Number: B3.90							
N3-108 N3-252 N3-288 N8 N18	MS NZ-V @ 108 MS NZ-V @ 252 MS NZ-V @ 288 HD VN NZ-HD TOP SPARE NZ-TOP HD	REV-101 REV-101 REV-101 REV-102 REV-102		VOL VOL VOL VOL	R15-111 R15-113 R15-115 R15-117 R15-109	5/27/01 5/29/01 5/29/01 5/30/01 5/30/01	A A A A
Item Number. B3.100							
N3-108-IR N3-252-IR N3-288-IR N4-330-IR N8-IR N18-IR	MS NZ-IR @ 108 MS NZ-IR @ 252 MS NZ-IR @ 288 FW NZ-IR @ 330 HD VN NZ-HD IR SPARE NZ-TOP IR	RPV-101 RPV-101 RPV-101 RPV-101 RPV-102 RPV-102		VOL VOL VOL VOL VOL	R15-112 R15-114 R15-116 2RPU-009 R15-118 R15-110	5/27/01 5/29/01 5/29/01 5/27/01 5/30/01 5/30/01	A A A A A
Item Number: NA							
N4-330-NB	FW NZ BORE @330	RE'V-101		VOL	2RFU-009	5/27/01	А
Examination Category: B-F Item Number: B5.10							
12RFW(1)BF-14 12RFW(1)BF-14 12RFW(1)BD-11 12RFW(1)BD-11 24RRC(2)A-1	SE TO N4 SE TO N4 SE TO N4 SE TO N4 NOZ TO SE	RFW-102 RFW-102 RFW-102 RFW-102 RRC-101	05 05 03 03	SUR VOL SUR VOL VOL	2FWE-009 R15-011 2FWE-010 R15-011 R15-043	5/27/01 6/1/01 5/28/01 6/3/01 5/30/01	A A A A
Item Number: B5.130							
12RFW(1)BF-12 12RFW(1)BF-12 12RFW(1)BD-9 12RFW(1)BD-9 20RHR(2)-2 20RHR(2)-2	SE EXT-SE STUB SE EXT-SE STUB SE EXT-SE STUB SE EXT-SE STUB SE TO VLV SE TO VLV	RFW-102 RFW-102 RFW-102 RFW-102 RHR-104 RHR-104	05 05 03 03	SUR VOL SUR VOL SUR VOL	2FWP-009 R15-009 2FWP-011 R15-008 2RHP-007 R15-037	5/27/01 6/2/01 5/28/01 6/2/01 5/27/01 5/27/01	A A A A A
Examination Category: B-G-1 Item Number: B6.10							
REV NUT 36-1-3A REV NUT 36-1-3A REV NUT 36-1-3A REV NUT 36-1-4A REV NUT 36-1-4A REV NUT 36-1-4A REV NUT 36-1-5A	REV NUT	RFV-101 RFV-101 RFV-101 RFV-101 RFV-101 RFV-101 RFV-101		SUR VOL VOL SUR VOL VOL SUR	2RPM-005 2RPU-010 2RPU-011 2RPM-006 2RPU-010 2RPU-011 2RPM-006	5/28/01 5/28/01 5/28/01 5/28/01 5/28/01 5/28/01 5/28/01	A A A A A

1. Owner: Energy Northwest, 3000 George Washington Way, PO Box 968, Richland, Washington 99352

2. Plant: Columbia Generating Station, Hanford Reservation, Benton County, Washington

Plant Unit: Columbia Generating Station
 Owner Certificate of Authorization: N.

5. Commercial Service Date: 12/13/84

6. National Board Number: NA

Identification No.	Description	Diagram No. Pg.	Method	Report No.	Date	Rslts(1)
RPV NUT 36-1-5A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	А
RPV NUT 36-1-5A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-10A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-10A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-10A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	Ä
RPV NUT 36-1-11A	RPV NUT	RPV-101	SUR	2RPM-006	5/28/01	A
RPV NUT 36-1-11A	REV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-11A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-12A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-12A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-12A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-17A	RPV NUT	RPV-101	SUR	2RPM-006	5/28/01	А
RPV NUT 36-1-17A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	А
RPV NUT 36-1-17A	RPV NUT	RF'V-101	VOL	2RPU-011	5/28/01	А
RPV NUT 36-1-18A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	А
RPV NUT 36-1-18A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	А
RPV NUT 36-1-18A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-19A	RPV NUT	RFV-101	SUR	2RPU-006	5/28/01	А
RPV NUT 36-1-19A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	А
RPV NUT 36-1-19A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	А
RPV NUT 36-1-24A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-24A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-24A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-25A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-25A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-25A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-26A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-26A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-26A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-31A	RPV NUT	RPV-101	SUR	2RPM-006	5/28/01	A
RFV NUT 36-1-31A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	А
RPV NUT 36-1-31A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	А
RPV NUT 36-1-32A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	А
RPV NUT 36-1-32A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	А
RPV NUT 36-1-32A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	А
RPV NUT 36-1-33A	RPV NUT	RFV-101	SUR	2RPM-005	5/28/01	А
RPV NUT 36-1-33A	REV NUT	RPV-101	VOL	2RPU-010	5/28/01	Α
RPV NUT 36-1-33A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-38A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	А
RPV NUT 36-1-38A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	Α
RPV NUT 36-1-38A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	Α
RPV NUT 36-1-39A	RPV NUT	RPV-101	SUR	2RPU-005	5/28/01	А
RPV NUT 36-1-39A	RPV NUT	RFV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-39A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	Α
RPV NUT 36-1-40A	RPV NUT	RFV-101	SUR	2RPM-006	5/28/01	Α
RPV NUT 36-1-40A	RPV NUT	RFV-101	VOL	2RPU-010	5/28/01	А
RFV NUT 36-1-40A	REV NUT	RFV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-45A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	А
RPV NUT 36-1-45A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-45A	RPV NUT	RFV-101	VOL	2RPU-011	5/28/01	Α
RPV NUT 36-1-46A	RPV NUT	RFV-101	SUR	2RPM-006	5/28/01	Α
RPV NUT 36-1-46A	RPV NUT	RFV-101	VOL	2RPU-010	5/28/01	Α
RFV NUT 36-1-46A	RPV NUT	RFV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-52A	RPV NUT	RFV-101	SUR	2RPM-005	5/28/01	А
RPV NUT 36-1-52A	REV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-52A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	А
RFV NUT 36-1-53A	REV NUT	RPV-101	SUR	2RPM-005	5/28/01	А
RFV NUT 36-1-53A	REV NUT	RPV-101	VOL	2RFU-010	5/28/01	А
RPV NUT 36-1-53A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	А
RPV NUT 36-1-59A	RPV NUT	RPV-101	SUR	2RPU-005	5/28/01	А
RPV NUT 36-1-59A	REV NUT	RPV-101	VOL	2RPU-010	5/28/01	А

- 1. Owner: Energy Northwest, 3000 George Washington Way, PO Box 968, Richland, Washington 99352
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- 5. Commercial Service Date: 12/13/84
- 6. National Board Number: NA

Identification No.	Description	Diagram No. Pg.	. Method	Report No.	Date	Rslts(1)
RPV NUT 36-1-59A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	А
RPV NUT 36-1-60A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	Ä
RPV NUT 36-1-60A	RPV NUT	RFV-101	VOL	2RPU-010	5/28/01	Ā
RPV NUT 36-1-60A	RPV NUT	RF'V-101	VOL	2RPU-011	5/28/01	Ä
RPV NUT 36-1-66A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-66A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-66A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-67A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-67A	RPV NUT	RFV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-67A	RPV NUT	RFV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-73A	RPV NUT	RFV-101	SUR	2RFM-005	5/28/01	A
RPV NUT 36-1-73A	RPV NUT	RF'V-101	AOL	2RPU-010	5/28/01	А
RPV NUT 36-1-73A	REV NUT	RE'V-101	VOL	2RPU-011	5/28/01	А
Item Number: B6.30						
RPV STUD 35-1-3A	RPV STUD	RFV-101	VOL	R15-119	5/22/01	А
RPV STUD 35-1-4A	RPV STUD	RFV-101	VOL	R15-119	5/22/01	А
RPV STUD 35-1-5A	RPV STUD	RF'V-101	VOL	R15-119	5/22/01	А
RPV STUD 35-1-10A	RPV STUD	RFV-101	VOL	R15-119	5/22/01	А
RPV STUD 35-1-11A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-12A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-17A	REV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-17A	REV STUD	REV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-18A			VOL	R15-119	5/22/01	A
RPV STUD 35-1-19A RPV STUD 35-1-24A	RPV STUD	RFV-101		R15-119	5/22/01	
	RPV STUD	RFV-101	VOL			A
RFV STUD 35-1-25A	RPV STUD	RFV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-26A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
REV STUD 35-1-31A	REV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-32A	REV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-33A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-38A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-39A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	А
RPV STUD 35-1-40A	RPV STUD	RE'V-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-45A	RPV STUD	RE'V-101	VOL	R15-119	5/22/01	А
RPV STUD 35-1-46A	RPV STUD	RE'V-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-52A	RPV STUD	RFV-101	VOL	R15-119	5/22/01	Α
RPV STUD 35-1-53A	RPV STUD	REV-101	VOL	R15-119	5/22/01	Α
RPV STUD 35-1-59A	RPV STUD	RE'V-101	VOL	R15-119	5/22/01	Α
RPV STUD 35-1-60A	RPV STUD	RFV-101	VOL	R15-119	5/22/01	Α
RPV STUD 35-1-66A	RPV STUD	REV-101	VOL	R15-119	5/22/01	Α
RPV STUD 35-1-67A	RPV STUD	RFV-101	VOL	R15-119	5/22/01	А
REV STUD 35-1-73A	RPV STUD	RE'V-101	VOL	R15-119	5/22/01	А
RPV STUD 35-1-74A	RPV STUD	RFV-101	VOL	R15-119	5/22/01	А
Item Number: B6.50						
REV WASHER 35-1-3A	RPV WASHER	RF'V-101	VT-1	2RFV-015	5/29/01	А
RPV WASHER 35-1-4A	RPV WASHER	RFV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-5A	RPV WASHER	RFV-101	VT-1	2RPV-015	5/29/01	A
REV WASHER 35-1-10A	RPV WASHER	RFV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-11A	REV WASHER	RFV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-12A	RPV WASHER	RFV-101	VT-1	2RPV-015	5/29/01	A
REV WASHER 35-1-17A	REV WASHER	RE'V-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-17A	RPV WASHER	RE'V-101	VT-1	2RPV-015	5/29/01	Ä
REV WASHER 35-1-10A	REV WASHER	RE'V-101	∨1-1 ∨T-1	2RPV-015	5/29/01	A
	REV WASHER	RE'V-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-24A				2RPV-015	5/29/01	
REV WASHER 35-1-25A	RPV WASHER	RFV-101	VT-1			A
RPV WASHER 35-1-26A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-31A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A
REV WASHER 35-1-32A	RPV WASHER	R ['V-101	VT-1	2RPV-015	5/29/01	А

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- 5. Commercial Service Date: 12/6. National Board Number: NA

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
DDI/ Wheupp 25 .1 227	RPV WASHER	D DV101		VT-1	2RPV-015	5/29/01	А
RPV WASHER 35-1-33A		RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-38A	RPV WASHER	RPV-101 RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-39A	RPV WASHER					5/29/01	A
RPV WASHER 35-1-40A	RPV WASHER	RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-45A	RPV WASHER	RPV-101		VT-1	2RPV-015		
RPV WASHER 35-1-46A	RPV WASHER	RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-52A	RPV WASHER	RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-53A	RPV WASHER	RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-59A	RPV WASHER	RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-60A	RPV WASHER	RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-66A	RPV WASHER	RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-67A	RPV WASHER	RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-73A	RPV WASHER	RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-74A	RPV WASHER	RPV-101		VT-1	2RPV-015	5/29/01	А
Examination Category: B-G-2 Item Number B7.10							
6SPARE-1BU	FLANGE BOLTING	RPV-102		VT-1	2RPV-016	5/28/01	А
Item Number: B7.50							
4HPCS(1)-1BD	FLANGE BOLTING	HPCS-101	01	VT-1	2HPV-005	5/31/01	А
	FLANGE BOLTING	LPCS-101	02	VT-1	2LPV-005	5/27/01	A
4LPCS(1)-1BU	FLANGE BOLTING	MS-101	01	VT-1	2MSV-136	5/27/01	Ä
8MSR-4A-2BD	FLANGE BOLTING	MS-101 MS-106	01	VT-1	2MSV-137	5/29/01	R(2)
4MS(12)-1BD		MS-106	01	VT-1	2MSV-137 2MSV-138	6/12/01	A A
4MS(12)-1BD	FLANGE BOLTING	M2-100	01	A1-1	ZM3V-136	0/12/01	^
Item Number: B7.70							
HPCS-V-4-BLT	VALVE BOLTING	HPCS-101	01	VT-1	2HPV-004	5/1/01	А
HPCS-V-5-BLT	VALVE BOLTING	HPCS-101	02	VT-1	2HPV-007	5/28/01	Α
HPCS-V-51-BLT	VALVE BOLTING	HPCS-101	02	VT-1	2HPV-006	5/28/01	А
LPCS-V-6-BLT	VALVE BOLTING	LPCS-101	02	VT-1	2LPV-004	5/27/01	Α
LPCS-V-51-BLT	VALVE BOLTING	LPCS-101	02	VT-1	2LPV-006	5/27/01	А
MS-RV-1A-BLT	VALVE BOLTING	MS-101	01	VT-1	2MSV-129	5/18/01	А
MS-RV-4B-BLT	VALVE BOLTING	MS-102	01	VT-1	2MSV-128	5/18/01	Α
MS-RV-3B-BLT	VALVE BOLTING	MS-102	01	VT-1	2MSV-131	5/18/01	Α
MS-RV-1B-BLT	VALVE BOLTING	MS-102	01	VT-1	2MSV-135	5/18/01	A
MS-RV-5C-BLT	VALVE BOLTING	MS-103	01	VT-1	2MSV-134	5/18/01	А
MS-RV-4C-BLT	VALVE BOLTING	MS-103	01	VT-1	2MSV-130	5/18/01	Α
MS-RV-3C-BLT	VALVE BOLTING	MS-103	01	VT-1	2MSV-127	5/18/01	Α
MS-RV-1C-BLT	VALVE BOLTING	MS-103	01	VT-1	2MSV-133	5/18/01	A
MS-RV-4D-BLT	VALVE BOLTING	MS-104	01	VT-1	2MSV-132	5/18/01	Α
RCIC-V-64-BLT	VALVE BOLTING	RCIC-101	01	VT-1	2RIV-008	5/4/01	Α
RCIC-V-8-BLT	VALVE BOLTING	RCIC-101	03	VT-1	2RIV-007	5/4/01	Α
RWCU-V-40-BLT	VALVE BOLTING	RFW-103		VT-1	2RTV-004	6/2/01	А
RHR-V-41B-BLT	VALVE BOLTING	RHR-102		VT-1	2RHV-021	5/24/01	Α
RHR-V-111B-BLT	VALVE BOLTING	RHR-102		VT-1	2RHV-020	5/24/01	A
RHR-V-53A-BLT	VALVE BOLTING	RHR-105		VT-1	2RHV-019	4/17/01	Α
RRC-V-23A-BLT	VALVE BOLTING	RRC-101	01	VT-1	2RRV-005	5/24/01	А
RRC-V-67B-BLT	VALVE BOLTING	RRC-102	02	VT-1	2RRV-006	5/25/01	А
RWCU-V-101-BLT	VALVE BOLTING	RWCU-101	01	VT-1	2RTV-003	5/28/01	А
RWCU-V-106-BLT	VALVE BOLTING	RWCU-101	02	VT-1	2RTV-002	5/28/01	Α
RWCU-V-1-BLT	VALVE BOLTING	RWCU-101	04	VT-1	2RTV-001	5/28/01	А
Examination Category: B-H Item Number: B8.10							
STAB-BRACKET-O	STAB LUG @ 0	RFV-101		SUR	2RPP-004	5/26/01	А
STAB-BRACKET-0	STAB LUG @ 45			SUR	2RPP-003	5/26/01	A
STAB-BRACKET-45	כד ש טטע מאונ	RPV-101		SOK	ZREE 003	3, 20, 01	11

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Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
STAB-BRACKET-90 STAB-BRACKET-135 STAB-BRACKET-180 STAB-BRACKET-225 STAB-BRACKET-270 STAB-BRACKET-315	STAB LUG @ 90 STAB LUG @ 135 STAB LUG @ 180 STAB LUG @ 225 STAB LUG @ 270 STAB LUG @ 315	RFV-101 RFV-101 RFV-101 RFV-101 RFV-101 RFV-101		SUR SUR SUR SUR SUR SUR	2RPP-003 2RPP-001 2RPP-005 2RPP-004 2RPP-004 2RPP-004	5/27/01 5/26/01 5/26/01 5/26/01 5/26/01 5/26/01	A A A A A
Examination Category: B-J Item Number: B9.11							
6RCIC(1)-39 6RCIC(1)-40 24RFW(1)B-4 6RFW(11)-4 6RFW(11)-5 4RFW(11)B-1 4RFW(11)B-2 4RFW(11)B-3 4RFW(11)B-4 4RFW(11)B-5 12RHR(1)B-5 12RHR(1)B-5 12RHR(1)B-5 12RHR(1)B-9 24RRC(2)A-2 24RRC(2)A-1	ELL TO PIPE PIPE TO VLV PENE TO VALVE PIPE TO ELL ELL TO PIPE REDUCER TO PIPE PIPE TO ELL ELL TO PIPE PIPE TO ELL ELL TO PIPE PIPE TO ELL ELL TO PIPE PIPE TO ELL VALVE TO PIPE	RCIC-102 RCIC-102 RFW-103 RFW-103 RFW-103 RFW-103 RFW-103 RFW-103 RFW-106 RHR-106 RHR-106 RHR-106 RRC-101 RRC-101	03 03 01	VOL	R15-085 R15-086 R15-047 R15-092 R15-093 R15-072 R15-075 R15-076 R15-077 R15-012 R15-013 R15-014 R15-044 R15-045 R15-049	5/28/01 5/28/01 5/29/01 5/30/01 5/30/01 5/30/01 5/30/01 5/30/01 5/30/01 5/24/01 5/24/01 5/24/01 5/22/01 5/24/01	A A A A A A A A A A A A A A A A A A A
24RRC(2)A-11 24RRC(1)A-14 24RRC(1)A-15 24RRC(1)A-16 24RRC(1)A-17 24RRC(1)A-18 24RRC(1)A-19 24RRC(1)A-20 12RRC(1)-N2A-1A 12RRC(1)-N2B-1A 12RRC(1)-N2C-1A 12RRC(1)-N2D-1A 12RRC(1)-N2D-1A 12RRC(1)-N2E-1A 20RRC(6)-8	PIPE TO ELL PIPE TO VALVE VALVE TO PIPE PIPE TO ELL ELL TO PIPE PIPE TO VALVE VALVE TO ELL ELL TO PIPE PIPE TO PIPE	RRC-101 RRC-101 RRC-101 RRC-101 RRC-101 RRC-101 RRC-101 RRC-101 RRC-101 RRC-101 RRC-101 RRC-101 RRC-101	01 02 02 02 02 02 02 02 02 08 07 06 05	AOT	R15-052 R15-053 R15-054 R15-055 R15-056 R15-058 R15-059 R15-015 R15-016 R15-017 R15-018 R15-019 R15-019	5/24/01 5/24/01 5/25/01 5/25/01 5/25/01 5/25/01 5/24/01 5/26/01 5/26/01 5/25/01 5/25/01 5/25/01	A A A A A A A A A A A A A A A A A A A
Examination Category: B-K-1 Item Number: B10.10							
HPCS-64(W) MS-HB-1(W) MS-HC-1(W) MS-HC-1(W) MS-HD-1(W) RCIC-1C-13(W) RCIC-1C-2(W) RFW-157(W) RFW-155(W) RRC-HA-1(W) RWCU-1C-17(W) RWCU-1C-4PS(W) RWCU-1C-3(W)	4 WELDED LUGS 4 WELDED LUGS 4 WELDED LUGS 8 WELDED LUGS 8 WELDED LUGS 4 WELDED LUGS 4 WELDED LUGS 4 WELDED LUGS 8 WELDED LUGS	HPCS-101 MS-102 MS-103 MS-104 RCIC-101 RCIC-101 RFW-101 RFW-102 RRC-101 RWCU-101 RWCU-101 RWCU-101	01 01 01 02 03 05 05 01 01 03	SUR	2HFM-011 2MSM-041 2MSM-042 2MSM-040 2RIM-013 2RIM-016 2RWM-017 2RRP-014 2RTM-001 2RTM-001 2RTM-002 2RTM-003	5/28/01 5/28/01 5/28/01 5/28/01 5/30/01 5/30/01 5/29/01 5/29/01 5/25/01 5/28/01 5/28/01 5/29/01	A A A A A A A A A A A A A A A A A A A
Item Number: B10.20	1 WELDED THE	DDG 103		aun.	2000 A12	E / 0 E / 0 1	D. ( 2 )
RRC-RA-1(W) RRC-RA-1(W)	1 WELDED LUG 1 WELDED LUG	RRC-103 RRC-103		SUR SUR	2RRP-013 6-01-4-4	5/25/01 6/3/01	R(3) A

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  Plant: Columbia Generating Station, Hanford Reservation, Benton County, Washington 1.
- 2.
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- Owner Certificate of Authorization: 4.
- 5. **Commercial Service Date:** 12/13/84
- National Board Number: NA 6.

Identification No.	Description	Diagram No. Pg.	Method	Report No.	Date	Rslts(1)
RRC-RB-1(W)	1 WELDED LUG	RRC-103	SUR	2RRP-015	5/28/01	А
Examination Category B-N-1 Item Number: B13.10						
JP RISER BRACE	JP RISER BRACE	RPV-101	VT-1	R15 IVVI	6/5/01	A
RPV INTERIOR	RPV INTERIOR	RPV-101	VT-3	R15 IVVI	6/5/01	A
Item Number: B13.30	•					
LPCS HDR CLMP ATT WLD 1 LPCS HORT SEIS ATT WLD LPCS VERT SEIS ATT WLD LPCS HDR CLMP ATT WLD 2 HPCS HDR CLMP ATT WLD 1 HPCS VERT SEIS ATT WLD HPCS HORT SEIS ATT WLD HPCS HDR CLMP ATT WLD 2	RPV ATTACH WELD	RPV-101 RPV-101 RPV-101 RPV-101 RPV-101 RPV-101 RPV-101 RPV-101	EVT1 EVT1 EVT1 EVT1 EVT1 EVT1 EVT1 EVT1	R15 IVVI R15 IVVI R15 IVVI R15 IVVI R15 IVVI R15 IVVI R15 IVVI	6/5/01 6/5/01 6/5/01 6/5/01 6/5/01 6/5/01 6/5/01	A A A A A A A
Examination Category: B-P Item Number: B15.10						
RPV-PB-101(L)	LK PRES BNDRY	RPV-101	VT-2	OSP-RPV-R801	6/19/01	A
RPV-PB-102(L)	LK PRES BNDRY	RPV-102	VT-2	OSP-RPV-R801	6/19/01	A
Item Number: B15.50						
HPCS-PB-101(L)	LK PRES BNDRY	HPCS-101	VT-2	OSF-RPV-R801	6/19/01	A
LPCS-PB-101(L)	LK PRES BNDRY	LPCS-101	VT-2	OSF-RPV-R801	6/19/01	A
MS-PB-101(L)	LK PRES BNDRY	MS-101	VT-2	OSP-RPV-R801	6/19/01	A
MS-PB-102(L)	LK PRES BNDRY	MS-102	VT-2	OSF-RPV-R801	6/19/01	A
MS-PB-103(L)	LK PRES BNDRY	MS-103	VT-2	OSP-RPV-R801	6/19/01	A
MS-PB-104(L)	LK PRES BNDRY	MS-104	VT-2	OSF-RPV-R801	6/19/01	A
MS-PB-105(L)	LK PRES BNDRY	MS-105	VT-2	OSP-RPV-R801	6/19/01	A
MS-PB-106(L)	LK PRES BNDRY	MS-106	VT-2	OSP-RPV-R801	6/19/01	A
RCIC-PB-101(L)	LK PRES BNDRY	RCIC-101	VT-2	OSP-RPV-R801	6/19/01	A
RCIC-PB-102(L)	LK PRES BNDRY	RCIC-102	VT-2	OSP-RPV-R801	6/19/01	A
RFW-PB-101(L)	LK PRES BNDRY	RFW-101	VT-2	OSP-RPV-R801	6/19/01	A
RFW-PB-102(L)	LK PRES BNDRY	RFW-102	VT-2	OSP-RPV-R801	6/19/01	A
RHR-PB-101(L)	LK PRES BNDRY	RHR-101	VT-2	OSP-RPV-R801	6/19/01	A
RHR-PB-102(L)	LK PRES BNDRY	RHR-102	VT-2	OSP-RPV-R801	6/19/01	A
RHR-PB-103(L)	LK PRES BNDRY	RHR-103	VT-2	OSP-RPV-R801	6/19/01	A
RHR-PB-104(L)	LK PRES BNDRY	RHR-104	VT-2	OSP-RPV-R801	6/19/01	A
RHR-PB-105(L)	LK PRES BNDRY	RHR-105	VT-2	OSP-RPV-R801	6/19/01	A
RHR-PB-106(L)	LK PRES BNDRY	RHR-106	VT-2	OSP-RPV-R801	6/19/01	A
RRC-PB-101(L)	LK PRES BNDRY	RRC-101	VT-2	OSP-RPV-R801	6/19/01	A
RRC-PB-102(L)	LK PRES BNDRY	RRC-102	VT-2	OSP-RPV-R801	6/19/01	A
RRC-PB-104(L)	LK PRES BNDRY	RRC-104	VT-2	OSP-RPV-R801	6/19/01	A
RRC-PB-105(L)	LK PRES BNDRY	RRC-105	VT-2	OSP-RPV-R801	6/19/01	A
RRC-PB-106(L)	LK PRES BNDRY	RRC-106	VT-2	OSP-RPV-R801	6/19/01	A
RRC-PB-107(L)	LK PRES BNDRY	RRC-107	VT-2	OSP-REV-R801	6/19/01	A
RRC-PB-108(L)	LK PRES BNDRY	RRC-108	VT-2	OSP-REV-R801	6/19/01	A
RRC-PB-109(L)	LK PRES BNDRY	RRC-109	VT-2	OSP-REV-R801	6/19/01	A
RRC-PB-110(L)	LK PRES BNDRY LK PRES BNDRY LK PRES BNDRY LK PRES BNDRY	RRC-110	VT-2	OSP-RPV-R801	6/19/01	A
RRC-PB-111(L)		RRC-111	VT-2	OSP-RPV-R801	6/19/01	A
RWCU-PB-101(L)		RWCU-101	VT-2	OSP-RPV-R801	6/19/01	A
SLC-PB-101(L)		SLC-101	VT-2	OSP-RPV-R801	6/19/01	A
Item Number: B15.60						
RRC-P-1A-BDY(L)	LK PRES BNDRY	RRC-103	VT-2	OSP-RPV-R801	6/19/01	А

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   Commercial Service Date: 12/13/84
- 6. National Board Number: NA

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
RRC-P-1B-BDY(L) RRC-PB-103(L)	LK PRES BNDRY LK PRES BNDRY	RRC-103 RRC-103		VT-2 VT-2	OSP-RPV-R801 OSP-RPV-R801	6/19/01 6/19/01	A A
Item Number: B15.70							
HPCS-V-4-BDY(L)	LK PRES TEST	HPCS-101	01	VT-2	OSP-RPV-R801	6/19/01	А
HPCS-V-5-BDY(L)	LK PRES TEST	HPCS-101	02	VT-2	OSP-RPV-R801	6/19/01	A
HPCS-V-51-BDY(L)	LK PRES TEST	HPCS-101	02	VT-2	OSP-RPV-R801	6/1/90	A
LPCS-V-5-BDY(L)	LK PRES TEST	LPCS-101	01	VT-2	OSP-RPV-R801	6/19/01	А
LPCS-V-6-BDY(L)	LK PRES TEST	LPCS-101	02	VT-2	OSP-RPV-R801	6/19/01	A
LPCS-V-51-BDY(L)	LK PRES TEST	LFCS-101	02	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-4A-BDY(L)	LK PRES TEST	MS-101	01	<b>VT-</b> 2	OSP-RPV-R801	6/19/01	А
MS-RV-3A-BDY(L)	LK PRES TEST	MS-101	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-2A-BDY(L)	LK PRES TEST	MS-101	01	VT-2	OSP-RPV-R801	6/19/01	А
MS-RV-1A-BDY(L)	LK PRES TEST	MS-101	01	VT-2	OSE-REV-R801	6/19/01	А
MS-V-22A-BDY(L) MS-V-28A-BDY(L)	LK PRES TEST	MS-101	02	VT-2	OSP-RPV-R801	6/19/01	А
MS-RV-5B-BDY(L)	LK PRES TEST LK PRES TEST	MS-101	02	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-4B-BDY(L)	LK PRES TEST	MS-102	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-3B-BDY(L)	LK PRES TEST	MS-102 MS-102	01 01	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-2B-BDY(L)	LK PRES TEST	MS-102 MS-102	01	VT-2 VT-2	OSP-REV-R801	6/19/01	A
MS-RV-1B-BDY(L)	LK PRES TEST	MS-102	01	VT-2	OSP-RPV-R801 OSP-RPV-R801	6/19/01	A
MS-V-22B-BDY(L)	LK PRES TEST	MS-102	02	VT-2	OSP-RPV-R801	6/19/01 6/19/01	A A
MS-V-28B-BDY(L)	LK PRES TEST	MS-102	02	VT-2	OSP-REV-R801	6/19/01	Ä
MS-RV-5C-BDY(L)	LK PRES TEST	MS-103	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-4C-BDY(L)	LK PRES TEST	MS-103	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-3C-BDY(L)	LK PRES TEST	MS-103	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-2C-BDY(L)	LK PRES TEST	MS-103	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-1C-BDY(L)	LK PRES TEST	MS-103	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-V-22C-BDY(L)	LK PRES TEST	MS-103	02	VT-2	OSP-RPV-R801	6/19/01	A
MS-V-28C-BDY(L)	LK PRES TEST	MS-103	02	VT-2	OSP-RPV-R801	6/19/01	А
MS-RV-4D-BDY(L)	LK PRES TEST	MS-104	01	VT-2	OSP-REV-R801	6/19/01	А
MS-RV-3D-BDY(L)	LK PRES TEST	MS-104	01	VT-2	OSP-RPV-R801	6/19/01	А
MS-RV-2D-BDY(L)	LK PRES TEST	MS-104	01	VT-2	OSP-RPV-R801	6/19/01	А
MS-RV-1D-BDY(L)	LK PRES TEST	MS-104	01	VT-2	OSP-RPV-R801	6/19/01	А
MS-V-22D-BDY(L)	LK PRES TEST	MS-104	02	VT-2	OSP-RPV-R801	6/19/01	А
MS-V-28D-BDY(L)	LK PRES TEST	MS-104	02	VT-2	OSE-REV-R801	6/19/01	Α
RCIC-V-63-BDY(L)	LK PRES TEST	RCIC-101	01	VT-2	OSP-RPV-R801	6/19/01	R(4)
RCIC-V-64-BDY(L) RHR-V-23-BDY(L)	LK PRES TEST	RCIC-101	01	VT-2	OSP-REV-R801	6/19/01	А
RHR-V-19-BDY(L)	LK PRES TEST LK PRES TEST	RCIC-102	01	VT-2	OSP-RPV-R801	6/19/01	A
RCIC-V-13-BDY(L)	LK PRES TEST	RCIC-102	01	VT-2	OSE-REV-R801	6/19/01	A
RCIC-V-65-BDY(L)	LK PRES TEST	RCIC-102 RCIC-102	01 01	VT-2 VT-2	OSP-REV-R801 OSP-REV-R801	6/19/01	A
RCIC-V-66-BDY(L)	LK PRES TEST	RCIC-102	03	VT-2	OSP-REV-R801	6/19/01 6/19/01	A
RFW-V-65A-BDY(L)	LK PRES TEST	RFW-101	01	VT-2	OSP-REV-R801	6/19/01	A A
RFW-V-32A-BDY(L)	LK PRES TEST	RFW-101	01	VT-2	OSP-REV-R801	6/19/01	A
RFW-V-10A-BDY(L)	LK PRES TEST	RFW-101	01	VT-2	OSP-REV-R801	6/19/01	Ä
RFW-V-11A-BDY(L)	LK PRES TEST	RFW-101	01	VT-2	OSE-REV-R801	6/19/01	A
RFW-V-65B-BDY(L)	LK PRES TEST	RFW-102	01	VT-2	OSP-RPV-R801	6/19/01	A
RFW-V-32B-BDY(L)	LK PRES TEST	RFW-102	01	VT-2	OSP-REV-R801	6/19/01	R(5)
RFW-V-10B-BDY(L)	LK PRES TEST	RFW-102	01	VT-2	OSP-REV-R801	6/19/01	A
RFW-V-118-BDY(L)	LK PRES TEST	RFW-102	01	VT-2	OSP-RPV-R801	6/19/01	A
RWCU-V-40-BDY(L)	LK PRES TEST	RFW-103		VT-2	OSF-RPV-R801	6/19/01	А
RHR-V-42A-BDY(L)	LK PRES TEST	RHR-101		VT-2	OSE-REV-R801	6/19/01	А
RHR-V-41A-BDY(L)	LK PRES TEST	RHR-101		VT-2	OSP-RPV-R801	6/19/01	А
RHR-V-111A-BDY(L)	LK PRES TEST	RHR-101		VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-42B-BDY(L)	LK PRES TEST	RHR-102		VT-2	OSP-REV-R801	6/19/01	A
RHR-V-41B-BDY(L)	LK PRES TEST	RHR-102		VT-2	OSF-REV-R801	6/19/01	А
RHR-V-111B-BDY(L)	LK PRES TEST	RHR-102		VT-2	OSP-RPV-R801	6/19/01	А
RHR-V-42C-BDY(L)	LK PRES TEST	RHR-103		VT-2	OSE-REV-R801	6/19/01	А
RHR-V-41C-BDY(L)	LK PRES TEST	RHR-103		VT-2	OSP-RPV-R801	6/19/01	А

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Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
RHR-V-111C-BDY(L)	LK PRES TEST	RHR-103		VT-2	OSP-RPV-R801	6 (10 (01	7
RHR-V-113-BDY(L)	LK PRES TEST	RHR-103		VT-2	OSP-RPV-R801	6/19/01 6/19/01	A A
RHR-V-9-BDY(L)	LK PRES TEST	RHR-104		VT-2	OSP-RPV-R801	6/19/01	Ä
RHR-V-8-BDY(L)	LK PRES TEST	RHR-104		VT-2	OSP-RPV-R801	6/19/01	Ä
RHR-V-53A-BDY(L)	LK PRES TEST	RHR-105		VT-2	OSP-RPV-R801	6/19/01	Ā
RHR-V-50A-BDY(L)	LK PRES TEST	RHR-105		VT-2	OSP-RPV-R801	6/19/01	Ä
RHR-V-112A-BDY(L)	LK PRES TEST	RHR-105		VT-2	OSP-RPV-R801	6/19/01	Ä
RHR-V-50B-BDY(L)	LK PRES TEST	RHR-106		VT-2	OSP-RPV-R801	6/19/01	Ä
RHR-V-112B-BDY(L)	LK PRES TEST	RHR-106		VT-2	OSP-RPV-R801	6/19/01	Ä
RRC-V-23A-BDY(L)	LK PRES TEST	RRC-101	01	VT-2	OSF-REV-R801	6/19/01	Ä
RRC-V-60A-BDY(L)	LK PRES TEST	RRC-101	02	VT-2	OSP-RPV-R801	6/19/01	A
RRC-V-67A-BDY(L)	LK PRES TEST	RRC-101	02	VT-2	OSP-RPV-R801	6/19/01	A
RRC-V-23B-BDY(L)	LK PRES TEST	RRC-102	01	VT-2	OSP-RPV-R801	6/19/01	Ä
RRC-V-60B-BDY(L)	LK PRES TEST	RRC-102	02	VT-2	OSP-RPV-R801	6/19/01	A
RRC-V-67B-BDY(L)	LK PRES TEST	RRC-102	02	VT-2	OSP-RPV-R801	6/19/01	A
RWCU-V-102-BDY(L)	LK PRES TEST	RWCU-101	02	VT-2	OSP-RPV-R801	6/19/01	A
RWCU-V-1-BDY(L)	LK PRES TEST	RWCU-101	04	VT-2	OSP-RPV-R801	6/19/01	A
RWCU-V-4-BDY (L)	LK PRES TEST	RWCU-101	05	VT-2	OSP-RPV-R801	6/19/01	A
Examination Category: C-A	EK TRES TEST	KWCO 101	03	V 1 - Z	031 - KT V - K001	0/19/01	^
Item Number: C1.10							
AC-4	SHEL/HD CIR WLD	RHR-214		VOL	2RHU-014	4/17/01	А
Examination Category: C-B Item Number: C2.21							
AN-4	OUT NZ/SHEL WLD	RHR-214		SUR	2RHM-036	4/16/01	А
AN-4	OUT NZ/SHEL WLD	RHR-214		VOL	2RHU-013	4/17/01	A
AN-4	OUT NZ/SHEL WLD	RHR-214		VOL	2RHU-014	4/17/01	A
	777 712, 21122 7122	227		.02	20	1,1.,01	.,
Examination Category: C-C Item Number: C3.20							
MS-117(W)	1 WELDED SADDLE	MS-201	02	SUR	2MSM-031	5/24/01	А
MS-173(W)	2 WELDED LUGS	MS-202	01	SUR	2MSM-037	5/25/01	A
MS-998N(W)	8 WELDED LUGS	MS-202	02	SUR	2MSM-030	5/24/01	A
MS-1003N(W)	1 WELDED SADDLE	MS-203	01	SUR	2MSM-036	5/25/01	A
MS-39(W)	1 WELDED SADDLE	MS-203	02	SUR	2MSM-028	5/24/01	A
MS-30(W)	1 WELDED SADDLE	MS-203	03	SUR	2MSM-038	5/25/01	A
MS-26(W)	8 WELDED LUGS	MS-203	03	SUR	2MSM-039	5/25/01	A
MS-1010N(W)	8 WELDED LUGS	MS-204	02	SUR	2MSM-027	5/24/01	A
MS-61(W)	1 WELDED SADDLE	MS-204	02	SUR	2MSM-032	5/24/01	A
MS-59(W)	1 WELDED SADDLE	MS-204	02	SUR	2MSM-033	5/24/01	А
MS-51(W)	4 WELDED LUGS	MS-204	04	SUR	2MSM-029	5/24/01	A
MS-181(W)	3 WELDED SADDLE	MS-205		SUR	2MSM-034	5/25/01	А
MS-182(W)	1 WELDED SADDLE	MS-205		SUR	2MSM-035	5/25/01	A
RHR-158(W)	8 WELDED LUGS	RHR-201	01	SUR	2RHM-049	4/18/01	A
RHR-1001N(W)	8 WELDED LUGS	RHR-201	03	SUR	2RHM-051	4/18/01	A
RHR-362(W)	8 WELDED LUGS	RHR-201	05	SUR	2RHM-045	4/17/01	А
RHR-245(W)	8 WELDED LUGS	RHR-201	11	SUR	2RHM-038	4/19/01	А
RHR-597(W)	8 WELDED LUGS	RHR-204	02	SUR	2RHM-052	4/18/01	А
RHR-53(W)	4 WELDED LUGS	RHR-207	80	SUR	2RHM-053	4/25/01	А
RHR-465(W)	8 WELDED LUGS	RHR-207	09	SUR	2RHM-056	4/26/01	Α
RHR-479(W)	4 WELDED LUGS	RHR-207	10	SUR	2RHM-055	4/25/01	А
RHR-486(W)	4 WELDED LUGS	RHR-207	10	SUR	2RHM-054	4/25/01	А
Examination Category: C-F-2 Item Number: C5.51							
16HPCS(1)-7	ELL TO PIPE	HPCS-202	01	SUR	2HPM-009	5/1/01	А

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Identification No.	Description	Diagram No.	₽g.	Method	Report No.	Date	Rslts(1)
16HPCS(1)-7	ELL TO PIPE	HPCS-202	01	VOL	R15-025	5/1/01	А
16HPCS(1)-27	PIPE TO ELL	HPCS-202	04	SUR	2HPM-010	5/2/01	A
16HPCS(1)-27	PIPE TO ELL	HPCS-202	04	VOL	R15-024	5/2/01	A
16LPCS(1)-8	ELL TO PIPE	LPCS-202	01	SUR	2LPM-008	5/10/01	A
16LPCS(1)-8	ELL TO PIPE	LPCS-202	01	VOL	R15-027		
12LPCS(3)-5	VLV TO PIPE	LPCS-202	03	SUR	2LPM-007	5/10/01 5/10/01	A
12LPCS(3)-5	VLV TO PIPE	LPCS-202	03	VOL	R15-005		A
12LPCS(3)-6	PIPE TO ELL	LPCS-202	03	SUR		5/10/01	A
12LPCS(3)-6	PIPE TO ELL	LPCS-202	03	VOL	2LPM-006 R15-006	5/10/01	A
16LPCS(1)-27	ELL TO PIPE	LPCS-202	04	SUR	2LPM-005	5/10/01 5/9/01	A
16LPCS(1)-27	ELL TO PIPE	LPCS-202	04	VOL	R15-026	5/9/01	A
6RCIC(1)-61A	PIPE TO VALVE	RCIC-205	02	SUR	2RIM-015		A
6RCIC(1)-62A	VALVE TO PIPE	RCIC-205	02	SUR		5/29/01	A
6RCIC(1)-88	PIPE TO ELL	RCIC-205	05	SUR	2RIM-015	5/29/01	A
6RCIC(1) -88	PIPE TO ELL	RCIC-205	05		2RIM-011	5/3/01	A
6RCIC(1)-99	ELL TO PIPE	RCIC-205	06	VOL	R15-088	5/3/01	A
6RCIC(1)-99	ELL TO PIPE			SUR	2RIM-010	5/3/01	A
6RCIC(1)-105	PIPE TO ELBOW	RCIC-205	06	VOL	R15-089	5/3/01	A
6RCIC(1)-105		RCIC-205	6A	SUR	2RIM-009	5/3/01	A
	PIPE TO ELBOW	RCIC-205	6A	VOL	R15-087	5/3/01	А
6RCIC(22)-10	ELL TO TEE	RCIC-205	07	SUR	2RIM-012	5/4/01	А
6RCIC(22)-10	ELL TO TEE	RCIC-205	07	VOL	R15-090	5/4/01	A
20RHR (1) A-2	PIPE TO NOZZLE	RHR-201	03	SUR	2RHM-050	4/18/01	А
20RHR(1)A-2	PIPE TO NOZZLE	RHR-201	03	VOL	R15-038	4/19/01	А
18RHR(11)A-1	TEE TO PIPE	RHR-201	05	SUR	2RHM-044	4/17/01	Α
18RHR (11) A-1	TEE TO PIPE	RHR-201	05	VOL	R15-033	4/23/01	А
18RHR(11)A-14	PIPE TO TEE	RHR-201	05	SUR	2RHM042	4/18/01	Α
18RHR(11)A-14	PIPE TO TEE	RHR-201	05	VOL	R15-034	4/23/01	А
20RHR(1)A-6	PIPE TO REDUCER	RHR-201	06	SUR	2RHM-043	4/17/01	Α
20RHR(1)A-6	PIPE TO REDUCER	RHR-201	06	AOF	R15-039	4/20/01	A
18RHR(1)A-47	PIPE TO TEE	RHR-201	07	SUR	2RHM-047	4/18/01	A
18RHR(1)A-47	PIPE TO TEE	RHR-201	07	VOL	R15-031	4/23/01	А
18RHR(1)A-54	PIPE TO TEE	RHR-201	07	SUR	2RHM-037	4/19/01	А
18RHR(1)A-54	PIPE TO TEE	RHR-201	07	VOL	R15-032	4/20/01	Α
14RHR(1)A-13	ELL TO PIPE	RHR-201	10	SUR	2RHM-041	4/19/01	A
14RHR(1)A-13	ELL TO PIPE	RHR-201	10	VOL	R15-021	4/20/01	А
14RHR(1)A-18	PIPE TO ELL	RHR-201	10	SUR	2RHM-039	4/19/01	A
14RHR(1)A-18	PIPE TO ELL	RHR-201	10	VOL	R15-022	4/20/01	А
14RHR(1)A-21	ELL TO PIPE	RHR-201	10	SUR	2RHM-040	4/18/01	А
14RHR(1)A-21	ELL TO PIPE	RHR-201	10	VOL	R15-023	4/20/01	А
18RHR(4)A-8	PIPE TO ELL	RHR-203	01	SUR	2RHM-046	4/18/01	А
18RHR(4)A-8	PIPE TO ELL	RHR-203	01	VOL	R15-035	4/23/01	А
20RHR (2) A-7	ELL TO PIPE	RHR-205	01	SUR	2RHM-048	4/18/01	А
20RHR(2)A-7	ELL TO PIPE	RHR-205	01	VOL	R15-040	4/19/01	A
24RHR(3)-17	FLANGE TO ELL	RHR-211	0.3	SUR	2RHM-057	4/30/01	A
24RHR(3)-17	FLANGE TO ELL	RHR-211	03	VOL	R15-048	4/30/01	A
Item Number: C5.81						.,	
1/17/2011 2/2/20211 2	DOTHAL GOVE						
16LPCS(1)-2/6LPCS(4)-2	BRANCH CONN	LPCS-202	01	SUR	2LPM-009	5/10/01	А
16LPCS(1)-2/6LPCS(4)+2	BRANCH CONN	LPCS-202	01	VOL	R15-120	5/10/01	А
Examination Category: C-G Item Number: C6.10							
HPCS-P-1C-4	DMD CAR/CID WIN	unce one	0.1	cup	2015M 000	11/14/00	n
HPCS-P-1C-5	PMP CAS/CIR WLD PMP CAS/CIR WLD	HPCS-206	01	SUR	2HFM-008	11/14/00	
HPCS-P-1C-5 HPCS-P-1C-6		HPCS-206	01	SUR	2HPM-008	11/14/00	
	PMP CAS/CIR WLD	HPCS-206	01	SUR	2HPM-008	11/14/00	
HPCS-P-1N-3	PMP NOZZLE WELD	HPCS-206	01	SUR	2HPM-008	11/14/00	А

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Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
Examination Category: C-H Item Number: C7.30							
CRD-PB-201(L) CRD-PB-202(L) HPCS-PB-201(L)	LK PRES BNDRY LK PRES BNDRY LK PRES BNDRY	CRD-201 CRD-202 HPCS-201		VT-2 VT-2 VT-2	2CRV-007 2CRV-007 2HPV-003	5/19/01 5/19/01 7/6/00	A A A
HPCS-PB-202(L) RCC-PB-201(L) RCC-PB-202(L)	LK PRES BNDRY LK PRES BNDRY LK PRES BNDRY	HPCS-202 RCC-201 RCC-202		VT-2 VT-2 VT-2	2HPV-003 2RCV-02 2RCV-01	7/6/00 6/19/01 6/19/01	A A A
RHR-PB-201(L) RHR-PB-202(L) RHR-PB-203(L)	LK PRES BNDRY LK PRES BNDRY LK PRES BNDRY	RHR-201 RHR-202 RHR-203		VT-2 VT-2 VT-2	2RHV-016 2RHV-016 2RHV-016	12/13/99 12/13/99 12/13/99	Α
RHR-PB-204(L) RHR-PB-205(L) RHR-PB-206(L)	LK PRES BNDRY LK PRES BNDRY LK PRES BNDRY	RHR-204 RHR-205 RHR-206	02	VT-2 VT-2 VT-2	2RHV-016 2RHV-016 2RHV-016	12/13/99 12/13/99 12/13/99	A A
RHR-PB-207(L) RHR-PB-208(L) RHR-PB-209(L)	LK PRES BNDRY LK PRES BNDRY LK PRES BNDRY	RHR-207 RHR-208 RHR-209	02	VT-2 VT-2 VT-2	2RHV-017 2RHV-017 2RHV-017	12/20/99 12/20/99 12/20/99	A A
RHR-PB-210(L) RHR-PB-211(L)	LK PRES BNDRY LK PRES BNDRY	RHR-210 RHR-211		VT-2 VT-2	2RHV-018 2RHV-018	12/20/99 12/20/99	А
Examination Category D-B Item Number: D2.20							
SW-154(W) SW-129(W) SW-128(W) SW-8(W)	WELDED ATTACH WELDED ATTACH WELDED ATTACH WELDED ATTACH	SW-303 SW-303 SW-303 SW-303	01 06 06 07	VT-3 VT-3 VT-3 VT-3	2SWV-015 2SWV-014 2SWV-013 2SWV-017	4/19/01 4/19/01 4/19/01 4/19/01	A A A
SW-35(W) SW-124(W)	WELDED ATTACH WELDED ATTACH	SW-305 SW-301	02 06	VT-3 VT-3	2SWV-018 2SWV-016	4/24/01 4/19/01	A A
Examination Category: E-A Item Number: E1.11							
SHELL-471-0-G SHELL-471-90-G SHELL-471-180-G	SHELL 0-90 SHELL 90-180 SHELL 180-270	CONT-471 CONT-471 CONT-471	01 02 03	GV GV GV	2CNV-03 2CNV-03 2CNV-03	5/29/01 5/29/01 5/29/01	A A A
SHELL-471-270-G SHELL-501-0-G SHELL-501-90-G	SHELL 270-360 SHELL 0-90 SHELL 90-180	CONT-471 CONT-501 CONT-501	04 01 02	GV GV GV	2CNV-03 2CNV-03 2CNV-03	5/29/01 5/28/01 5/28/01	A A A
SHELL-501-180-G SHELL-501-270-G SHELL-522-0-G	SHELL 180-270 SHELL 270-360 SHELL 0-90	CONT-501 CONT-501 CONT-522	03 04 01	GV GV GV	2CNV-03 2CNV-03 2CNV-03	5/28/01 5/28/01 5/28/01	A A A
SHELL-522-90-G SHELL-522-180-G SHELL-522-270-G SHELL-548-0-G	SHELL 90-180 SHELL 180-270 SHELL 270-360 SHELL 0-90	CONT-522 CONT-522 CONT-522 CONT-548	02 03 04 01	GV GV GV	2CNV-03 2CNV-03 2CNV-03 2CNV-03	5/28/01 5/28/01 5/28/01 5/28/01	A A A
SHELL-548-90-G SHELL-548-180-G SHELL-548-270-G	SHELL 90-180 SHELL 180-270 SHELL 270-360	CONT-548 CONT-548 CONT-548	02 03 04	GV GV	2CNV-03 2CNV-03 2CNV-03	5/28/01 5/28/01 5/28/01	A A A
SHELL-572-0-G SHELL-572-90-G SHELL-572-180-G SHELL-572-270-G	SHELL 0-90 SHELL 90-180 SHELL 180-270 SHELL 270-360	CONT-572 CONT-572 CONT-572 CONT-572	01 02 03 04	GV GV GV	2CNV-03 2CNV-03 2CNV-03 2CNV-03	6/14/01 6/14/01 6/14/01 6/14/01	A A A
Examination Category: F-A Item Number: F1.10A							
MS-2619-14 MS-2619-311 MS-2619-313	STRUT STRUT STRUT	MS-106 MS-106 MS-106	01 03 03	VT-3 VT-3 VT-3	2HV-0247 2HV-0253 2HV-0252	5/25/01 5/26/01 5/26/01	A A A

1. Owner: Energy Northwest, 3000 George Washington Way, PO Box 968, Richland, Washington 99352

2. Plant: Columbia Generating Station, Hanford Reservation, Benton County, Washington

3. Plant Unit: Columbia Generating Station

4. Owner Certificate of Authorization: NA
5. Commercial Service Date: 12/13/84

6. National Board Number: NA

Identification No.	Description	Diagram No.	₽g.	Method	Report No.	Date	Rslts(1)
MS-2619-314	STRUT	MS-106	03	VT-3	2HV-0251	5/26/01	7
RCIC-1C-13	RIGID STRUT	RCIC-101	02	VT-3	2HV-0231 2HV-0271	5/30/01	A A
RCIC-1C-2	RIGID STRUT	RCIC-101	03	VT-3	2HV-0272	5/30/01	A
RWCU-1C-4PS	STRUT	RWCU-101	03	VT-3	2HV-0272	5/28/01	Ā
SLC-4453-44	RIGID	SLC-101	03	VT-3	2HV-0186	5/2/01	Ä
SLC-4453-45	RIGID	SLC-101	03	VT-3	2HV-0187	5/2/01	Ā
SLC-4453-46	RIGID	SLC-101	03	VT-3	2HV-0187	5/2/01	A
SLC-4453-55	RIGID	SLC-101	04	VT-3	2HV-0188		
SLC-4453-56	RIGID	SLC-101	04	VT-3		5/2/01	A
SLC-4453-57	RIGID	SLC-101			2HV-0190	5/2/01	A
SLC-4453-63			04	VT-3	2HV-0191	5/2/01	A
	RIGID	SLC-101	04	VT-3	2HV-0192	5/2/01	A
SLC-4453-65	RIGID	SLC-101	04	VT-3	2HV-0193	5/2/01	A
SLC-4475-18	RIGID	SLC-101	05	VT-3	2HV-0209	5/22/01	А
Item Number: F1.10B							
RFW-159	SPRING	RFW-101	03	VT-3	2HV-0269	5/29/01	А
Item Number: F1.10C							
MS-HC-1	SPRING	MS-103	01	VT-3	2HV-0258	5/28/01	А
RCIC-61	SPRING	RCIC-101	02	VT-3	2HV-0270	5/30/01	A
RFW-152	SPRING	RFW-101	03	VT-3	2HV-0268	5/29/01	A
RRC-11	SPRING	RHR-104		VT-3	2HV-0265	5/29/01	A
RRC-HA-1	SPRING	RRC-101	01	VT-3	2HV-0221	5/24/01	A
RRC-HA-9	SPRING	RRC-101	03	VT-3	2HV-0223	5/24/01	A
RRC-HA-8	SPRING	RRC+101	03	VT-3	2HV-0222	5/24/01	A
RWCU-139	SPRING	RWCU-101	04	VT-3	2HV-0260	5/28/01	Â
10000 200	ST KING	MC0-101	04	V1-3	2HV-0200	3728701	^
Item Number: F1.10D							
LPCS-28	PSA-3 SNUBBER	LPCS-101	01	VT-3	2HV+0285	5/29/01	А
MS-1369-12	PSA-1/2 SNUBBER	MS-105	03	VT-3	2HV-0287	5/26/01	A
RCIC-1C-9	PSA-10 SNUBBER	RCIC-101	01	VT-3	2HV-0275	6/2/01	A
RFW-151	PSA-35 SNUBBER	RFW-101	03	VT-3	2HV-0273	5/29/01	A
RHR-SA-32	PSA-10 SNUBBER	RHR-105	03				
RWCU-1C-17			0.1	VT-3	2HV-0286	5/26/01	A
	PSA-1 SNUBBER	RWCU-101	01	VT-3	2HV-0259	5/28/01	A
RWCU-1C-3	PSA-3 SNUBBER	RWCU-101	04	VT-3	2HV-0266	5/28/01	А
Item Number: F1.20A							
HPCS-21	RIGID	HPCS-202	01	VT-3	2HV-0182	5/1/01	А
HPCS-26	STRUT	HPCS-202	04	VT-3	2HV-0184	5/1/01	Ā
LPCS-19	ANCHOR	LPCS-202	04	VT-3	2HV-0104 2HV-0207	5/10/01	A
LPCS-42	BOX	LPCS-202	04	VT-3	2HV-0207	5/10/01	
MS-179	STRUT						A
		MS-202	03	VT-3	2HV-0215	5/23/01	A
MS-150	STRUT	MS-202	03	VT-3	2HV-0218	5/23/01	A
MS-68	STRUT	MS-204	02	VT-3	2HV-0263	5/29/01	A
MS-1010N	STRUT	MS-204	02	VT-3	2HV-0220	5/24/01	R(6)
MS-1010N	STRUT	MS-204	02	VT-3	2HV-0284	6/5/01	А
MS-65	STRUT	MS-204	02	VT-3	2HV-0248	5/26/01	А
MS-906N	STRUT	MS-204	02	VT-3	2HV-0237	5/25/01	А
MS-61	STRUT	MS-204	02	VT-3	2HV-0243	5/25/01	A
MS-1009N	RIGID	MS-204	02	VT-3	2HV-0153	7/2/00	А
MS-1009N	RIGID	MS-204	02	VT-3	2HV-0244	5/25/01	А
MS-59	STRUT	MS-204	02	VT-3	2HV-0246	5/25/01	А
MS-182	ROD	MS-205		VT-3	2HV-0241	5/25/01	A
RCIC-946N	STRUT	RCIC-201	01	VT-3	2HV-0202	5/4/01	А
RCIC-11	BOX	RCIC-205	02	VT-3	2HV-0194	5/4/01	А
RCIC-955N	BOX	RCIC-205	05	VT-3	2HV-0204	5/4/01	А
RCIC-954N	BOX	RCIC-205	05	VT-3	2HV-0203	5/4/01	А

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Ident:	ification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
RCIC-8	38	вох	RCIC-205	06	VT-3	2HV-0197	5/4/01	70
RCIC-9		BOX	RCIC-205	6A	VT-3	2HV-0198		A
RCIC-S		STRUT	RCIC-205	6A	VT-3		5/4/01	A
RCIC-9		STRUT	RCIC-205	6A	VT-3	2HV-0199	5/4/01	A
RHR-15		STRUT	RHR-201	01		2HV-0200	5/4/01	A
RHR-36		STRUT			VT-3	2HV-0165	4/16/01	A
RHR-10			RHR-201	05	VT-3	2HV-0161	4/12/01	A
RHR-24		PIPE CLAMP BOX	RHR-201	07	VT-3	2HV-0159	4/12/01	A
RHR-96			RHR-201	10	VT-3	2HV-0167	4/17/01	А
RHR-24		ANCHOR	RHR-201	10	VT-3	2HV-0168	4/17/01	А
		BOX	RHR-201	11	VT-3	2HV-0173	4/17/01	Α
RHR-59	97	STRUT	RHR-204	02	VT-3	2HV-0164	4/13/01	А
Item N	Number: F1.20B							
RHR-36	53	SPRING	RHR-201	05	VT-3	2HV-0162	4/12/01	А
RHR-48	36	SPRING	RHR-207	10	VT-3	2HV-0180	4/25/01	A.
		DININO	KIIK 201	10	V1-3	287-0100	4/23/01	A
	Number: F1.20C							
HPCS-2	23	SPRING	HPCS-202	01	VT-3	2HV-0183	5/1/01	Α
LPCS-9	9	SPRING	LPCS-202	01	VT-3	2HV-0208	5/10/01	A
MS-178	3	SPRING	MS-202	03	VT-3	2HV-0216	5/23/01	A
MS-149	•	SPRING	MS-202	03	VT-3	2HV-0219	5/23/01	A
MS-30		SPRING	MS-203	03	VT-3	2HV-0239	5/25/01	A
MS-66		SPRING	MS-204	02	VT-3	2HV-0264	5/29/01	A
MS-63		SPRING	MS-204	02	VT-3	2HV-0250	5/25/01	A
MS-62		SPRING	MS-204	02	VT-3	2HV-0262	5/29/01	A
RCIC-3	31	SPRING	RCIC-205	01	VT-3	2HV-0195	5/4/01	Ä
RCIC-8		SPRING	RCIC-205	06	VT-3	2HV-0195	5/4/01	A
RHR-26		SPRING	RHR-201	11	VT-3	2HV-0196 2HV-0172		
RHR-53		SPRING	RHR-201	08	VT-3	2HV-0172 2HV-0181	4/17/01	A
		DIMINO	KHK-207	00	V1-3	2HV=0181	4/25/01	A
Item N	lumber: F1.20D							
HPCS-4	.7	PSA-3 SNUBBER	HPCS-201	02	VT-3	2HV-0185	5/1/01	А
MS-998	IN .	PSA-10 SNUBBER	MS-202	02	VT-3	2HV-0242	5/24/01	A
MS-162		PSA-10 SNUBBER	MS-202	02	VT-3	2HV-0288	5/28/01	A
MS-151		PSA-3 SNUBBER	MS-202	03	VT-3	2HV-0217	5/23/01	A
MS-148		PSA-10 SNUBBER	MS-202	03	VT-3	2HV-0289	5/28/01	A
RCIC-9		PSA-10 SNUBBER	RCIC-201	01	VT-3	2HV-0201	5/4/01	Ä
RCIC-1		PSA-1/2 SNUBBER	RCIC-205	6A	VT-3	2HV-0201 2HV-0205	5/4/01	A
RHR-14		PSA-1 SNUBBER	RHR-201	04	VT-3	2HV-0203 2HV-0166		
RHR-36		PSA-3 SNUBBER	RHR-201	05	VT-3		4/16/01	A
RHR-27		PSA-3 SNUBBER	RHR-201	03		2HV-0163	4/12/01	A
RHR-23		PSA-10 SNUBBER			VT-3	2HV-0160	4/12/01	A
RHR-10			RHR-201	08	VT-3	2HV-0174	4/18/01	A
RHR-10		PSA-35 SNUBBER	RHR-201	11	VT-3	2HV-0169	4/17/01	А
RHR-26		PSA-35 SNUBBER	RHR-201	11	VT-3	2HV-0170	4/17/01	A
		PSA-10 SNUBBER	RHR-201	11	VT-3	2HV-0171	4/17/01	А
Item N	umber: F1.30A							
FPC-90		RIGID	FPC-301	08	VT-3	2HV-0156	3/5/01	А
FPC-40		STRUT	FPC-301	80	VT-3	2HV-0157	3/5/01	А
FPC-11	8	RIGID	FPC-306		VT-3	2HV-0155	3/5/01	A
MSH-29		RIGID	MS-210	01	VT-3	2HV-0274	5/30/01	A
MSH-30		RIGID	MS-210	02	VT-3	2HV-0273	5/30/01	A
RCC-90	8N	BOX	RCC-301	03	VT-3	2HV-0214	5/22/01	A
RCC-27		BOX	RCC-301	03	VT-3	2HV-0211	5/22/01	A
RCC-28		ANCHOR	RCC-301	03	VT-3	2HV-0211 2HV-0212	5/22/01	A
RCC-28		STRUT	RCC-301	03	VT-3			
SW-154	~	STRUT	SW-303	01	VT-3 VT-3	2HV-0213	5/22/01	A
· :134		DINOI	5W-303	ΟŢ	V 1 - 3	2HV-0176	4/19/01	А

1. Owner: Energy Northwest, 3000 George Washington Way, PO Box 968, Richland, Washington 99352

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4. Owner Certificate of Authorization: NA

**5**. **Commercial Service Date:** 

6. National Board Number: NA

#### 13. Abstract of Examinations and Tests (continued):

Identification No.	Description	Diagram No.	₽g.	Method	Report No.	Date	Rslts(1)
SW-129	BOX	SW-303	06	VT-3	2HV-0178	4/19/01	А
SW-128	BOX	SW-303	06	VT-3	2HV-0177	4/19/01	А
SW-8	BOX	SW-303	07	VT-3	2HV-0175	4/19/01	А
SW-35	STRUT	SW-305	02	VT-3	2HV-0179	4/24/01	А
Item Number: F1.30C							
FPC-41	SPRING	FPC-301	08	VT-3	2HV-0158	3/5/01	А
MS-276	SPRING	MS-304	01	VT-3	2HV-0254	5/27/01	А
MS-293	SPRING	MS-310	01	VT-3	2HV-0255	5/27/01	А
RCC-274	SPRING	RCC-301	03	VT-3	2HV-0210	5/22/01	А
Item Number F1.30D							
FPC-65	PSA-1 SNUBBER	FPC-301	04	VT-3	2HV-0154	3/5/01	А
MSRV-4A-2	PSA-10 SNUBBER	MS-304	01	VT-3	2HV-0257	5/27/01	Α
MSRV-2B-3	PSA-35 SNUBBER	MS-306	01	VT-3	2HV-0256	5/27/01	А
Item Number: F1.40A							
RRC-900N	STRUT	RRC-103		VT-3	2HV-0224	2/25/01	А
RRC-RA-1	STRUT	RRC-103		VT-3	2HV+0225	5/25/01	А
RRC-901N	STRUT	RRC-103		VT-3	2HV-0232	5/25/01	А
Item Number: F1.40B							
RRC-HA-4	SPRING	RRC-103		VT-3	2HV-0226	5/25/01	А
RRC+HA-5	SPRING	RRC-103		VT-3	2HV-0227	5/25/01	А
RRC-HB-2	SPRING	RRC-103		VT-3	2HV-0236	5/25/01	А
RRC-HB-3	SPRING	RRC-103		VT-3	2HV-0235	5/25/01	А
RRC-HB-4	SPRING	RRC-103		VT-3	2HV-0234	5/25/01	А
RRC-HB-5	SPRING	RRC-103		VT-3	2HV-0233	5/25/01	А
Item Number: F1.40D							
RRC+SA-3	PSA-100 SNUBBER	RRC-103		VT-3	2HV-0231	5/25/01	А
RRC-SA-4	PSA-100 SNUBBER	RRC-103		VT-3	2HV-0230	5/25/01	А
RRC-SA-5	PSA-100 SNUBBER	RRC-103		VT-3	2HV-0229	5/25/01	А
RRC-SA-6	PSA-100 SNUBBER	RRC-103		VT-3	2HV-0228	5/25/01	А

Notes to section 13 "Abstract of Examinations and Tests"

A = Acceptable R = Rejectable

<sup>(2)</sup> 

One stud to RPV head vent flange connection was galled Unacceptable dye penetrant indication on lug to RRC-P-1A welds (3)

RCIC-V-63 found leaking at plugged leak off connection (4)

<sup>(5)</sup> RFW-V-32B found leaking on actuator side of valve.

One strut on component support MS-1010N had a cracked weld (6)

<sup>-</sup> END OF REPORT-

# APPENDIX B

### **NIS-2 OWNER'S REPORTS**

This appendix summarizes ASME Section XI repair or replacement work performed between October 15, 1999 and July 02, 2001. The status of the NIS-2 Owner's Report is stated for each repair and replacement work performed.

#### 8/27/2001

# ASME SECTION XI REPAIR AND REPLACEMENT LISTING FOR COLUMBIA GENERATING STATION REFUELING OUTAGE RF01

PLAN NO	WOT NO	COMPONENT NUMBER AND WORK DESCRIPTION	CODE COMP	R&R REPORTED IN
2-0980 *	HJV 903	Prefabricated - Modified connection with valve LPCS-V-83	Piping	RF01 Summary Report
2-0980 *	HJS 704	Installed - Modified connection with valve LPCS-V-83	Piping	RF01 Summary Report
2-1431 *	1008388 01	Replaced plug for valve RCIC-PCV-15	Valve	RF01 Summary Report
2-1486 *	HJW 003	Prefabricated - Modified connection with valve HPCS-V-102	Piping	RF01 Summary Report
2-1486 *	HLW 304	Installed - Modified connection with valve HPCS-V-102	Piping	RF01 Summary Report
2-1548 *	1017642 02	Prefabricated - Modified connection with valves RCIC-V-604 and RCIC-V-621	Piping	RF01 Summary Report
2-1548 *	1017642 01	Installed - Modified connection with valves RCIC-V-604 and RCIC-V-621	Piping	RF01 Summary Report
2-1568	1025097 01	Recriented valve MS-V-20	Piping	RF01 Summary Report
2-1597 *	KWX 301	Replaced valve RCC-V-610	Piping	RF01 Summary Report
2-1633 *	1014349 01	Prefabricated - Replaced valve CAS-V-326A for CAS supply to valve MS-V-28A	Tubing	RF01 Summary Report
2-1633 *	LWK 202	Installed - Replaced valve CAS-V-326A for CAS supply to valve MS-V-28A	Tubing	RF01 Summary Report
2-1634 *	1014349 01	Prefabricated - Replaced valve CAS-V-326B for CAS supply to valve MS-V-28B	Tubing	RF01 Summary Report
2-1634 *	LWK 203	Installed - Replaced valve CAS-V-326B for CAS supply to valve MS-V-28B	Tubing	RF01 Summary Report
2-1635 *	1014349 01	Prefabricated - Replaced valve CAS-V-326C for CAS supply to valve MS-V-28C	Tubing	RF01 Summary Report
2-1635 *	LWK 204	Installed - Replaced valve CAS-V-326C for CAS supply to valve MS-V-28C	Tubing	RF01 Summary Report
2-1636 *	1014349 01	Prefabricated - Replaced valve CAS-V-326D for CAS supply to valve MS-V-28D	Tubing	RF01 Summary Report
2-1636 *	LWK 205	Installed - Replaced valve CAS-V-326D for CAS supply to valve MS-V-28D	Tubing	RF01 Summary Report
2-1647	1007828 01	Replaced snubbers with rigid struts for supports RHR-325, 326, 332, 333	Supports	RF01 Summary Report
2-1648	1007828 01	Replaced snubbers with rigid struts for supports RHR-442, 443, 448, 453	Supports	RF01 Summary Report
2-1656	1009801 13	Fabricated tube plugs for heat exchanger RHR-HX-1A	Heat Exchanger	RF01 Summary Report
2-1663	1016343 01	Replaced rupture disc for CCH-RD-1A	Piping	RF01 Summary Report
2-1666	1003729 01	Replaced cap screw for end cover plate for valve SW-V-170B	Valve	RF01 Summary Report
2-1667 *	00RSJ 901	Replaced tubing material for air supply lines to valves RCIC-V-4, 25 and 54	Tubing	RF01 Summary Report
2-1668 *	00PWS 201	Replaced isolation valve associated with instrument RHR-PI-2B	Tubing	RF01 Summary Report
2-1669	1002491 01	Modified spare nozzles for Main Steam Relief Valves (MSRV's)	Relief Valves	RF01 Summary Report
2-1670	1028932 01	Installed new replacement stuffing box for valve RFW-V-32B	Valve	RF01 Summary Report
2-1671 2-1673 *	1007051 01	Replaced valve SLC-V-16	Piping	RF01 Summary Report
2-1673 *	1006533 01	Replaced valve HPCS-V-39	Piping Valve	RF01 Summary Report
2-1674	1024764 15 1004098 02	Seal welded bonnet leak off connection for valve RCIC-V-63 Replaced valve SW-V-2A	Valve Valve	RF01 Summary Report
2-1675	1004096 02	Modified outlet flange for spare valve Serial No 138433-1-1 (LPCS-RV-18)	Relief Valve	RF01 Summary Report RF01 Summary Report
2-1676	1009093 01	Replaced relief valve LPCS-RV-18	Piping	RF01 Summary Report
2-1678	1009043 03	Modified outlet flange for spare valve Serial No 97-16626 (HPCS-RV-35)	Relief Valve	RF01 Summary Report
2-1679	1009563 01	Replaced relief valve HPCS-RV-35	Piping	RF01 Summary Report
2-16/9	1009365 01	Replaced Local Power Range Monitoring (LPRM) in core assembly	RPV	RF01 Summary Report
2-1684	1008058 01	Replaced relief valve SLC-RV-29A	Piping	RF01 Summary Report
2-1685	1008055 01	Replaced relief valve SLC-RV-29B	Piping	RF01 Summary Report
2-1686	1008949 01	Replaced relief valve RHR-RV-25B	Piping	RF01 Summary Report
2-1688	1009042 01	Replaced relief valve RHR-RV-5	Piping	RF01 Summary Report
2-1689	00PNX2 01	Replaced relief valve CIA-RV-5A	Piping	RF01 Summary Report
2-1690	00PNX2 02	Replaced relief valve CIA-RV-5B	Piping	RF01 Summary Report
2-1692	1011447 01	Modified spare nozzles for Main Steam Relief Valves (MSRV's)	Relief Valves	RF01 Summary Report
2-1693	1013003 04	Repaired corroded areas on channel cover plate for DCW-HX-1B2	Heat Exchanger	RF01 Summary Report
2-1694	1013003 06	Replaced studs and nuts for DCW-HX-1B2	Heat Exchanger	RF01 Summary Report
2-1695	1013016 01	Replaced gate valve RCIC-V-12 with nozzle check valve RCIC-V-90	Piping	RF01 Summary Report
2-1696	1021068 01	Prefabricated piping for relief valve RCIC-RV-3	Piping	RF01 Summary Report
2-1696	1013016 01	Installed piping for relief valve RCIC-RV-3	Piping	RF01 Summary Report
2-1697 *	1021068 01	Prefabricated tubing for instruments RCIC-PIS-1, 34 and RCIC-PI-16	Tubing	RF01 Summary Report
2-1697 *	1013016 01	Installed tubing for instruments RCIC-PIS-1, 34 and RCIC-PI-16	Tubing	RF01 Summary Report
2-1698	C 31331	Refurbished MSRV S/N N63790-03-0045	Relief Valve	RF01 Summary Report
2-1699	C 31331	Refurbished MSRV S/N N63790-03-0047	Relief Valve	RF01 Summary Report
2-1700	C 31331	Refurbished MSRV S/N N63790-03-0048	Relief Valve	RF01 Summary Report
2-1701	C 31331	Refurbished MSRV S/N N63790-03-0053	Relief Valve	RF01 Summary Report
2-1702	C 31331	Refurbished MSRV S/N N63790-03-0057	Relief Valve	RF01 Summary Report
2-1703	C 31331	Refurbished MSRV S/N N63790-03-0061	Relief Valve	RF01 Summary Report
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# ASME SECTION XI REPAIR AND REPLACEMENT LISTING FOR COLUMBIA GENERATING STATION REFUELING OUTAGE RF01

PLAN NO	ON TOW	COMPONENT NUMBER AND WORK DESCRIPTION	CODE COMP	R&R REPORTED IN
2-1704	C 31331	Refurbished MSRV S/N N63790-03-0124	Relief Valve	RF01 Summary Report
2-1705	C 31331	Refurbished MSRV S/N N63790-03-0136	Relief Valve	RF01 Summary Report
2-1706	C 31331	Refurbished MSRV S/N N63790-03-0137	Relief Valve	RF01 Summary Report
2-1707	C 31331	Refurbished MSRV S/N N63790-03-0140	Relief Valve	RF01 Summary Report
2-1708	1004771 01	Replaced existing relief valve MS-RV-4B with spare S/N N63790-03-0137	Piping	RF01 Summary Report
2-1709	1004770 01	Replaced existing relief valve MS-RV-2C with spare S/N N63790-03-0048	Piping	RF01 Summary Report
2-1710	1004868 01	Replaced existing relief valve MS-RV-3C with spare S/N N63790-03-0124	Piping	RF01 Summary Report
2-1711	1019558 01	Replaced existing relief valve MS-RV-1A with spare S/N N63790-03-0047	Piping	RF01 Summary Report
2-1712	1016267 02	Replaced existing relief valve MS-RV-3B with spare S/N N63790-03-0053	Piping	RF01 Summary Report
2-1713	1018572 01	Replaced existing relief valve MS-RV-1C with spare S/N N63790-03-0045	Piping	RF01 Summary Report
2-1714	1019283 02	Replaced existing relief valve MS-RV-4D with spare S/N N63790-03-0061	Piping	RF01 Summary Report
2-1715	1016270 01	Replaced existing relief valve MS-RV-1B with spare S/N N63790-03-0140	Piping	RF01 Summary Report
2-1716	1004930 01	Replaced existing relief valve MS-RV-5C with spare S/N N63790-03-0136	Piping	RF01 Summary Report
2-1717 *	1014211 01	On-line leak sealed stuffing box for valve RFW-V-32A	Valve	RF01 Summary Report
2-1718	1012661 01	Replaced relief valve RCiC-RV-19T	Piping	RF01 Summary Report
2-1719	1015780 01	Replaced end brackets for support MS-1009N	Piping	RF01 Summary Report
2-1720	1013018 10	Prefabricated - Modified new replacement stuffing box for valve RFW-V-32A	Valve	RF01 Summary Report
2-1720	1013018 01	Installed - Installed new replacement stuffing box for valve RFW-V-32A	Valve	RF01 Summary Report
2-1723	1021068 01	Prefabricated piping for pump RCIC-P-3	Piping	RF01 Summary Report
2-1723	1013016 01	Installed piping for pump RCIC-P-3	Piping	RF01 Summary Report
2-1732 *	1012711 01	Prefabricated external bypass for pressure locking for valve RCIC-V-31	Piping	RF01 Summary Report
2-1732 *	1012712 01	Installed external bypass for pressure locking for valve RCIC-V-31	Piping	RF01 Summary Report
2-1733 *	1012714 01	Prefabricated external bypass for pressure locking for valve HPCS-V-12	Piping	RF01 Summary Report
2-1733 *	1012715 01	Installed external bypass for pressure locking for valve HPCS-V-12	Piping	RF01 Summary Report
2-1734	1012713 01	Modified wedge for valve HPCS-V-4	Valve	RF01 Summary Report
2-1735	1013043 01	Replaced parts for valve SLC-V-4B	Valve	RF01 Summary Report
2-1736	1009119 06	Replaced relief valve CAC-RV-63B	Piping	RF01 Summary Report
2-1737	1017547 01	Replaced mechanical seal for pump RRC-P-1A	Pump	RF01 Summary Report
2-1738	1017775 01	Replaced mechanical seal for pump RRC-P-1B	Pump	RF01 Summary Report
2-1741	1023233 01	Assembled mechanical seal for RRC pumps	Pump	RF01 Summary Report
2-1742	1023228 01	Replaced mechanical seal for pump RRC-P-1A	Pump	RF01 Summary Report
2-1746	1009095 07	Modified outlet flange for spare valve Serial No 138433-1-1 (LPCS-RV-18)	Relief Valve	RF01 Summary Report
2-1747	1025933 06	Repaired (weld built up) outboard end cover plate for pump RCIC-P-1	Pump	RF01 Summary Report
2-1749	1008950 08	Replaced nozzle for relief valve RHR-RV-25C, Serial No 509258-75-1	Relief Valve	RF01 Summary Report
2-1750	1022702 01	Replaced studs and nuts for DCW-HX-1B2	Heat Exchanger	RF01 Summary Report
2-1751	1016303 11	Weld repaired corroded (pitted) areas down stream of valve SW-V-2B	Piping	RF01 Summary Report
2-1752	1028064 01	Removed PT indication from lug weld for pump RRC-P-1A	Pump	RF01 Summary Report
2-1754	1022700 01	Replaced studs and nuts for DCW-HX-1A1	Heat Exchanger	RF01 Summary Report
2-1755	1029019 01	Replaced Service Water (SW) pipe piece with through wall leak	Piping	RF01 Summary Report
2-1756	1027971 01	Replaced strut for support MS-1010N (E)	Support	RF01 Summary Report
2-1757	1010861 98	Replaced bolting material for RPV Nozzle N8	Vessel	RF01 Summary Report
2-1758	1025097 15	Replaced disc valve MS-V-20	Valve	RF01 Summary Report
2-1759	1013673 07	Weld repaired corroded (pitted) area down stream of valve SW-V-2A	Piping	RF01 Summary Report
2-1760	1019558 01	Replaced studs and nuts for bolted flanged joint for flex hose CIA-FLX-1J	Piping	RF01 Summary Report
2-1761	10017828 01	Modified snubber transition kit (tube kit) for support RCC-161	Support	RF01 Summary Report
2-1762	1012713 01	Replaced disc for valve HPCS-V-4	Valve	RF01 Summary Report
2-1763	1027889 04	Replaced valve TIP-V-3	Tubing	RF01 Summary Report
2-1764	1009045 12	Replaced base for relief valve LPCS-RV-31	Relief valve	RF01 Summary Report
2-1765	1012715 01	Removed PT indication from body flange area of valve HPCS-V-12	Valve	RF01 Summary Report
2-1766 *	HJS 704	Replaced U bolts associated with valve LPCS-V-84	Support	RF01 Summary Report
N/A	1007828 01	Replaced snubber for support MS-162 (Bottom)	Support	RF01 Summary Report
N/A	1007828 01	Replaced snubber for support MS-148	Support	RF01 Summary Report
N/A	1007828 01	Replaced snubber for support MS-1369-12	Support	RF01 Summary Report
N/A	1007828 01	Replaced snubber for support MD-1285-14C	Support	RF01 Summary Report
N/A	1007828 01	Replaced snubber for support LPCS-28	Support	RF01 Summary Report
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# ASME SECTION XI REPAIR AND REPLACEMENT LISTING FOR COLUMBIA GENERATING STATION REFUELING OUTAGE RF01

PLA	NO WOT NO	COMPONENT NUMBER AND WORK DESCRIPTION	CODE COMP	R&R REPORTED IN
N/A	1007828 01	Replaced snubber for support RHR-SA-32 (East)	Support	RF01 Summary Report
N/A	1007828 01	Replaced snubber for support RCC-150	Support	RF01 Summary Report
N/A	1007828 01	Replaced snubber for support RCC-161	Support	RF01 Summary Report
N/A	1007828 01	Replaced snubber for support RCC-964 (North)	Support	RF01 Summary Report
N/A	1025424 01	Assembled Control Rod Drive (CRD) Serial No A9550	CRD	RF01 Summary Report
N/A	1025424 02	Assembled Control Rod Drive (CRD) Serial No A9478	CRD	RF01 Summary Report
N/A	1025424 03	Assembled Control Rod Drive (CRD) Serial No A9482	CRD	RF01 Summary Report
N/A	1025424 04	Assembled Control Rod Drive (CRD) Serial No A9531	CRD	RF01 Summary Report
N/A	1025424 05	Assembled Control Rod Drive (CRD) Serial No A9552	CRD	RF01 Summary Report
N/A	1025424 06	Assembled Control Rod Drive (CRD) Serial No A9541	CRD	RF01 Summary Report
N/A	1025424 07	Assembled Control Rod Drive (CRD) Serial No A9618	CRD	RF01 Summary Report
N/A	1025424 08	Assembled Control Rod Drive (CRD) Serial No A9535	CRD	RF01 Summary Report
N/A	1025424 09	Assembled Control Rod Drive (CRD) Serial No A9663	CRD	RF01 Summary Report
N/A	1020130 02	Overhauled Control Rod Drive (CRD) Serial No A9155	CRD	RF01 Summary Report
N/A	1020130 03	Overhauled Control Rod Drive (CRD) Serial No A9138	CRD	RF01 Summary Report
N/A	1020130 04	Overhauled Control Rod Drive (CRD) Serial No 6502	CRD	RF01 Summary Report
N/A	1020130 05	Overhauled Control Rod Drive (CRD) Serial No A9505	CRD	RF01 Summary Report
N/A	1020130 06	Overhauled Control Rod Drive (CRD) Serial No 5249	CRD	RF01 Summary Report
N/A	1020130 07	Overhauled Control Rod Drive (CRD) Serial No 7305	CRD	RF01 Summary Report
N/A	1020130 08	Overhauled Control Rod Drive (CRD) Serial No 7037	CRD	RF01 Summary Report
N/A	1020130 09	Overhauled Control Rod Drive (CRD) Serial No A9157	CRD	RF01 Summary Report
N/A	1020130 10	Overhauled Control Rod Drive (CRD) Serial No 6229	CRD	RF01 Summary Report
N/A	1020130 11	Overhauled Control Rod Drive (CRD) Serial No A9325	CRD	RF01 Summary Report
N/A N/A	1020130 12	Overhauled Control Rod Drive (CRD) Serial No 6595	CRD	RF01 Summary Report
N/A N/A	1020130 13	Overhauled Control Rod Drive (CRD) Serial No A8915	CRD	RF01 Summary Report
	1020130 14	Overhauled Control Rod Drive (CRD) Serial No 6543	CRD	RF01 Summary Report
N/A N/A	1020130 15	Overhauled Control Rod Drive (CRD) Serial No A8460	CRD	RF01 Summary Report
N/A	1020130 16 1020130 17	Overhauled Control Rod Drive (CRD) Serial No A8740	CRD	RF01 Summary Report
N/A	1020130 17	Overhauled Control Rod Drive (CRD) Serial No A9539 Overhauled Control Rod Drive (CRD) Serial No A9582	CRD	RF01 Summary Report
N/A	1020130 19	Overhauled Control Rod Drive (CRD) Serial No A9362  Overhauled Control Rod Drive (CRD) Serial No A8745	CRD CRD	RF01 Summary Report
N/A	1020130 20	Overhauled Control Rod Drive (CRD) Serial No 7299	CRD	RF01 Summary Report
N/A	1020130 21	Overhauled Control Rod Drive (CRD) Serial No 7084	CRD	RF01 Summary Report
N/A	MHX5 10	Overhauled Control Rod Drive (CRD) Serial No A8552	CRD	RF01 Summary Report RF01 Summary Report
N/A	MHX5 17	Overhauled Control Rod Drive (CRD) Serial No A8461	CRD	RF01 Summary Report
N/A	MHX5 19	Overhauled Control Rod Drive (CRD) Serial No A9293	CRD	RF01 Summary Report
N/A	MHX5 24	Overhauled Control Rod Drive (CRD) Serial No A9454	CRD	
N/A	MHX5 25	Overhauled Control Rod Drive (CRD) Serial No A4709	CRD	RF01 Summary Report RF01 Summary Report
N/A	MHX5 28	Overhauled Control Rod Drive (CRD) Serial No A8655	CRD	RF01 Summary Report
N/A	MYN6 02	Replaced Control Rod Drive (CRD) at Core Location 26-52	CRD	RF01 Summary Report
N/A	MYN6 03	Replaced Control Rod Drive (CRD) at Core Location 26-55	CRD	RF01 Summary Report
N/A	MYN6 04	Replaced Control Rod Drive (CRD) at Core Location 34-59	CRD	RF01 Summary Report
N/A	MYN6 05	Replaced Control Rod Drive (CRD) at Core Location 18-03	CRD	RF01 Summary Report
N/A	MYN6 06	Replaced Control Rod Drive (CRD) at Core Location 02-23	CRD	RF01 Summary Report
N/A	MYN6 08	Replaced Control Rod Drive (CRD) at Core Location 10-23	CRD	RF01 Summary Report
N/A	MYN6 09	Removed and reinstalled Control Rod Drive (CRD) at Core Location 42-07	CRD	RF01 Summary Report
N/A	MYN6 10	Replaced Control Rod Drive (CRD) at Core Location 42-19	CRD	RF01 Summary Report
N/A	MYN6 11	Replaced Control Rod Drive (CRD) at Core Location 30-11	CRD	RF01 Summary Report
N/A	MYN6 12	Replaced Control Rod Drive (CRD) at Core Location 50-35	CRD	RF01 Summary Report
N/A	MYN6 13	Replaced Control Rod Drive (CRD) at Core Location 34-11	CRD	RF01 Summary Report
N/A	MYN6 14	Replaced Control Rod Drive (CRD) at Core Location 26-19	CRD	RF01 Summary Report
N/A	MYN6 29	Replaced Control Rod Drive (CRD) at Core Location 22-35	CRD	RF01 Summary Report
N/A	MYN6 45	Replaced Control Rod Drive (CRD) at Core Location 06-23	CRD	RF01 Summary Report
N/A	MYN6 46	Replaced Control Rod Drive (CRD) at Core Location 18-27	CRD	RF01 Summary Report
N/A	MYN6 47	Replaced Control Rod Drive (CRD) at Core Location 26-43	CRD	RF01 Summary Report

APPENDIX B

# ASME SECTION XI REPAIR AND REPLACEMENT LISTING FOR COLUMBIA GENERATING STATION REFUELING OUTAGE RF01

8/27/2001

PLAN	NO WOT NO COMPONENT NUMBER AND WORK DESCRIPTION		CODE COMP	R&R REPORTED IN
N/A	MYN6 48	Bonload Control Red Drive (CDD) at Care Legation 24 27	CRD	DE01 Comment Decemb
N/A	MYN6 49	Replaced Control Rod Drive (CRD) at Core Location 34-27 Replaced Control Rod Drive (CRD) at Core Location 34-43	CRD	RF01 Summary Report RF01 Summary Report
N/A	MYN6 50	Replaced Control Rod Drive (CRD) at Core Location 34-43	CRD	RF01 Summary Report
N/A	MYN6 51	Replaced Control Rod Drive (CRD) at Core Location 34-37	CRD	RF01 Summary Report
N/A	MYN6 52	Replaced Control Rod Drive (CRD) at Core Location 10-15	CRD	·
N/A	MYN6 53	Replaced Control Rod Drive (CRD) at Core Location 14-07	CRD	RF01 Summary Report
N/A	MYN6 54	Replaced Control Rod Drive (CRD) at Core Location 14-55	CRD	RF01 Summary Report RF01 Summary Report
N/A	MYN6 55	Replaced Control Rod Drive (CRD) at Core Location 22-03	CRD	
N/A	MYN6 56	Replaced Control Rod Drive (CRD) at Core Location 22-33	CRD	RF01 Summary Report
N/A	MYN6 57	• • • • • • • • • • • • • • • • • • • •		RF01 Summary Report
N/A	MYN6 57	Replaced Control Rod Drive (CRD) at Core Location 22-51	CRD	RF01 Summary Report
		Replaced Control Rod Drive (CRD) at Core Location 30-27	CRD	RF01 Summary Report
N/A	MYN6 59	Replaced Control Rod Drive (CRD) at Core Location 30-55	CRD	RF01 Summary Report
N/A	MYN6 60	Replaced Control Rod Drive (CRD) at Core Location 30-59	CRD	RF01 Summary Report
N/A	MYN6 61	Replaced Control Rod Drive (CRD) at Core Location 42-47	CRD	RF01 Summary Report
N/A	MYN6 90	Removed and reinstalled Control Rod Drive (CRD) at Core Location 14-15	CRD	RF01 Summary Report

#### NOTES -

Note 1 \* Authorized Nuclear Inservice Inspector's (ANII's) involvement was not required for these ASME Section XI replacement work plans for one (1) inch nominal pipe size (NPS) and smaller.

Date: 06/25/01

Sheet: 1 Of 1

Unit: Not Applicable



# 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: 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 (fabricated and installed modified vent connection) the existing vent connection associated with valve LPCS-V-83. The replacement (fabrication and installation) work was performed as follows:
  - 1) Fabricated new pipe nipple.
  - 2) Performed liquid penetrant (PT) examination on all the accessible internal final machined surfaces of the new pipe nipple. Liquid penetrant (PT) examination results acceptable.
  - 3) Performed liquid penetrant (PT) examination on all the external final surfaces of the entire length of the new pipe nipple. Liquid penetrant (PT) examination results acceptable.
  - 4) Cut and removed the existing vent connection associated with valve LPCS-V-83.
  - 5) Prepped the existing sockolet surfaces.
  - 6) Performed liquid penetrant (PT) examination on the sockolet prepped surfaces. Liquid penetrant (PT) examination results acceptable.
  - 7) Prepped the existing valve LPCS-V-84 surfaces.
  - 8) Performed liquid penetrant (PT) examination on the valve LPCS-V-84 prepped surfaces. Liquid penetrant (PT) examination results acceptable.
  - 9) Installed new piping material such as fabricated pipe nipple, coupling, tee and plug.
  - 10) Made required socket welds.
  - 11) Performed visual examination on the final socket welds. Visual examination results acceptable.
  - 12) Performed liquid penetrant (PT) examination on the final socket welds. Liquid penetrant (PT) examination results acceptable.

PLAN No 2-0980

### EMERGY NORTHWEST

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

	Test Pressure: Psig Component Design Pressure:	Test Temperature: ° F Psig Temperature: ° F
<i>emarks:</i> Non	e e	
	CERTIFICA	ATE OF COMPLIANCE
		wner's Report are correct and this replacement conforms
	of the ASME Code, Section XI.	
	Symbol Stamp: Not Applicable Of Authorization No.: Not Applicable	
	Pate: Not Applicable	
•		1 21 000
Prepared By	Kuldip Singh - Program Lead Engineer (	PLE Signed By Kuldip Singh - Program Lead Engineer (PLE)
)ate	6/26/01	Date 6 26 01
	CERTIFICATE C	OF INSERVICE INSPECTION
the under	rianed holding a valid commissio	on issued by the National Board of Boiler and Pressure
, me unders /essel Inspi	ectors and the State of	and employed by
		have inspected the components
described in	n this Owner's Report during the p	periodtoand
state to the	best of my knowledge and belief,	the Owner has performed examinations and taken
		's Report in accordance with the requirements of the
45ME Code By signing t	, Section XI. This certificate neither the Inspect	or nor his employer makes any warranty, expressed or
mnlied con	ncerning the examinations and co	rrective measures described in this Owner's Report.
Furthermore	e, neither the Inspector nor his en	nployer shall be liable in any manner for any personal
njury or pro	pperty damage or a loss of any kir	nd arising from or connected with this inspection.
	Contact Add NGC And Contact	Commissions
		Commissions National Board, State, and Endorsements
	Inspector's Signature	
	Inspector's Signature	Transition Board, Oute, and Employment

PLAN No 2-1431

Date: 09/13/00

**Unit:** Not Applicable

Sheet: 1 of 1



### 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 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
RCIC-PCV-15 Valve Plug* Valve Plug	Fisher Controls Fisher Controls Fisher Controls	6056568 N/A* PB9380-1	2365 N/A N/A	N/A N/A N/A	1977 1977* 1996	Replaced Replacement	Yes, Code Class 2* No, Code Class 2* Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing valve plug for valve RCIC-PCV-15. The replacement work was performed as follows:
  - 1) Removed existing valve plug from the valve.
  - 2) Installed new replacement valve plug, Serial No PB9380-1 in the valve.
  - 3) Installed eight (8) new replacement studs for the valve body to bonnet joint.
  - 4) Installed eight (8) new replacement nuts for the valve body to bonnet joint.

#### NOTES -

1) \* The existing valve plug came with valve RCIC-PCV-15, Serial No 6056568. This valve is ASME Code Stamped and complies with ASME Section III, Code Class 2, 1971 Edition with Summer 1973 Addenda requirements.



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

ests Conducted: Hydrostatic Pneumai Test Pressure: Psig Component Design Pressur	Test Temperature: ° F
Remarks: See attached N-2 Code Data Report for the r	new replacement valve plug, Serial No PB9380-1.
CERTIFIC	CATE OF COMPLIANCE
to the rules of the ASME Code, Section XI. Type Code Symbol Stamp: Not Applicable Certificate Of Authorization No.: Not Applicable	Owner's Report are correct and this replacement conforms
Prepared By Culdy Surger Kuldip Singh - Program Lead Enginee  Date 91300	Signed By Dulay Surgh  Kuldip Singh - Program Lead Engineer (PLE)  Date  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
, 1	
	OF INSERVICE INSPECTION
Vessel Inspectors and the State of	and employed by
	have inspected the components
described in this Owner's Report during the	period to and
corrective measures described in this Owne ASME Code, Section XI.	f, the Owner has performed examinations and taken er's Report in accordance with the requirements of the etor nor his employer makes any warranty, expressed or
implied, concerning the examinations and c Furthermore, neither the Inspector nor his e	corrective measures described in this Owner's Report.  Employer shall be liable in any manner for any personal clinical distributions are connected with this inspection.
Not Required - Replacement 1" NPS And Smaller Inspector's Signature	Commissions  National Board, State, and Endorsements
Date	

### FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL

### **NUCLEAR PARTS AND APPURTENANCES\***

As Required by the Provisions of the ASME Code, Se Not to exceed One Day's Production

S* ection III PLA Pg	1 No. 2-1431 Quedup Suight 1 of 1 1/13/00
MARSHALLTOWN, IA	50158
rtificate Holder)	
. WA. 99352	
urchaser)	
SS)	
N/A	1996
(CRN)	(year built)
2	N/A
(ciass)	(Code Case no.)

1. Ma	Manufactured and certified by FISHER CONTROLS INT'L INC., 205 SOUTH CENTER STREET, MARSHALLTOWN, IA. 50158 (name and address of NPT Certificate Holder)							
2. Manufactured for		WASHINGTON PUBLIC POWER SUPPLY, BOX 968, RICHLAND, WA. 99352  (name and address of purchaser)						
			(name and a	mess of purchaser)				
3. Location of installation WNP-2, RICHLAND, WA. 99352								
(name and address)								
				37/4	1996			
4. Ty			75.0 KSI	N/A (CRN)	(year built)			
	(drawing no.)	(mat'l. spec. no.)	(tensile strength	) (CRIT)	(Jear balle)			
5. ASME Code, Section III:		1971	SUMMER 1973	2	N/A			
		(edition)			(Code Case no.)			
				***	D N/A			
6. Fa	bricated in accordance with Const. Sp			N/A	Date N/A			
		(no.)	•					
7 D.	marks: DESIGN: ASME B	PVC SECT III. 1971 EDITION.	SUMMER 1973 ADDEND	A. CLASS 2				
7. RE	OTHER: ASME BU	EPVC SECT III 1989 EDITION.	O ADDENDA, CLASS 2					
	01.12.1.1.12.2							
8. No	om. thickness (in.) N/A	Min. design thickness (in.)	N/A Dia. ID (ft & in.)	N/A Leng	th overall (fl & in.) N/A			
9. W	hen applicable, Certificate Holders' I	Data Reports are attached for each it	em of this report:					
			· —	S	Heat Number			
	Part or Appurtenance	Heat Number		Part or Appurtenance Serial Number	near Number			
	Serial Number			Serial Mulliper				
(1)	PB9380-1	36644-1	(26)					
(2)			(27)					
(3)			(28)					
(4)			(29)					
(5)			(30)					
(6)			(31)					
(7)			(32)					
(8)			(33) —					
(9)			(35)					
(10) (11)			(36)					
(12)			(37)					
(13)			(38)					
(14)			(39)					
(15)			(40)					
(16)			(41)					
(17)			(42)					
(18)		<del></del>	(43)					
(19)			(44)					
(20)			(46)					
(21) (22)		·	(47)					
(23)			(48)					
(24)								
(25)			(50)					
,					<u> </u>			

at temp. T 170 1285 Hydro, test pressure 10. Design Pressure (when applicable)

<sup>\*</sup>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.

## FORM N-2 (back)

				Mfr. Serial No.	N/A
	CERTIFICA	ation of design	•		
Design specifications certified by	JAMES F. HAGAN, JR.	P.E. State	WA	Reg. no.	13579
	(when applicable)				
Design report* certified by	N/A (when applicable)	P.E. State	NA	Reg. no.	/NA
	(when applicable)	::			
	CERTIFICATE O	F SHOP COMPLIA	INCE		
We certify that the statements made it	n this report are correct and that this (these)	PLUG			
conforms to the rules of construction	of the ASME Code, Section III.	7200			
NPT Certificate of Authorization No.	. 1930	Expires		11-18-98	
Date 9-28-9 ( Name	FISHER CONTROLS INT'L INC	<u> </u>		Signed Day	DYQ
***************************************	(NPT Certificate Holder)		<del></del>		rized representative)
				<del></del>	
				· · · · · · · · · · · · · · · · · · ·	
	CERTIFICATE (	OF SHOP INSPECT	ION		
I, the undersigned, holding a valid cor	mmission issued by the National Board of Boi	ler and Pressure Vesse	l Inspectors and ti	ne state or Province of	IOWA
and employed by HARTFORD	S.B.I. & I. CO		a mapecana and a	io same of 110 virge of	IOWA
-f HARTTONN COLD:		· · · · · · · · · · · · · · · · · · ·			
of HARTFORD, CONN best of my knowledge and belief, the (	have inspected these items described in the Certificate Holder has fabricated these parts or	is Data Report on	ordance with the	- 29-96	and state that to the
best of my knowledge and belief, the (authorized for stamping on the date sh	Certificate Holder has fabricated these parts or nown above.	appurtenances in acco			ach part listed has been
best of my knowledge and belief, the cauthorized for stamping on the date shall by signing this certificate, neither the Furthermore, neither the inspector nor	Certificate Holder has fabricated these parts or sown above, inspector nor his employer makes any warram	appurtenances in acco	d. concerning the	equipment described in thi	ach part listed has been
best of my knowledge and belief, the ( authorized for stamping on the date sh By signing this certificate, neither the	Certificate Holder has fabricated these parts or nown above.	appurtenances in acco	d. concerning the	equipment described in thi	ach part listed has been
best of my knowledge and belief, the (authorized for stamping on the date sh By signing this certificate, neither the Furthermore, neither the inspector nor with this inspection.	Certificate Holder has fabricated these parts or sown above, inspector nor his employer makes any warram	ty, expressed or implier any personal injury of	ed, concerning the or property damag	equipment described in thi	ach part listed has been
best of my knowledge and belief, the cauthorized for stamping on the date sh By signing this certificate, neither the Furthermore, neither the inspector nor	Certificate Holder has fabricated these parts or sown above, inspector nor his employer makes any warram	appurtenances in acco	ed, concerning the property damag	equipment described in thi	ach part listed has been  s Data Report. g from or connected

Date: 07/23/01

**Sheet:** 1 Of 1

Unit: Not Applicable



## 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: 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-73a	JCI	PI(1)-4S-X-73a	N/A	N/A	1982		Yes, Code Class 1

- 7. Description Of Work Performed: Replaced (fabricated and installed modified vent connection) the existing vent connection associated with valveHPCS-V-102. The replacement (fabrication and installation) work was performed as follows:
  - 1) Fabricated new pipe nipple.
  - 2) Performed liquid penetrant (PT) examination on all the accessible internal final machined surfaces of the new pipe nipple. Liquid penetrant (PT) examination results acceptable.
  - 3) Performed liquid penetrant (PT) examination on all the external final surfaces of the entire length of the new pipe nipple. Liquid penetrant (PT) examination results acceptable.
  - 4) Cut and removed the existing vent connection associated with valve HPCS-V-102.
  - 5) Prepped the existing sockolet surfaces.
  - 6) Performed liquid penetrant (PT) examination on the sockolet prepped surfaces. Liquid penetrant (PT) examination results acceptable.
  - 7) Prepped the existing pipe cut surfaces.
  - 8) Performed liquid penetrant (PT) examination on the pipe prepped surfaces. Liquid penetrant (PT) examination results acceptable.
  - 9) Installed new piping material such as fabricated pipe nipple, pipe, tee, restricting orifice coupling and plug.
  - 10) Made required socket welds.
  - 11) Performed visual examination on the final socket welds. Visual examination results acceptable.
  - 12) Performed liquid penetrant (PT) examination on the final socket welds. Liquid penetrant (PT) examination results acceptable.

#### NOTES -

1) The existing ASME Code Stamped process instrumentation system in which the existing vent connection associated with valve HPCS-V-102 was replaced (fabricated and installed modified vent connection) is Process Instrumentation (PI) system PI(1)-4S-X-73a. This process instrumentation system is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements.



ests Conducte	d: Hydrostatic Pneum Test Pressure: Psig Component Design Press	ratic Nominal Operating Pressure Other X I  Test Temperature: ° F  Temperature: ° F
Remarks: None		
	CERTIF	FICATE OF COMPLIANCE
We certify that	the statements made in thi	s Owner's Report are correct and this replacement conforms
to the rules of	the ASME Code, Section XI.	
• •	mbol Stamp: Not Applicable	
Sertificate Of J Expiration Dat	Authorization No.: Not Applicab	ble
•	_	2 2 031
Prepared By _	Culdip Sur	eer (PLE)  Signed By  Kuldip Singh - Program Lead Engineer (PLE)  Date  L/14/01
	Kuldip Singh - Program Lead Engin	eer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
Date	6/14/01	Date اهم   14 0 ا
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-		The state of the s
	CERTIFICAT	E OF INSERVICE INSPECTION
. the undersia	ned. holdina a valid commis	ssion issued by the National Board of Boiler and Pressure
		and employed by
		have inspected the components
described in th	nis Owner's Report during th	ne periodtoand
		ief, the Owner has performed examinations and taken ner's Report in accordance with the requirements of the
ASME Code. S		ner's Report III accordance war the requirements of the
By signing this	certificate neither the Insp	ector nor his employer makes any warranty, expressed or
		corrective measures described in this Owner's Report.
		employer shall be liable in any manner for any personal
njury or prope	erty damage or a loss of any	kind arising from or connected with this inspection.
		Commissions
	placement 1* NPS And Smaller	
	placement 1" NPS And Smaller spector's Signature	National Board, State, and Endorsements

Date: 03/08/01

Sheet: 1 Of 1
Unit: Not Applicable



## 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(1)-4CL2 RCIC-V-627	WPPSS * Borg Warner	RCIC(1)-4CL2-P1 80112	N/A N/A	N/A N/A	1984 1983	Replacement	Yes, Code Class 2 Yes, Code Class 1
RCIC-V-628	Borg Warner	79959	N/A	N/A	1993	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed: Replaced (modified) vent connection. The replacement work was performed as follows:
  - 1) Installed new piping material such as elbows, coupling and pipe.
  - 2) installed new valve RCIC-V-627, Serial No 80112.
  - 3) Installed new valve RCIC-V-628, Serial No 79959.
  - 4) Made required socket welds.
  - 5) Performed visual examination on the final socket welds. Visual examination results acceptable.
  - 6) Performed liquid penetrant (PT) examination on the final socket welds. Liquid penetrant (PT) examination results acceptable.
  - 7) Installed new support material such as U bolt, nuts and jam nuts.

- 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 piping material, new valves RCIC-V-627, Serial No 80112 and RCIC-V-628, Serial No 79959 was installed is Reactor Core Isolation Cooling (RCIC) piping system RCIC(1)-4CL2-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-627, Serial No 80112 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.
- 4) The new valve RCIC-V-628, Serial No 79959 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.

Test Pressure: Psig Component Design Pressure	Test Temperature: ° F e: Psig Temperature: ° F
emarks: See attached NPV-1 Code Data Reports for the EPN No Serial No RCIC-V-627 80112 RCIC-V-628 79959	he following new valves:
CERTIFIC	CATE 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	
1 0 0	Signed By Kuldip Singh - Program Lead Engineer (PLE)
Prepared By Julan Soup	Signed By Kuldip Singh - Program Lead Engineer (PLE)
Kuldip Singh - Program Lead Engineer	r (PLE) Kuldip Singh - Program Lead Engineer (PLE)
71010	Kuldip Singh - Program Lead Engineer (PLE)  Date 3 S O
Date	Date
CERTIFICATE	OF INSERVICE INSPECTION
l, the undersigned, holding a valid commiss	tion issued by the National Board of Boiler and Pressure
Vessel inspectors and the State of	and employed by and employed by have inspected the components
described in this Owner's Report during the	
uescribed in this Owner's neport during the state to the best of my knowledge and belief	f, the Owner has performed examinations and taken
corrective measures described in this Owne	er's Report in accordance with the requirements of the
	,
ASHE Code Section YI	ctor nor his employer makes any warranty, expressed or
ASME Code, Section XI. By signing this certificate neither the inspec	
By signing this certificate neither the inspec implied, concerning the examinations and c	corrective measures described in this Owner's Report.
By signing this certificate neither the inspec implied, concerning the examinations and c Furthermore, neither the inspector nor his e	corrective measures described in this Owner's Report.  Employer shall be liable in any manner for any personal
By signing this certificate neither the inspec implied, concerning the examinations and c Furthermore, neither the inspector nor his e	corrective measures described in this Owner's Report. employer shall be liable in any manner for any personal kind arising from or connected with this inspection.
By signing this certificate neither the inspectimplied, concerning the examinations and curthermore, neither the inspector nor his einjury or property damage or a loss of any k	corrective measures described in this Owner's Report.  employer shall be liable in any manner for any personal kind arising from or connected with this inspection.  Commissions
By signing this certificate neither the inspec implied, concerning the examinations and c Furthermore, neither the inspector nor his e	corrective measures described in this Owner's Report. Employer shall be liable in any manner for any personal kind arising from or connected with this inspection.

As Required by the Provisions of	the ASME Code, Section III, Div. )	PLAN NO	. 2-1548
· · · · · · · · · · · · · · · · · · ·			

1.	Manufactured by MmcI	ear Valve Div.,B	org Warner,	7500 Tyran	Ave., Val	n Nuvs, (	alif.
,	Manufactured by Muci	hington Public P	ower Supply	Systems, R	chland, W	ashingto	n :
			chaser or Owner! norton WPP!	SS Hanford #	2 Job Site	9	•
	Location of Installation	181					2 //.
4	Pump or Valve Y G1	obe Valve	Nominal in	nlet Size3. jir	<u>(4</u> Out (대)	let Size	(incn)
		N Certificate Holder's		•	•		•
		. Serial	Registration	(d) Drawing		(f) NacL	(g) Year
	or Type	Na.	No.	No.	(e) Class	Bd. No.	8uilt *
	1500₽	80107 thru 801	28 N/A	76590-2	1	N/A	1983
	(1)						•
	(2)	•					
	(4)						
	(5)	RCIC- V-	627, SIN	180115		•	
	(6)		<del></del>	N/ 1 3 40	7		
	(7)		•	Lewip	2445		
	(8)				3/8/01		
	(9)			•			·
	(10)	e designed to ha		d madda midd	i incluie		
_	The Astros so	e designed to de orated water. et		e meetad week took enith a ?		The	ASTER
5.		(Brief Coscomuna	of service for word	a emportant was ce	sicned)	<u> </u>	
		resoure rating o	I the mail:	13 STATEM :	MICV.		<del></del>
		3600 csi	100			n/A	
6.	Design Conditions	3600 pai	(Temperatura)	'F or Valve Pr	essure Class _	20,7	(1)
7.	Cold Working Pressure _	3600 psi at 1	00°F.			•	
	Pressure Retaining Flecas			• .	•		
	44 ) 45-	Manager Services Services	as No	Manulac			
	Mark No.	Material Sp	ec. no.	Manuiac	urer	Rema	rx3
	(a) Castings						
	Disc-Code 5F55	Stellite #6		Rex Precision	on I		<del></del>
	5F32						
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	(b) Forgings						
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<sup>(1)</sup> For manually operated valves only.

<sup>\*</sup> 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 Cata Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

Mark No.	Material Spec. No.	Manufacturer	Remarks
			•
(c) Balting N/A		<del> </del>	
	·		<u> </u>
	•	<del>-  </del>	
(d) Other Parts			
cksear-Code 5E84	SA 564 Tv630	Jorgensen Steel	<u> </u>
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	1		1
			İ
Hyerenade sat 5400	cai. Disk Citterential test pressure	3600 <sub>Fei</sub> .	
ansanction of the ASME	ents made in this report are corre- Code for Nuclear Power Plant Co.	mochents. Section III. Living	conforms to the rules of distant 1974.
Enservation of the ASME Addenote Winter 173 (Oss) Signed Huclear Valv (A Cartiflate	Code for Nuclear Power Plant Co. Code Case No. R Div., Borx Warmer Moloer  therization No. H-1254	Date	=1tion
Enstruction of the ASME Addenda Winter 173 (Ossa) Signed <u>Hucles: Valv</u> (N Cartificate of Au	Code for Nuclear Power Plant Co. Code Case No. Re Dir., Borg Varner Protect Therefore No. H-1754 Therefore No. H-1754	Data  N/A  Data  Data  N/A  Data  N/A  Data  O use the  N/A  CF DESIGN	21/23 21/23 21/23/24 201 expires 10/27/84
Enstruction of the ASME Addenda Winter 173 (Oss) Signed Hunlest Valv (H Cartificate of Au	Code for Nuclear Power Plant Co.  Code Case No.  R DIT. BOTZ Variat  Holders  therization No. H-1754  CERTIFICATION  756	OF DESIGN	21/23 21/23 21/23/24 2001 expires 10/27/84 (Com)
Enstruction of the ASME Addenda Winter 173 (Oss) Signed Hunlest Valv (H Cartificate of Au	Code for Nuclear Power Plant Co.  Code Case No.  R DIT. BOTZ Variat  Holders  therization No. H-1754  CERTIFICATION  756	OF DESIGN	21/23 21/23 2001 expires 10/27/84 (Com)
Enstruction of the ASME Addenda Winter 173 (Osta)  Signed Hunter Valv (N Cartificate of Au  Cur ASME Cartificate of Au  Cussign information on file  Stress analysis report (Class	Code for Nuclear Power Plant Comp. Code Case No.  R DIT. BOTZ Warmer Politication No. H-1754  CERTIFICATION ALTYD of Botz Warmer, 750  Ex 1 only) on file at NVD of Botz	O use the H symbol of DESIGN  OF DESIGN  ON Tyrone Ave., Van Hur of Warner, 7560 Tyrone	21/23 21/23 2001 expires 10/27/84 (Com)
Cur ASME Cartificate of Au  Cossign information on file  Stress analysis report (Class  Characteristic cartificate of Au  Cossign information on file  Cossign information on file  Cossign information on file  Cossign information on file	Code for Nuclear Power Plant Code  Code Cise No.  R Div., Borg Warner  Therization No. H-1254  CERTIFICATION  ALTYD of Borg Warner, 750  Est 1 only) on file at NVD of Borg  fied by (1) David J. Murphy	O use the H symbol of DESIGN  OF DESIGN  ON Tyrone Ave., Van Hur of Warner, 7560 Tyrone	21/23 21/23 21/23/24 2001 expires 10/27/84 (Com)
Cur ASME Cartificate of Au  Cossign information on file  Stress analysis report (Classes)  Cassign specifications cartificate  Cassign spe	Code for Nuclear Power Plant Communication No	O use the H rymo (M)  OF DESIGN  OO Tyrone Ave., Van Hur Warner, 7500 Tyrone	21/23 21/23 21/23/24 2001 expires 10/27/84 (Com)
Cur ASME Cartificate of Au  Cour ASME Cartifi	Code for Nuclear Power Plant Code Code Case No.  The Div. Bory Warmer Theorem therization No. H-1254  CERTIFICATION ALTYD of Bory Warmer, 750  Ex 1 only) on file at NVD of Bory  Fied by (1) David J. Murphy  Reg. No. 12542  Byron E. Leonar	O use the H rymo (M)  OF DESIGN  OO Tyrone Ave., Van Hur Warner, 7500 Tyrone	21/23 21/23 2001 expires 10/27/84 (Com)
Cesign information on file Stress analysis cardified by  Consumptions on the ASME  Consum Type Type  Consum Type Type  Consideration on file  Consign information on file  Consign specifications cardified by  Consum Type Type  Consum Type	Code for Nuclear Power Plant Co.  Code Cise No.  R Div. Borx Warner  CERTIFICATION  ALTYD of Borx Warner, 750  En 1 only) on file at NVD of Bors  Fied by (1) David J. Murphy  Req. No. 12542  Byron E. Leonar  Req. No. E123	O use the H rymo (M)  OF DESIGN  OO Tyrone Ave., Van Hur Warner, 7500 Tyrone	21/23 21/23 2001 expires 10/27/84 (Com)
Cur ASME Cartificate of Au  Cossign information on file  Stress analysis report (Class  Cossign specifications cartified  PE State Washington	Code for Nuclear Power Plant Co.  Code Cise No.  R Div. Borx Warner  CERTIFICATION  ALTYD of Borx Warner, 750  En 1 only) on file at NVD of Bors  Fied by (1) David J. Murphy  Req. No. 12542  Byron E. Leonar  Req. No. E123	O use the H rymo (M)  OF DESIGN  OO Tyrone Ave., Van Hur Warner, 7500 Tyrone	21/23 21/23 2001 expires 10/27/84 (Com)
Cur ASME Cartificate of Au  Cour ASME Cartifi	Code for Nuclear Power Plant Co.  Code Cise No.  R Div. Borx Warner  CERTIFICATION  ALTYD of Borx Warner, 750  En 1 only) on file at NVD of Bors  Fied by (1) David J. Murphy  Req. No. 12542  Byron E. Leonar  Req. No. E123	O use the H rymo (M)  OF DESIGN  OO Tyrone Ava., Van Hor Warner, 7560 Tyrone	21/23 21/23 2001 expires 10/27/84 (Com)
Construction of the ASME Vinter 173  (Osta)  Gran Huclear Vally  (N Cartificate of Au  Cur ASME Cartificate of Au  Cur ASME Cartificate of Au  Cassign information on file  Stress analysis report (Classes)  PE State Washington  Stress analysis cartified by  PE State CA  (1) Signature not required.	Code for Nuclear Power Plant Comp.  Code Cise No.  R Div., Borg Warmar  Molori  therization No. H-1254  CERTIFICATION  AT TO Of Borg Warmar, 750  Ex 1 only) on file at NVD of Borg  Fied by (1) David J. Murphy  Reg. No. 12542  Byron E. Leonar  Reg. No. E123  List name only.	Date Managed of Roller and	20/27/84  col expires 10/27/84  (Cont)  73. Ca. 91409  Ave. Van Nuvs.Ch
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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 P. And N. I.	2-1548

Manufactured by Nucle	IName and Address of	N Certificate H	olderi	3000 Geor	Se aspur	IBCOTT HAY
Location of Installation	(Name and Address of Pur Richland, Washi	chaser or Owner)				
Pump or Valve Y G1			Inlet Size(in	3/4 Ou	tlet Size	3/4 (inch)
Series No.	i Certificate Hoider's Serial No.		_ (d) Drawing	(a) Class	(f) Nat'l.	(g) Year
or Type	79951 thru	N/A	No. 76590-2	(e) Class	Bd. No. N/A	Built 1983
1) <u>1300#</u> 2)	75570	M/A	70370-2		N/A	1903
(3)						
(4)(5)	170: 4 3/ /		1113166			
(6) (7)	RCIC-V-G	,	N7995	1		
(8)				Culary	Say 5	
(9) (10)					3/8/01	
temberature br	sasars rating of	r the mean	ch equipment was det	elow.		
Design Conditions	3600 psi	100 (Temperature)	°F or Valve Pre		N/A	(1)
Design Conditions	3600 psi	100 ·			n/a	(1)
Design Conditions	3600 psi	100 (Temperature) OO°F.		essure Class .	N/A Remark	
Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.  (a) Castings	3600 psi	100 (Temperature) OO°F.	°F or Valve Pre	essure Class .		
Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.	3600 psi	100 (Temperature) OO°F.	°F or Valve Pre	essure Class .		
Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.  (a) Castings  isc-Code 1X20	3600 psi	100 (Temperature) OO°F.	°F or Valve Pre	essure Class .		
Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.  (a) Castings  isc-Code 1X20	3600 psi	100 (Temperature) OO°F.	°F or Valve Pre	essure Class .		
Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.  (a) Castings  isc-Code 1X20	3600 psi	100 (Temperature) OO°F.	°F or Valve Pre	essure Class .		
Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.  (a) Castings  isc-Code 1X20	3600 psi	100 (Temperature) OO°F.	°F or Valve Pre	essure Class .		
Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.  (a) Castings  isc-Code 1X20	3600 psi	100 (Temperature) OO°F.	°F or Valve Pre	essure Class .		
Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.  (a) Castings  isc-Code 1X20	3600 psi	100 (Temperature) OO°F.	°F or Valve Pre	essure Class .		
Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.  (a) Castings  isc-Code 1X20'  1T01', 1W10', 5F3	3600 psi	100 (Temperature) OO°F.	°F or Valve Pre	essure Class .		
Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.  (a) Castings  isc-Code 1X20'  1T01', 1W10', 5F3'	3600 psi	100 (Temperature) OO°F.	Manufactu Rex Precisi	essure Class .		
Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.  (a) Castings  isc-Code 1X20'  1T01', 1W10', 5F3'	3600 psi	100 (Temperature) OO°F.	Manufactu Rex Precisi	essure Class .		
Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.  (a) Castings  isc-Code 1X20'  1T01', 1W10', 5F3'	3600 psi	100 (Temperature) OO°F.	Manufactu Rex Precisi	essure Class .	Remark	

<sup>(1)</sup> For manually operated valves only.

<sup>\*</sup> 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\_js\_numbered and number of sheets is recorded at top of this form.

Mark No.	Material Spec. No.	Manufacturer	Remarks
c) Solting N/A		·	•
	•	•	
	<del></del>	1	
	•		
(d) Other Parts			
	A 564 Tv 630	Jorgensen Steel	
4H70 5E84	. 30 17 030	Sorgensen Seech	
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drostatic test 5400 psi.	Disk Differential test pressure	2500	
	CERTIFICATE OF		
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struction of the ASME Code  Winter '75  Description  Ruclear Valve Diversity  Recrificate Holder  ASME Certificate of Authorization  ASME Certificate of Authorization  Assess analysis report (Class 1 only  ign specifications certified by (1)  State Washington Reg  res analysis certified by (1)  CA Reg  Signature not required. List nate  the State or Province of  Long Grove, Illin  7/29 19 &  cted this pump, or valve, in act  signing this certificate, neither  equipment described in this D	CERTIFICATION  CERTIFICATION  CERTIFICATION  CERTIFICATION  CONTROL NO. 12542  Byron H. Leonard  No. 12542  Byron H. Leonard  CERTIFICATE OF SHOOT  CERTIF	Dete N/A Date N/A Dat	Ca. 91409  Ca. 91409  ., Von Nuvs, CA  Mittal Casualt  this Data Report on tificate Holder has con- or implied, concerning shall be liable in any
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Date: 06/27/01

Sheet: 1 Of 1
Unit: Not Applicable



## 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: 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
MS(1)-4A	WPPSS*	MS(1)-4A-P1	N/A	N/A	1983		Yes, Code Class 2

- 7. Description Of Work Performed: Reoriented (rotated) existing valve MS-V-20, Serial No R-Z227-1-1. The work was performed as follows:
  - 1) Cut existing circumferential butt welds and removed the existing valve.
  - 2) Beveled cut pipe ends.
  - 3) Reoriented (rotated) and reinstalled the existing valve.
  - 4) Made required circumferential butt welds.
  - 5) Surface finished the circumferential butt weld for ISI (PSI).
  - 6) Performed visual examination on the final circumferential butt weld. Visual examination results acceptable.
  - 7) Performed ultrasonic (UT) examination on the final circumferential butt weld for ISI (PSI). Ultrasonic (UT) examination results acceptable.
  - 8) Performed radiographic (RT) examination on the final circumferential butt weld. Radiographic (RT) examination results acceptable.
  - 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.

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The radiographic (RT) examination on the final circumferential butt weld 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.
- 3) The VT-2 visual examination during pressure test to confirm pressure boundary integrity of the 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.

PLAN No 2-1568

### EMERGY NORTHWEST

Tests Conducte	d: Hydrostatic Pneumatic Test Pressure: 935 Psig Component Design Pressure: 1		I Operating Pressure X Other Non Test Temperature: 530° F Temperature: 575° F
Remarks: None			
	CERTIFICA	TE OF COMP	PLIANCE
We certify the	t the statements made in this Ou	vner's Report	are correct and this replacement conforms
	the ASME Code, Section XI.	,,,e, o ,,epo,,	
	mbol Stamp: Not Applicable		
l .	Authorization No.: Not Applicable		
Expiration Dat	e: Not Applicable		$\Omega$ $\Omega$ $\Omega$
Prepared By	Coulant Such	Signed	By Julant Sures
Trepared by _	Kuldip Singh - Program Lead Engineer (F		Kuldip Singh - Program Lead Engineer (PLE)
Date	6127/01	Date	6 27 01
	CERTIFICATE O	F INSERVICE	E INSPECTION
Vessel Inspection Johnston, Rhod period	tors and the State of Washington le Island have Inspected the comply formed examinations and taken with the requirements of the AS is certificate neither the Inspecto erning the examinations and cor neither the Inspector nor his em	and employed ponents desc _ and state to n corrective m BME Code, Se or nor his emp rective meast ployer shall b	ne National Board of Boiler and Pressure d by Factory Mutual Insurance Company of cribed in this Owner's Report during the the best of my knowledge and belief, the reasures described in this Owner's Report action XI.  Soloyer makes any warranty, expressed or cures described in this Owner's Report. The liable in any manner for any personal on or connected with this inspection.
1.11	Esto	Commissi	Ons 7486w/7486 w.T.S TS  National Board, State, and Endorsements
ir	nspector's Signature		National Doard, State, and Endoisements
Date 7/2	4/01		
Jane -/		_	

Date: 07/23/99

Sheet: 1 Of 1

Unit: Not Applicable



## 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(5)-2 RCC-V-610 RCC-V-610	WPPSS * Borg Warner Borg Warner	RCC(5)-2-P1 13460 56639	N/A N/A N/A	N/A N/A N/A	1983 1977 1980	Replaced Replacement	Yes, Code Class 3 Yes, Code Class 1 Yes, Code Class 1

- 7. Description Of Work Performed: Replaced existing valve RCC-V-610. The replacement work was performed as follows:
  - 1) Removed existing valve RCC-V-610, Serial No 13460.
  - 2) Installed replacement valve RCC-V-610, Serial No 56639.
  - 3) Made required socket weld.
  - 4) Performed visual examination on the final socket weld. Visual examination results acceptable.

- 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 valve RCC-V-610, Serial No 56639 was installed is Reactor Building Closed Cooling (RCC) piping system RCC(5)-2-P1. This piping system is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The replacement valve RCC-V-610, Serial No 56639 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Summer 1974 Addenda requirements.
- 4) ASME Section III, Code Class 1 valve for ASME Section III, Code Class 3 application.

PLAN No 2-1597

### EMERGY NORTHWEST

ests Conducted: Hydrostatic Pneumai Test Pressure: Psig Component Design Pressur	tic Nominal Operating Pressure Other X  Test Temperature: ° F  Temperature: ° F
<b>emarks:</b> See attached NPV-1 Code Data Report for th	ne replacement valve RCC-V-610, Serial No 56639.
CERTIFIC	CATE OF COMPLIANCE
Ve certify that the statements made in this of the rules of the ASME Code, Section XI.	Owner's Report are correct and this replacement conforms
Type Code Symbol Stamp: Not Applicable	
Certificate Of Authorization No.: Not Applicable	
xpiration Date: Not Applicable	
_	V . C. (2.3)
repared By Wilder Such	r (PLE)  Signed By  Kuldip Singh - Program Lead Engineer (PLE)  Date  1 24 01
Kuldip Singh - Frogram Lead`Enginee	r (PLE) Kuldip Singh - Program Lead Engineer (PLE)
Date 1/24/01	Date 1/24/01
CEDTIFICATE	OF INSERVICE INCREATION
CENTIFICATE	OF INSERVICE INSPECTION
the undersigned, holding a valid commiss essel inspectors and the State of	ion issued by the National Board of Boiler and Pressure and employed by
	have inspected the components
escribed in this Owner's Report during the	period to and
orrective measures described in this Owne ISME Code, Section XI.	f, the Owner has performed examinations and taken er's Report in accordance with the requirements of the
ly signing this certificate neither the Inspec	tor nor his employer makes any warranty, expressed or
urthermore, neither the Inspector nor his e	orrective measures described in this Owner's Report, imployer shall be liable in any manner for any personal find arising from or connected with this inspection.
	g c. comocida mar ano mopeodori.
	Commissions
Not Required - Replacement 1" NPS And Smaller	
Not Required - Replacement 1* NPS And Smaller Inspector's Signature	National Board, State, and Endorsements

VEOL

# 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 PLAN No. 2-1597

(a) Model No., (b) N Certificate Holder's (c) Canadian Series No. Serial Registration (d) Drawing (f) Nat'l.	99352 4 inch) (g) Year Built
3. Location of Installation Richland, Weehington WPPSS Ranford #2 Job Site  (Name and Address) 4. Pump or Valve Globe Valvo Nominal Inlet Size 3/4 (inch)  (a) Model No., (b) N Certificate Holder's (c) Canadian  Series No. Serial Registration (d) Drawing (f) Nat'l.	nch) (g) Year Built
(a) Model No., (b) N Certificate Holder's (c) Canadian Series No. Serial Registration (d) Drawing (f) Nat'l.	nch) (g) Year Built
Series No. Serial Registration (d) Drawing (f) Net'l.	Built
general track	Built
The No. No. No. (a) Class Rd No.	
or Type No. No. No. (e) Class Bd. No.	
(1) 1500W 56828, 56652, N/A 16596 2 =	980
56634, 56636	
(2) Thru 56639	
(4)	
(6) KCC-V-610 SIN 56639	
(6)	
(a) Kuldip Sup b	
19)	
(10)	
The valves are designed to handle a fluid media which includes steam, we condensate, horated water, etc., associated with a PWR and BWR. The (Brief description of service for which southment was described) temperature pressure rating of the media is stated below.	ıter
Design Conditions 3600 pei 100 °F or Valve Pressure Class N/A (Temperature)  7. Cold Working Pressure 3600 pei at 100°F.  8. Pressure Retaining Pieces	(1
Mark No. Material Spec. No. Manufacturer Remarks	<u>,                                     </u>
(a) Castings	

Mark No.	Material Spec. No.	Manufacturer	Remarks
Castings			
Disc-Code 4D32	Colmonoy #4	Rex Precision	
•		1 1 15	111 12 mm
		.,	W e 12 (4) in 11
		2111	1:
			4 J.D. 5 G. 1955 1-
		PENUT	Civil of
			·
		913	11-31-
o) Forgings			1
Body-Code 1V46	ASME SA105	Kawaguchi Dropfor	ging Co.
<del></del>			

(1) For manually operated valves only.

YES ER 119-16286

(10/77)

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

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.

HRG BR 215-16286

9

2

Date: 06/13/01

Sheet: 1 Of 1

Unit: Not Applicable



## 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 Air System (CAS)

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
CAS(5)-1 CAS-V-326A CAS-V-326A	WPPSS * Dragon Valves Dragon Valves	CAS(5)-1-P1 PB1244 PB1323	N/A N/A N/A	N/A N/A N/A	1984 1995 1999	Replaced Replacement	Yes, Code Class : Yes, Code Class : Yes, Code Class :

- 7. Description Of Work Performed: Replaced existing valve CAS-V-326A. The replacement work was performed as follows:
  - 1) Removed existing valve CAS-V-326A, Serial No PB1244.
  - 2) Removed existing tubing material such as nut, front ferrule, back ferrule, cap and tubing.
  - 3) Installed replacement tubing material such as nut, front ferrule, back ferrule, cap and tubing.
  - 4) Installed replacement valve CAS-V-326A, Serial No PB1323.
  - 5) Made required non-welded joints.
  - 6) Made required socket welds.
  - 7) Performed visual examination on the final socket welds. Visual examination results acceptable.

- 1) The existing ASME Code Stamped system in which the replacement valve CAS-V-326A, Serial No PB1323 was installed is Control Air System (CAS) system CAS(5)-1-P1. This system is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 2) The replacement valve CAS-V-326A, Serial No PB1323 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.
- 3) ASME Section III, Code Class 2 valve for ASME Section III, Code Class 3 application.

ests Conducted: Hydrostatic Pneumat  Test Pressure: Psig  Component Design Pressur	tic Nominal Operating Pressure Other X  Test Temperature: ° F  Temperature: ° F
Remarks: See attached NPV-1 Code Data Report for th	ne replacement valve CAS-V-326A, Serial No PB1323.
CERTIFIC	CATE OF COMPLIANCE
Ne certify that the statements made in this (	Owner's Report are correct and this replacement conforms
o the rules of the ASME Code, Section XI.	.,
Type Code Symbol Stamp: Not Applicable	
Certificate Of Authorization No.: Not Applicable Expiration Date: Not Applicable	
	1
Prepared By Julaip Sug	Signed By Fuldy Suph  (PLE) Kuldip Singh - Program Lead Engineer (PLE)
Kuldip Singh - Program Lead Engineer	r (PLE) Kuldip Singh - Program Lead Engineer (PLE)
Date 6 (4 0)	Date6]14 01
CERTIFICATE	OF INSERVICE INSPECTION
the undersigned, holding a valid commissi (assal inspectors and the State of	ion issued by the National Board of Boiler and Pressure
essel Inspectors and the State of	and employed by have inspected the components
escribed in this Owner's Report during the	period to and
tate to the best of my knowledge and belief,	, the Owner has performed examinations and taken
orrective measures described in this Owne	r's Report in accordance with the requirements of the
SME Code, Section XI.	
ly signing this certificate neither the Inspect	tor nor his employer makes any warranty, expressed or
nplied, concerning the examinations and co	prrective measures described in this Owner's Report.
niury or property damage or a loss of any ki	mployer shall be liable in any manner for any personal ind arising from or connected with this inspection.
,,a., or property damage or a loss or any ki	nd ansing from or connected with this inspection.
	Commissions
Not Required - Replacement 1* NPS And Smaller	
Not Required - Replacement 1" NPS And Smaller Inspector's Signature  ate	National Board, State, and Endorsements

## 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. Mar	nufactured by	Dragon Valves,	Inc., 13457	Excelsior Dr	., Norwall	c, CA. 90	650
2. Mar	nufactured for	(Name and Address Energy Northwes	t, P.O. Box	968, Richland	d, WA. 993	352	
		(Name and Address of	Purchaser or Owner	r)			
	ation of Installatio	(Name and Address)		Loop, Richlan			
4. Purr	p or Valve	Valve		Inlet Size(ir	/8 Ou	tlet Size	3/8
	(a) Model No	(b) N Certificate Holder	's (c) Canadian	(11	ich)		(inch)
	Series No.	Serial	Registration	(d) Drawing		(f) Nat'l.	(g) Yea
	or Type	No.	No.	No.	(e) Class	8d. No.	Built
	670NOE65W						
(1)	670N056SW		N/A	17263	2	N/A	1999
(2) (3)		THru PB1328		Rev. N/C	<u> </u>		
(4)		FD1320		<del></del>			
(5)	<del> </del>				<del></del>		
(6)		CAS	-V-326	A SIN P	B 1323	····	
(7)				-, -, -, -, -, -, -, -, -, -, -, -, -, -	<u> </u>		
(8)				./ /		· · · · · · · · · · · · · · · · · · ·	
(9)	<del></del>		·	Juldi	b Lus	6	
(10)	<del></del>		<del></del>	!	(= 1.11		
	01 -1 **	•			6/11	'.	
· —	Globe Va		tion of somion for	hich equipment was de	( 8 Pcs.	)	
	Working Pressur sure Retaining Pie			,			
	Mark No.	Material	Spec. No.	Manufacti	urer	Remai	ks
(a) C	estings N/A						
_							
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-						<del></del>	
_						<del></del>	*****
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				!			
(b) Fo	orgings N/A		<del></del>				
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<sup>(1)</sup> For manually operated valves only.

<sup>\*</sup> 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.

### FORM NPV-1 (Rack)

	FURMI NIPV-	+ (Back)	
Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Boiting N/A			
		!	
			•
(d) Other Parts HT. 709423	ASME SA479 TY. 316	Carpenter Tech.	Body
	ASME SA564 GR. 630	Carpenter Tech.	Disc
	SME SA479 TY. 316	Carpenter Tech.	Bonnet
Hydrostatic test 3250 psi.	Disk Differential test pressure 2	400psi.	
· · · · · · · · · · · · · · · · · · ·			
(Date)  igned	ion NoN=1033 to t	use the <u>IV</u> symbo	(Dete)
	CERTIFICATION C	F DESIGN	
esign information on file at	Energy Northwest		
tress analysis report (Class 1 only	v) on file at N/A		
esign specifications certified by ( E State Reg	1) <u>Abbas A. Mostal</u> No. <u>28777</u>	<u>a</u>	
ress analysis certified by (1) N			
State Reg	. No		
) Signature not required. List nar	me only.		
	CERTIFICATE OF SHO	P INSPECTION	
the undersigned, holding a vali	d commission issued by the f	National Board of Boiler and Pr	essure Vessel Inspector
d the State or Province of	CALIFORNIA	_ and employed by H.S.B.	NSP. 9 1.43. CU.
HARTFORD, C		ne pump, or valve, described of my knowledge and belief, the N	
ructed this pump, or valve, in ac			Certificate Fronder (1999)
			d as impound appearant
		er makes any warranty, expresse her the inspector nor his employ	
e equipment described in this L anner for any personal injury or			
	$\alpha \alpha$		
$\frac{1}{2} \frac{1}{1} \frac{1}$	2013 Commiss	100 (A 15.20 )	B 9435N
(Inspector)	Commiss	(Nat'l Bd., State, Pro-	v. and No.)

Date: 06/13/01

Sheet: 1 Of 1

Unit: Not Applicable



## 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 Air System (CAS)

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
CAS(5)-1	WPPSS*	CAS(5)-1-P1	N/A	N/A	1984		Yes, Code Class 3
CAS-V-326B	Dragon Valves	PB1246	N/A	N/A	1995	Replaced	Yes, Code Class 2
CAS-V-326B	Dragon Valves	PB1324	N/A	N/A	1999	Replacement	Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing valve CAS-V-326B. The replacement work was performed as follows:
  - 1) Removed existing valve CAS-V-326B, Serial No PB1246.
  - 2) Removed existing tubing material such as nut, front ferrule, back ferrule, cap and tubing.
  - 3) Installed replacement tubing material such as nut, front ferrule, back ferrule, cap and tubing.
  - 4) Installed replacement valve CAS-V-326B, Serial No PB1324.
  - 5) Made required non-welded joints.
  - 6) Made required socket welds.
  - 7) Performed visual examination on the final socket welds. Visual examination results acceptable.

- 1) The existing ASME Code Stamped system in which the replacement valve CAS-V-326B, Serial No PB1324 was installed is Control Air System (CAS) system CAS(5)-1-P1. This system is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 2) The replacement valve CAS-V-326B, Serial No PB1324 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.
- 3) ASME Section III, Code Class 2 valve for ASME Section III, Code Class 3 application.

CERTIFICATE OF COMPLIANCE  We certify that the statements made in this Owner's Report are correct and this replacement 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 - Program Lead Engineer (PLE)  Date  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boild Vessel Inspectors and the State of	,
We certify that the statements made in this Owner's Report are correct and this replace 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 - Program Lead Engineer (PLE)  CERTIFICATE OF INSERVICE INSPECTION  If, the undersigned, holding a valid commission issued by the National Board of Boild Vessel Inspectors and the State of	324.
We certify that the statements made in this Owner's Report are correct and this replace 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 - Program Lead Engineer (PLE)  Cate Date Date State of Mathorization No.: Not Applicable  CERTIFICATE OF INSERVICE INSPECTION  In the undersigned, holding a valid commission issued by the National Board of Boile Vessel Inspectors and the State of and employed by have inspected in this Owner's Report during the period fescribed in this Owner's Report during the period state to the best of my knowledge and belief, the Owner has performed examination corrective measures described in this Owner's Report in accordance with the requiremental Code, Section XI.  By signing this certificate neither the Inspector nor his employer makes any warrant implied, concerning the examinations and corrective measures described in this Owner in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector	
CERTIFICATE OF INSERVICE INSPECTION  The undersigned, holding a valid commission issued by the National Board of Boild Sessel Inspectors and the State of my knowledge and belief, the Owner has performed examination sorrective measures described in this Owner's Report during the period to the Section XI.  Table Code, Section XI.  To the undersigned to my knowledge and belief, the Owner has performed examination in the section of the secti	
CERTIFICATE OF INSERVICE INSPECTION  the undersigned, holding a valid commission issued by the National Board of Boild  vessel Inspectors and the State of and employed by have inspected in this Owner's Report during the period to  state to the best of my knowledge and belief, the Owner has performed examination corrective measures described in this Owner's Report in accordance with the required SME Code, Section XI.  By signing this certificate neither the Inspector nor his employer makes any warrant mplied, concerning the examinations and corrective measures described in this Owner for the Inspector nor his employer shall be liable in any manner for the second content of the second content	ilacement <i>conforms</i>
CERTIFICATE OF INSERVICE INSPECTION  the undersigned, holding a valid commission issued by the National Board of Boild fessel Inspectors and the State of and employed by have inspected in this Owner's Report during the period to istate to the best of my knowledge and belief, the Owner has performed examination corrective measures described in this Owner's Report in accordance with the requirement of SME Code, Section XI.  By signing this certificate neither the Inspector nor his employer makes any warrant mplied, concerning the examinations and corrective measures described in this Owner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor his employer shall be liable in the Inspector nor hi	n Lead Engineer (PLE)
the undersigned, holding a valid commission issued by the National Board of Bollowsesel Inspectors and the State of and employed by have inspected in this Owner's Report during the period to to to to to to to	) [
Vessel Inspectors and the State of and employed by	
lescribed in this Owner's Report during the periodtototate to the best of my knowledge and belief, the Owner has performed examination corrective measures described in this Owner's Report in accordance with the requires SME Code, Section XI. By signing this certificate neither the Inspector nor his employer makes any warrant mplied, concerning the examinations and corrective measures described in this Owner the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the Inspector nor his employer shall be liable in any manner for the liabl	
state to the best of my knowledge and belief, the Owner has performed examination corrective measures described in this Owner's Report in accordance with the require ASME Code, Section XI. By signing this certificate neither the Inspector nor his employer makes any warrant mplied, concerning the examinations and corrective measures described in this Ow Furthermore, neither the Inspector nor his employer shall be liable in any manner for	
corrective measures described in this Owner's Report in accordance with the require ASME Code, Section XI.  By signing this certificate neither the Inspector nor his employer makes any warrant mplied, concerning the examinations and corrective measures described in this Ow Furthermore, neither the Inspector nor his employer shall be liable in any manner fo	
ASME Code, Section XI. By signing this certificate neither the Inspector nor his employer makes any warrant implied, concerning the examinations and corrective measures described in this Ow Furthermore, neither the Inspector nor his employer shall be liable in any manner fo	
By signing this certificate neither the Inspector nor his employer makes any warrant mplied, concerning the examinations and corrective measures described in this Ow Furthermore, neither the Inspector nor his employer shall be liable in any manner fo	illements of the
	Owner's Report. for any personal
NAME OF THE PROPERTY OF THE PR	•
Not Required - Replacement 1* NPS And Smaller Commissions Inspector's Signature National Board, State, a	and Endorsements
Date	

## 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. Ma	nufactured by _	Dragon Valves,	Inc., 13457 E	celsior Dr	, Norwall	CA. 90	650
2. <b>Ma</b>	nufactured for	Energy Northwes	t, P.O. Box 96	der) 8, Richland	, WA. 993	352	
3. Loc	ation of Installation	on WNP-2 North	Purchaser or Owner) Power Plant Lo				
4. Pur	mp or Valve	(Identic end Address)					3/8
		(b) N Certificate Holde	. Nominal In	(in	ch)	ilet Size	(inch)
	Series No.	Serial	_	Id Danie			
	or Type	No.	Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Yea Built
(1)	670N056SV	PB1321	N/A	17263	2	N/A	1999
(2)		THru		Rev. N/C		IV/A	1999
(3)		PB1328		NGV - IV C	·	<del></del>	· · · · · · · · · · · · · · · · · · ·
(4)							
(5)			Z 11 3 3 2 2				
(6)	<del></del>	- $CA$	S-V-326	B SIN F	B 1324	<u> </u>	· · · · · · · · · · · · · · · · · · ·
(7) (8)							
(9)	<del></del>		12.	6 - 1/4 -	010		
(10)			- 40	say so	رومي		······································
				611	101		
	Globe V			•	(8 Pcs.	)	
		(Brief descrip	tion of service for which	equipment was de:	rigned)		
	sure Retaining Pi	eces	<del></del>			-	
	Mark No.	Material	Spec. No.	Manufactu	rer	Remar	ks .
(a) C	Castings N/A			-			
-						······································	
-	<del></del>						
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(b) F	orgings N/A						
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(b) F	orgings N/A						
(b) F	orgings N/A						

<sup>(1)</sup> For manually operated valves only.

<sup>•</sup> 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.

### FORM NPV-1 (Back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Boiting N/A			1
(c) Boiling N/A			
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			!
			·
			<del></del>
			·
(d) Other Parts			
HT. 709423	ASME SA479 TY. 316	Carpenter Tech.	Body
HT. 710481	ASME SA564 GR. 630	Carpenter Tech.	Disc
HT. 715893	ASME SA479 TY. 316	Carpenter Tech.	Bonnet
		Ì	
Hydrostatic test 3250 psi	. Disk Differential test pressure 24	400	
рз.	. Disk Differential test pressure	psi .	
(N Certificate Holo	, Inc. der) ization No. N-1033 to u		expires   5/6/02   (Dete)
· · · · · · · · · · · · · · · · · · ·	<del></del>		
	CERTIFICATION O	F DESIGN	
Danima (afarana) - (1)	Fneray Northwest		
Design information on file at			
Stress analysis report (Class 1)	only) on file at <u>N/A</u>		
2	3 h h h = 3 15 - 1 - 1		
·	oy(1) Abbas A. Mostal:	<u>a</u>	
	Reg. No. 28777		
Stress analysis certified by (1)			
PE State	1eg. No		
1) Signature not required. List	name only.		
	CERTIFICATE OF SHO	P INCRECTION	
	CENTIFICATE OF SHO	PINSPECTION	
, the undersigned, holding a v	valid commission issued by the N	lational Board of Boiler and Pre	ssure Vessel Inspectors
nd the State or Province of		and employed by H.S.B. I	NSP. & INS. CO.
HARTFORD,		e pump, or valve, described i	n this Data Report or
1:101:	9 401, and state that to the best o	f my knowledge and belief, the N C	ertificate Holder h <b>as</b> con
tructed this pump, or valve, in	accordance with the ASME Code.	Section III.	
	ner the Inspector nor his employer		
	s Data Report. Furthermore, neith		
renner for any personal injury	or property damage or a loss of a	ny kind arising from or connecte	d with this inspection.
Date	19 4	0	-1 01121- N1
Carlo F	12019 Commission	Ons (4/526 N	10 4450 /V
(inspector)		(Nat'l Bd., State, Prov.	and No.

Date: 06/13/01

Sheet: 1 Of 1

Unit: Not Applicable



## 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 Air System (CAS)

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
CAS(5)-1	WPPSS *	CAS(5)-1-P1	N/A	N/A	1984		Yes, Code Class 3
CAS-V-326C	Dragon Valves	PB1248	N/A	N/A	1995	Replaced	Yes, Code Class 2
CAS-V-326C	Dragon Valves	PB1322	N/A	N/A	1999	Replacement	Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing valve CAS-V-326C. The replacement work was performed as follows:
  - 1) Removed existing valve CAS-V-326C, Serial No PB1248.
  - 2) Removed existing tubing material such as nut, front ferrule, back ferrule, cap and tubing.
  - 3) Installed replacement tubing material such as nut, front ferrule, back ferrule, cap and tubing.
  - 4) Installed replacement valve CAS-V-326C, Serial No PB1322.
  - 5) Made required non-welded joints.
  - 6) Made required socket welds.
  - 7) Performed visual examination on the final socket welds. Visual examination results acceptable.

- 1) The existing ASME Code Stamped system in which the replacement valve CAS-V-326C, Serial No PB1322 was installed is Control Air System (CAS) system CAS(5)-1-P1. This system is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 2) The replacement valve CAS-V-326C, Serial No PB1322 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.
- 3) ASME Section III, Code Class 2 valve for ASME Section III, Code Class 3 application.

ests Conducted: Hydrostatic Pneuma Test Pressure: Psig Component Design Pressur	Test Temperature: ° F
Remarks: See attached NPV-1 Code Data Report for the	he replacement valve CAS-V-326C, Serial No PB1322.
CERTIFIC	CATE OF COMPLIANCE
to the rules of the ASME Code, Section Xi.	Owner's Report are correct and this replacement conforms
Type Code Symbol Stamp: Not Applicable	
Certificate Of Authorization No.: Not Applicable Expiration Date: Not Applicable	
	M. D. (20)
Prepared By Ludip Suc	er (PLE)  Signed By  Kuldip Singh Program Lead Engineer (PLE)
Kuldip Singn - Program Lead Enginee	Fr (PLE) Kuldip Singht Program Lead Engineer (PLE)
Date 6/14/01	Date6/14/01
CERTIFICATE	OF INSERVICE INSPECTION
	ion issued by the National Board of Boiler and Pressure and employed by
described in the Control of the Cont	have inspected the components
	period and for the Owner has performed examinations and taken
correctiv <mark>e measures</mark> described in this Owne	er's Report in accordance with the requirements of the
ASME Code, Section XI. By signing this certificate neither the Inspec	ctor nor his employer makes any warranty, expressed or
	corrective measures described in this Owner's Report.
Furthermore, neither the Inspector nor his e	mployer shall be liable in any manner for any personal
injury or property damage or a loss of any k	arising from or connected with this inspection.
Not Required - Replacement 1* NPS And Smaller	Commissions
inspector's Signature	National Board, State, and Endorsements
~ 4	
Date	

## 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.	Manu	ufactured by _	Dragon Valves, I	nc., 13457 F	xcelsior Dr	Norwalk	- C3 90	650
		•						0.00
۷.	wanu	factured for _	(Name and Address of	Purchaser or Owners	68, Richlan	d, WA. 993	52	
3.	Locat	ion of Installati	ion WNP-2 North P (Name and Address)	ower Plant L	oop, Richla	nd, WA. 99	352	
4.	Pump	or Valve	Valve		nlet Size <u>' 3</u>	/8 Out	let Size	3/8
		(a) Model No.,	(b) N Certificate Holder'	s (c) Canadian	/44	iCity		(incn)
		Series No.	Serial	Registration	(d) Drawing		(f) Nat'l.	(a) Year
		or Type	No.	No.	No.	(e) Class	Bd. No.	Built
	(1)	670N056ST	W PB1321	N/A	17263	2	N/A	1999
	(2)		THru		<del></del>	2		
	(3)		PB1328					
	(4)							
	(5)	<del></del>		A 17 17				
	(6)		<i>OA</i>	S-V-326	CSIN	PB 132	2	
	(7)							
	(8)				<del></del>	0, 0		
	(9) (10)					mb 🛜	465	
	(10)		······································			· · · · · · · · · · · · · · · · · · ·	ul Au	
5.		Globe V	/alve	•			,,101	
٠.		<u> </u>		on of service for which	h equipment was de	( 8 Pcs.	)	
s.	Desico	Conditions _	200	2.42	•			
			(Pressure)	Nergy Northwest, P.O. Box 968, Richland, WA. 99352  (Name and Address of Purchaser or Owner)  WNP-2 North Power Plant Loop, Richland, WA. 99352  (Name and Address)  Valve  Nominal Inlet Size  (Inch)  No Certificate Holder's (c) Canadian  Serial Registration (d) Drawing (f) Nat'l. (g) Yein No.  No.  No.  No.  No.  No.  No.  No.	(1)			
		Vorking Pressu		Set, P.O. Bervice for which equipment was designed)  Position of service for which equipment was designed)  Position of Service for which equipment was designed)  Position of Service for No. Manufacturer Remarks  Position of Service No. Manufacturer Remarks				
8.	Pressu	ire Retaining Pi	ieces	٠.				
		Mark No.	Material S	Spec. No.	Manufacti	urer	Remar	ts ·
	(a) Cas	stings N/A						
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	(b) For	gings N/A				<del></del>		
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<sup>(1)</sup> For manually operated valves only.

<sup>\*</sup> 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.

### FORM NPV-1 (Back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Boiting N/A			
		<del>-  </del>	
			-
(d) Other Page			
	ASME SA470 TV 316	Comment on Month	Podre
			· · · · · · · · · · · · · · · · · · ·
			†
	ADII	carpenter recir-	Domiec
(c) Bolting N/A  Id) Other Parts  HT. 709423 ASME SA479 TV. 316 Carpenter Tech. Body HT. 710481 ASME SA564 GR. 630 Carpenter Tech. Disc HT. 715893 ASME SA479 TY. 316 Carpenter Tech. Bornet  EXAMPLE SA479 TY. 316 Carpenter Tech. Bornet  CERTIFICATE OF COMPLIANCE  (c) certify that the statements made in this report are correct and that this pump, or valve, conforms to the runsinstruction of the ASME Code for Nuclear Power Plant Components Section III, Div. I. Edition 1974.  Godenia S.775 Code Case No N/A Date November 10, 1999  In ASME Certificate on Authorization No N-1033 to use the N symbol expires 5/6/03 (Dine)  CERTIFICATION OF DESIGN   •			
Our ASME Certificate of Author	ozation No. <u>N-1033</u> to u	se the N symbo	(Date)
	CERTIFICATION O	F DESIGN	
0		DESIGN	
Stress analysis report (Class )	only) on file at <u>N/A</u>		
Design specifications certified t	av (1) Abbas A Mostal:		
PE State	Reg. No		
	CERTIFICATE OF SHOW	PINSPECTION	
the understand has a			
nd the State of Province of	Alid commission issued by the N	ational Board of Boiler and Pre	ssure Vessel Inspectors
	<b>~</b>		
11.10		pump, or valve, described i	n this Data Report on
tructed this pump, or valve, in	accordance with the ASME Code	my knowledge and belief, the N C	ertificate Holder has con-
by signing this certificate, neith	er the Inspector nor his employer	makes any warranty, expressed	or implied, concerning
ne equipment described in this	s Data Report. Furthermore, neithe	er the inspector nor his employe	er shall be liable in any
1 / . I/)	or property damage or a loss of ar	ly kind arising from or connected	d with this inspection.
Date 7 7	19 - 4 - 7	0 11 100 10 11	a 01125- N1
(Inspector)	12ey Commissio	ns (4/520 N	0 7455 /
(inspector)	ŗ	(Nat'l Bd., State, Prov.	and No.)

Date: 06/13/01

Sheet: 1 Of 1

Unit: Not Applicable



## 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 Air System (CAS)

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
CAS(5)-1	WPPSS *	CAS(5)-1-P1	N/A	N/A	1984		Yes, Code Class 3
CAS-V-326D	Dragon Valves	PB1247	N/A	N/A	1995	Replaced	Yes, Code Class 2
CAS-V-326D	Dragon Valves	PB1321	N/A	N/A	1999	Replacement	Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing valve CAS-V-326D. The replacement work was performed as follows:
  - 1) Removed existing valve CAS-V-326D, Serial No PB1247.
  - 2) Removed existing tubing material such as nut, front ferrule, back ferrule, cap and tubing.
  - 3) Installed replacement tubing material such as nut, front ferrule, back ferrule, cap and tubing.
  - 4) Installed replacement valve CAS-V-326D, Serial No PB1321.
  - 5) Made required non-welded joints.
  - 6) Made required socket welds.
  - 7) Performed visual examination on the final socket welds. Visual examination results acceptable.

- 1) The existing ASME Code Stamped system in which the replacement valve CAS-V-326D, Serial No PB1321 was installed is Control Air System (CAS) system CAS(5)-1-P1. This system is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 2) The replacement valve CAS-V-326D, Serial No PB1321 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.
- 3) ASME Section III, Code Class 2 valve for ASME Section III, Code Class 3 application.

	d: Hydrostatic Pneum Test Pressure: Psig Component Design Press	natic Nominal Operating Pressure Other X N  Test Temperature: ° F  Sure: Psig Temperature: ° F
<b>emarks:</b> See at	tached NPV-1 Code Data Report fo	or the replacement valve CAS-V-326D, Serial No PB1321.
	CERTI	FICATE OF COMPLIANCE
o the rules of	the ASME Code, Section XI	is Owner's Report are correct and this replacement conforms
Certificate Of A	<b>mbol Stamp:</b> Not Applicable <b>Authorization No.:</b> Not Applical	uble
Expiration Dat		
Prepared By _	Kuldip Singh - Program Lead Engir	Signed By Kuldin Suph heer (PLE) Kuldip Singh - Program Lead Engineer (PLE)  Date 6 14 01
Date	6/14/01	Date 6)14(01
	CERTIFICA	TE OF INSERVICE INSPECTION
	ned, holding a valid commi	ission issued by the National Board of Boiler and Pressure and employed by
<u> </u>		have inspected the components
		the period to and
		lief, the Owner has performed examinations and taken vner's Report in accordance with the requirements of the
SME Code, S		The orthogon in accordance that the requirements of the
By signing this	s certificate neither the Insp	pector nor his employer makes any warranty, expressed or
		d corrective measures described in this Owner's Report.
		s employer shall be liable in any manner for any personal y kind arising from or connected with this inspection.
Not Required - Re	placement 1" NPS And Smaller	Commissions
		National Board, State, and Endorsements
	spector's Signature	

## 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. Ma	nufactured by _	Dragon Valves,	Inc., 13457 H	excelsior Dr.	, Norwall	c, CA. 90	0650
2. Ma	nufactured for _	Energy Northwes	t, P.O. Box	older) 968, Richland	. WA. 99	352	
3. Loc	ation of Installati						
		(Name and Address)					
4. Pun	np or Valve	Valve		nlet Size <u>' 3/</u>	<u>′8</u> Ou	tlet Size	3/8
	(a) Model No.,	(b) N Certificate Holde	r's (c) Canadian	(11)	ch)		(inch)
	anufactured for E cation of Installation mp or Valve  (a) Model No., (b Series No. or Type  670N056SW	Serial	Registration	(d) Drawing		(f) Nat'l.	(g) Yea
	or Type	(Name and Address Northwent (Name and Address Name and Address Valve)  Installation (Name and Address Valve)  Odel No., (b) N Certificate Hold (Name and Address No. Serial Type No.  NO56SW PB1321 THru PB1328  Compared to the Compared to t	No.	No.	(e) Class	Bd. No.	Built
(1)	670N056ST	V PB1321	N/A	17062			
(2)			N/A	17263	2	N/A	1999
(3)				Rev. N/C			
(4)					<del></del>		
(5)	<del></del>						
(6)		<u> </u>	1S-V-326	D. SIN PE	31321	_	
(7)							
(8) (9)				77 1 0 1 0	0 ,		
(10)				ways &	<u>up 5</u>		
(10)	*			6/12	101		<del></del>
·	Globe V	alve	•		/ 0 Dee	`	
	<u> </u>		ition of service for which	h equipment was des	(8 Pcs.	<i></i>	
		eces .		· **····			
	Mark No.	Material	Spec. No.	Manufactu	rer	Remar	ks
(a) C.	astings N/A						
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(b) Fo	orgings N/A		====			<del></del>	<u> </u>
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<sup>(1)</sup> For manually operated valves only.

<sup>\*</sup> 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.

### FORM NPV-1 (Back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Boiting N/A			
(4) (2) - 5			
(d) Other Parts HT. 709423	ACME C3/470 my 216	Comment on Month	Poder
HT. 710481	ASME SA479 TY. 316 ASME SA564 GR. 630	Carpenter Tech.	Body Disc
HT. 715893	ASME SA479 TY. 316	Carpenter Tech.	Bonnet
9. Hydrostatic test 3250 psi	Disk Differential test pressure 24	400	<u> </u>
		psi .	
Signed <u>Dragon Valves</u> (N Certificate Hold	, Inc. to deri No.	or Mark a. In	expires 5/6/02 (Dete)
	CERTIFICATION O	F DESIGN	
Design information on file at	Energy Northwest		
Stress analysis report (Class 1	only) on file at N/A		
	ov (1) Abbas A. Mostala	<u>a</u>	
	Reg. No. <u>28777</u> N/A		
PE State F			
(1) Signature not required. List			
	CERTIFICATE OF SHO	P INSPECTION	
l, the undersigned, holding a v	valid commission issued by the N		
and the State or Province of $\_\_$	CALIFORNIA	and employed by H.S.B. II	NSP. % INS. CO.
ofHARTFORD,	CT. have inspected the	numn or valve described a	a this Data Report on
	9 <u>CfC1</u> , and state that to the best of accordance with the ASME Code.	f my knowledge and belief, the N C	ertificate Holder h <b>as</b> con-
	ner the inspector nor his employer		or implied concession
the equipment described in this	s Data Report. Furthermore, neithi	er the inspector nor his employe	er shall be liable in any
manner for any personal injury	or property damage or a loss of ar	ny kind arising from or connected	d with this inspection.
Date 7	19 7 7	011521011	12 QU25 N.
(Inspector)	12 Commission	Ons (Nat'l Bd., State, Prov.	and No.)
		= = ., 0.0.0, 1107.	

Date: 06/28/01

Sheet: 1 Of 1

**Unit:** Not Applicable

## **EMERGY**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)-2A	WPPSS *	RHR(1)-2A-P1	N/A	N/A	1983		Yes, Code Class 2
RHR-325 (S)	Pacific Scientific	119	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-325 (R)	NPS	NA-2765-002-2	N/A	N/A	1990	Replacement	No, Code Class***
RHR-326(E) (S)	Pacific Scientific	392	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-326(E) (R)	NPS	NA-2765-001-13	N/A	N/A	1990	Replacement	No, Code Class***
RHR-326(W) (S)	Pacific Scientific	385	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-326(W) (R)	NPS	NA-2765-001-2	N/A	N/A	1990	Replacement	No, Code Class***
RHR-332 (S)	Pacific Scientific	385	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-332 (R)	Lisega	1234-1-3	N/A	N/A	1992	Replacement	No, Code Class***
RHR-333 (S)	Pacific Scientific	385	N/A	N/A	1978	Replaced	Yes, Code Class**
RHR-333 (R)	NPS	NA-2765-002-12	N/A	N/A	1990	Replacement	No, Code Class***

- 7. Description Of Work Performed: Replaced existing snubbers with rigid struts for supports RHR-325, RHR-326, RHR-332 and RHR-333. The replacement work was performed as follows:
  - 1) Removed existing snubbers from the supports.
  - 2) Installed replacement rigid struts for the supports reusing the existing parts.
  - 3) Torque the rigid strut assemblies to the required torque values.
  - 4) Verified that the replacement rigid struts were properly installed and that all fasteners were secure.
  - 5) Perform VT-3 visual examination on the supports to satisfy ISI (PSI) requirements. VT-3 visual examination results acceptable.

- 1) (S) Snubber
- 2) (R) Rigid strut
- 3) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 4) \*\* ASME Section III, Code Class NF snubbers.
- 5) \*\*\* ASME Section III, Code Class NF (1) rigid struts. ASME Section III, Code Class NF(1) rigid struts for ASME Section III, Code Class NF(2) application.
- 6) The existing ASME Code Stamped piping system in which the ASME Section III, Code Class NF (1) replacement rigid struts were installed is Residual Heat Removal (RHR) piping system RHR(1)-2A-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.

	i: Hydrostatic Pneumatic Mominal Operating Pressure Other X No.  Test Pressure: Psig Test Temperature: ° F  Component Design Pressure: Psig Temperature: ° F
Remarks: See atta Support No RHR-325 RHR-326(E) RHR-326(W) RHR-333	ached NF-2 Code Data Reports for the following replacement rigid struts:  Serial No NA-2765-002-2 NA-2765-001-13 NA-2765-001-2 NA-2765-002-12
	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 Syr	mbol Stamp: Not Applicable
	Authorization No.: Not Applicable
Expiration Dat	e: Not Applicable
	Mich Colo al land Sinh
Prepared By _	Signed By Kuldin Singh - Program Lead Engineer (PLE)
	Kuldip Singh - Program Lead Engineer (PLE)  Kuldip Singh - Program Lead Engineer (PLE)
Date	6 28 0 Date 6 28 01
	• •
	CERTIFICATE OF INSERVICE INSPECTION
Johnston, Rhod period Owner has pe in accordance	tors and the State of Washington and employed by Factory Mutual Insurance Company of le island have inspected the components described in this Owner's Report during the state to the best of my knowledge and belief, the reformed examinations and taken corrective measures described in this Owner's Report with the requirements of the ASME Code, Section XI.
Johnston, Rhod period Owner has pe in accordance By signing thi implied, conce	tors and the State of Washington and employed by Factory Mutual historiance company of the Island have inspected the components described in this Owner's Report during the and state to the best of my knowledge and belief, the reformed examinations and taken corrective measures described in this Owner's Report with the requirements of the ASME Code, Section XI. Is certificate neither the inspector nor his employer makes any warranty, expressed or erning the examinations and corrective measures described in this Owner's Report. In neither the inspector nor his employer shall be liable in any manner for any personal verty damage or a loss of any kind arising from or connected with this inspection.
Vessel Inspect Johnston, Rhod period	tors and the State of Washington and employed by Factory Mutual Insurance Company of the Island have inspected the components described in this Owner's Report during the and state to the best of my knowledge and belief, the reformed examinations and taken corrective measures described in this Owner's Report with the requirements of the ASME Code, Section XI.  Is certificate neither the inspector nor his employer makes any warranty, expressed or erning the examinations and corrective measures described in this Owner's Report.
Vessel Inspect Johnston, Rhod period	tors and the State of Washington and employed by Factory Mutual Insurance Company of the Island have inspected the components described in this Owner's Report during the and state to the best of my knowledge and belief, the reformed examinations and taken corrective measures described in this Owner's Report with the requirements of the ASME Code, Section XI. Is certificate neither the Inspector nor his employer makes any warranty, expressed or serning the examinations and corrective measures described in this Owner's Report. The inspector nor his employer shall be liable in any manner for any personal perty damage or a loss of any kind arising from or connected with this inspection.

FORM NF-2 NPT CERTIFICATE HOLDERS' PARTIAL DATA REPORT FOR PARTS FOR COMPONENT SUPPORT\* As Require ... the Provisions of the ASME Code Rules, .... tion III, Division 1 NPS INDUSTRIES, INC., 10420 METRIC BOULEVARD, AUSTIN, TX (Name and address of NPT Certificate Holder) WASHINGTON PUBLIC POWER SUPPLY SYSTEM, P.O. BOX 968, RICHLAND, WA 99352 (Name and address of purchaser or owner) WNP-2 OPS WHS COMPLEX, WHS#1 N. PWR. PLANT LOOP, RICHLAND, WA 3. Location of Installation (f) (g) (a) (c) (d) (e) (b) 4 National Part Part Canadian Roard Year Description Serial Registration Drawing Class No. Built of Part No. No. No. N/A 1990 1 N/A SPN-040 REPLACEMENT (1) REV. 0 **SNUBBER** (2) SMR-1/4 (3) NA-2765-001-13 -2765-001-2 \*NA-2765-001-1 THRU Date 5-18-4 NA-2765-001-15 (9) (10) CERTIFICATE OF COMPLIANCE We certify that the statements made in this report are correct and that these component support parts conform to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Division 1, Edition 1971 . Addenda WINTER 1973 Code Case no. N247 APRIL 25 19 90 . Signed NPS INDUSTRIES SANDY REYNOLDS Symbol expires JULY 12, Our ASME Certificate of Authorization No. N-2689 NPT 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 and employed by COMMERCIAL UNION BOSTON, MASSACHUSETTS TEXAS. Province of\_\_\_ have inspected the parts for the component supports described in this Data Report on 70 , and state that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component support parts 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. Commissions

<sup>\*</sup>Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8½ in. x 11 in., (2) information on items 1-4 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at the top of this form.

. F	ORM NF-2 N	As Require	y the Provisions o	TIAL DATA REPOR	T FOR PARTS F Rules, tion	OR COMPONE	CAN No. 2	r• 2-1647.
1.	Manufactured t		TRIES, INC.,	10420 METRIC	BOULEVARD,			
2.	Manufactured (	washingto	N PUBLIC POWE	ER SUPPLY SYST	EM, P.O. BO	OX 968, RIC	HLAND, WA	<u>9</u> 9352
3.	Location of Ins	stallationWNP = 2		PLEX, WHS#1 N.		LOOP, RIC	HLAND, WA	99352
4.	(a) Part	(b) Canadian	(c) Part	(d)	(e)	(f) National	(g)	
	Serial No.	Registration No.	Drawing No.	Description of Part	Class	Board No.	Year Built	
	(1)	N/A	SPN-040	REPLACEMENT	1	N/A	1990	
	(2)		REV. O	SNUBBER	<del></del>			
	(3)		<del></del>	SMR-1/2		_		
	(4)			1 NA-276				
			R-333, SI	N NA-27	65-002-	12		
		765-002-1	····					
	(7) THRU		Culc	Eng Sups	VERIFIED &	CCEPTED - P	·	<del>-</del>
	(8) NA-27	65-002-15		6)28(01		Di Incher	tor Date 5	118/90
	(9)		<del></del>		LEVEL J	M.I. IIIOPO		<u></u>
	(10)						*	
		·		NATE OF GO14011			· · · · · · · · · · · · · · · · · · ·	$\neg$
			CERTIFIC	CATE OF COMPLIA	ANCE			
tio		Code for Nuclear P		rect and that these com nts, Section III, Divisio				
Da	te APRIL	2 <u>5</u> 19 90 .	Signed NPS IN	OUSTRIES, INC.	_ by SANI	DY REYNOLDS		
٥	or ASME Certific	cate of Authorizati	on No. <u>N-2689</u>	to use the NPT		mbol expires JUL	Y 12, 1991	
			CERTIFICA	TE OF SHOP INS	PECTION	<u>.</u>		
•	~		and employed by C	the National Board of OMMERCIAL UNIC	<u>)N</u> of B	<u>OSTON, MASS</u>	ACHUSETTS	
	4/25	19 50 200		pected the parts for the of my knowledge and I				
co	mponent suppor			de for Nuclear Power				
ρ.,	einninn this as	prificata neisher s	he Inspector nor his	employer makes any	warranty, expres	sed or implied o	oncerning the c	om.
ро	nent supports	described in the	nis Data Report. F	urthermore neither	the Inspector n	or his employe	r shall be lia	
in	any manner for	any personal injur	y or property damage	or a loss of any kind a	rising from or con	nected with this in	spection.	
Da	ne <u>4/6</u>	75/90 A	Darl		- 0 -	,		

\_ Commissions \_

(Nat'l Board, State, Province, and No.)

<sup>\*</sup>Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8½ in. x 11 in., (2) information on items 1-4 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at the top of this form.

Date: 06/28/01

Sheet: 1 Of 1

Unit: Not Applicable



## 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)-2B	WPPSS*	RHR(1)-2B-P1	N/A	N/A	1984		Yes, Code Class 2
RHR-442 (S)	Pacific Scientific	4005	N/A	N/A	1978	Replaced	No, Code Class**
RHR-442 (R)	NPS	NA-2765-002-9	N/A	N/A	1990	Replacement	No, Code Class***
RHR-443 (S)	Pacific Scientific	2156	N/A	· N/A	1977	Replaced	Yes, Code Class**
RHR-443 (R)	NPS	NA-2765-002-8	N/A	N/A	1990	Replacement	No, Code Class***
RHR-448 (S)	Pacific Scientific	4019	N/A	N/A	1978	Replaced	No, Code Class**
RHR-448 (R)	NPS	NA-2765-002-10	N/A	N/A	1990	Replacement	No, Code Class***
RHR-453 (S)	Pacific Scientific	6210	N/A	N/A	1978	Replaced	No, Code Class**
RHR-453 (R)	NPS	NA-2765-001-3	N/A	N/A	1990	Replacement	No, Code Class***

- 7. Description Of Work Performed: Replaced existing snubbers with rigid struts for supports RHR-442, RHR-443, RHR-448 and RHR-453. The replacement work was performed as follows:
  - 1) Removed existing snubbers from the supports.
  - 2) Installed replacement rigid struts for the supports reusing the existing parts.
  - 3) Torque the rigid strut assemblies to the required torque values.
  - 4) Verified that the replacement rigid struts were properly installed and that all fasteners were secure.
  - 5) Perform VT-3 visual examination on the supports to satisfy ISI (PSI) requirements. VT-3 visual examination results acceptable.

- 1) (S) Snubber
- 2) (R) Rigid strut
- 3) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 4) \*\* ASME Section III, Code Class NF snubbers.
- 5) \*\*\* ASME Section III, Code Class NF (1) rigid struts. ASME Section III, Code Class NF(1) rigid struts for ASME Section III, Code Class NF(2) application.
- 6) The existing ASME Code Stamped piping system in which the ASME Section III, Code Class NF (1) replacement rigid struts were installed is Residual Heat Removal (RHR) piping system RHR(1)-2B-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.

Tests Conducted	l: Hydrostatic Pneumatic Test Pressure: Psig Component Design Pressure: Psig	Test	ating Pressure Other X None Temperature: ° F Derature: ° F
Remarks: See atta Support No RHR-442 RHR-443 RHR-448 RHR-453	ached NF-2 Code Data Reports for the followin <u>Serial No</u> NA-2765-002-9 NA-2765-002-8 NA-2765-001-3	g replacement rigid	struts:
	CERTIFICATE (	OF COMPLIAN	CE
to the rules of Type Code Syr	the statements made in this Owner the ASME Code, Section XI. mbol Stamp: Not Applicable Authorization No.: Not Applicable	s Report are co	prrect and this replacement conforms
Prepared By	Kuldip Singh - Program Lead Engineer (PLE)	_ Signed By	Kuldip Singh - Program Lead Engineer (PLE)  (6) 28 0 1
	CERTIFICATE OF IN	SERVICE INSI	PECTION
Vessel Inspection, Rhod period Solution, Rhod Period Pe	tors and the State of Washington and elsland have inspected the compon	sued by the Nat employed by F ents described of state to the b rective measur Code, Section or his employer tive measures of	ional Board of Boller and Pressure actory Mutual Insurance Company of in this Owner's Report during the est of my knowledge and belief, the res described in this Owner's Report XI. makes any warranty, expressed or lescribed in this Owner's Report. Ile in any manner for any personal
11 // Ir	nspector's Signature	Commissions <u> </u>	National Board, State, and Endorsements
Date 7/2	14/01		

FORM NF-2 NPT CERTIFICATE HOLDERS' PARTIAL DATA REPORT FOR PARTS FOR COMPONENT SUPPORT.

As Require ... the Provisions of the ASME Co. 1. 2. As Require the Provisions of the ASME Code Rules, tion III, Division 1

1.	Manufactured by	NPS INDUST	TRIES, INC.,	10420 METRIC	BOULEVARD,	AUSTIN, TX	78758	
2.	Manufactured fo	, WASHINGTO	N PUBLIC POW	ER SUPPLY SYS	TEM, P.O. B	OX 968, RIC	HLAND, WA	<u>9</u> 9352
3.	Location of Inst	allation WNP-2				T LOOP, RIC	HLAND, WA	99352
4.	(a) Part Serial	(b) Canadian Registration	(c) Part Drawing	(d) Description	(e)	(f) National Board	(g) Year	
	*	N/A	No. SPN-040	Of Part	Class 1	No.	Built	
	· · · · · · · · · · · · · · · · · · ·				1	N/A	1990	<del></del>
		•			· · <del>- · · · · · · · · · · · · · · · · ·</del>			
	(4)		RHR- 4	<del></del>	JA-2765	-001-3	·-	<del></del>
	(5)				<del></del>			
	(6) <u>*NA-27</u>	65-001-1	4	endis Luci	>			• :
	(7) THRU			6/28/01	VERIFIED & AC	CEPTED QX		
	(8) NA-276	55-001-15			I FVFI 15	R1 Inspecto	r Date 5-1	8-46
	(9)							<del></del>
	CERTIFICATE OF COMPLIANCE    CERTIFICATE OF COMPLIANCE   C							
tio Co Da	n of the ASME C de Case no. <u>N2</u> te <u>APRIL</u> 2	ode for Nuclear Po 47	n this report are cor wer Plant Componer Signed <u>NPS IN</u> INPT (	DUSTRIES, INC. Certificate Holder)  to use the NPT	by SANE	Addenda W	INTER 1973 (Date)  Y 12, 1991	uc- 
			CERTIFICA	TE OF SHOP INS	PECTION			
Pro	17/25	ASa	nd employed by <u>Cl</u> have insi- late that to the best	OMMERCIAL UNIC sected the parts for the of my knowledge and	ON of B( e component supplement belief the NPT Cert	OSTON, MASS. orts described in dificate Holder ha	ACHUSETTS this Data Report	en
POI	nent supports	described in this	s Data Report. F	urthermore neither	the inspector no	or his employer	shall be lia	ı
Sig	ned on	eS for	ell .	Commissions 7	Ex 80 3	State, Province, an	d No.)	_

<sup>\*</sup>Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8½ in, x 11 in., (2) information on items 1-4 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at the top of this form.

	As R	equire y t	he Provisions	of the ASME Co	de Rules,	tion III, Divisio	on 1 PLAN No	
1.	Manufactured by NP	S INDUSTR		10420 METR			TX 78758	
2.	Manufactured for WA	SHINGTON	PUBLIC POW		YSTEM, P.	D. BOX 968,	RICHLAND, WA	99352
3.	Location of Installation	WNP-2 0					RICHLAND, WA	99352
4.	Part Can	b) adian	(c) Part	(d)	(e)	(f) Nationa	(g)	
	·	tration o.	Drawing No.	Description of Part	Class	Board No.	Year Built	
	(1) * N/	Α	SPN-040	REPLACEMEN	IT 1	N/A	1990	
	(2)		REV. O	SNUBBER				·····
	(3)			SMR-1/2				
	(4)	• <u></u>	PHR-44	2 S N 1	VA- 27	65-002-	.9	
	(5)			3 SN 1				
	*NA-2765- (	002-1		48 SIN				
	(7) THRU			<del>- , - , - , - , - , - , - , - , - , - ,</del>		The same of the same of the same of		,
	(8) NA-2765-00	02-15	Durch	Sub	VERIF	IED & ACCEPTED -	1	-()-(10)
			- uning	0)28/01	LEVE	R.I.	Inspector Date	5118190
	(9)			6)28/01		3		
	(10)							<del></del>
		<del> </del>	CERTIF	CATE OF COM	PLIANCE			
	e certify that the statem on of the ASME Code for							
	ode Case no. <u>N247</u>		er Plant Componi	ents, Section III, Di	vision 1, Edition	n 1571 . Adde	(Date)	<u>.</u> .
Đ	ne APRIL 25	19 <u>90</u> . s <sub>1</sub>	ned NPS IN	IDUSTRIES, I	NC. by	SANDY REYNO	NI DS	
٥	or ASME Certificate of	Authorization f			NPT (NPT)		JULY 12, 199	91
			CERTIFICA	ATE OF SHOP I	NSPECTION			$\overline{}$
	the undersigned, holdin	a a uslid come	niccion iccuad bu	the National Boar	d of Boiler and	Practica Vaccal to	unestore and the St	
r. Pr	ovince of TEXAS		employed by	COMMERCIAL U	NION	BOSTON, I	MASSACHUSETTS  bed in this Data Rep	<u>S</u>
_	Y/25 .19	50 and state					der has constructed	
co	mponent support parts						•	
B	signing this certificate	e, neither the	Inspector nor hi	s employer makes	any warranty.	expressed or impl	ied, concerning the	com-
PC	nent supports descri	ibed in this	Data Report.	Furthermore neith	er the Inspe	ctor nor his em	ployer shall be i	
in	any manner for any per	rsonal injury or	property damage	e or a loss of any ki	nd arising from	or connected with	this inspection.	
D	ne 4/85/	40 A 1	9		_ ~	. =		
	(/ //)	- 1			10	~ <i>~</i>		I

Commissions -

(Nat'l Board, State, Province, and No.)

<sup>\*</sup>Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8½ in. x 11 in., (2) information on items 1-4 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at the top of this form.

Date: 08/07/01

Sheet: 1 Of 1

Unit: Not Applicable



#### 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 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
RHR-HX-1A	Delta Southern	35009-74-1	3489	N/A	1974		Yes, Code Class 2

- 7. Description Of Work Performed: Fabricated spare tube plugs for heat exchanger. The work was performed as follows
  - 1) Cut bar material to machine spare the tube plugs See Note 1.
  - 2) Machined twelve (12) spare tube plugs to the required dimensions See Note 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) Residual Heat Removal heat exchanger RHR-HX-1A tubes were due for eddy current (EC) examination during R-15 outage. ASME Section XI Plan No 2-1656 was issued to machine tube plugs and also to plug tubes in case eddy current (EC) examination revealed unacceptable condition of the tube(s). In anticipation to plug the tubes twelve (12) tube plugs were machined. The eddy current (EC) examination revealed no unacceptable condition of the tube(s). The tube plugs machined in accordance with ASME Section XI Plan No 2-1656 are being stored in the warehouse inventory for future use.

In view of the above, this NIS-2 form is being issued to close this plan since there is no other mechanism to close and vault the plan. Inspector's signature is not required on this NIS-2 form since no repair and replacement work was performed on permanent plant equipment under this plan.

# **EMERGY**NORTHWEST

Type Code Symbol St. Certificate Of Authoriz Expiration Date: Not Ap Prepared By Kuldip Sir Date  Sessel Inspectors and lohnston, Rhode Island Foeriod Dwner has performed in accordance with the	itements made ir ME Code, Section amp: Not Applicable zation No.: Not App	Signed By Signed By	nd this replacement conforms  Charles Supp  gh - Pregram Lead Engineer (PLE)
Type Code Symbol St. Certificate Of Authoriz Expiration Date: Not Ap Prepared By Kuldip Sir Date  Sessel Inspectors and lohnston, Rhode Island Foeriod Dwner has performed in accordance with the	tements made in ME Code, Section amp: Not Applicable	this Owner's Report are correct a XI.  icable  Signed By Kuldip Sin	land Such
Type Code Symbol St. Certificate Of Authoriz Expiration Date: Not Ap Prepared By Kuldip Sir Date  Sessel Inspectors and lohnston, Rhode Island Foeriod Dwner has performed in accordance with the	tements made in ME Code, Section amp: Not Applicable	this Owner's Report are correct a XI.  icable  Signed By Kuldip Sin	land Such
Type Code Symbol St. Certificate Of Authoriz Expiration Date: Not Ap Prepared By Kuldip Sir Date  Sessel Inspectors and lohnston, Rhode Island Foeriod Dwner has performed in accordance with the	tements made in ME Code, Section amp: Not Applicable	this Owner's Report are correct a XI.  icable  Signed By Kuldip Sin	land Such
Type Code Symbol St. Certificate Of Authoriz Expiration Date: Not Ap Prepared By Kuldip Sir Date  , the undersigned, hole Vessel Inspectors and lohnston, Rhode Island Inspector Dwner has performed in accordance with the	amp: Not Applicable zation No.: Not Applicable	icable  Signed By  Kuldip Sin	land Such
Type Code Symbol St. Certificate Of Authoriz Expiration Date: Not Ap Prepared By Kuldip Sir Date  Street Inspectors and Iohnston, Rhode Island Foeriod Cowner has performed in accordance with the	amp: Not Applicable zation No.: Not App plicable	Signed By Kuldip Sin	Suph gh - Pregram Lead Engineer (PLE) 8/16/01
Certificate Of Authorize Expiration Date: Not Apprepared By Kuldip Sir Date Solution Inspectors and Ohnston, Rhode Island Period Owner has performed in accordance with the	zation No.: Not App plicable	Signed By Kuldip Sin	gh - Program Lead Engineer (PLE)
Expiration Date: Not Ap Prepared By Kuldip Sir Date Seriol Inspectors and ohnston, Rhode Island Freeriod Owner has performed in accordance with the	plicable	Signed By Kuldip Sin	Ich Such Igh - Pregram Lead Engineer (PLE)  8/16/01
the undersigned, hole see Inspectors and phonston, Rhode Island Feriod Dwner has performed in accordance with the	Jay Sangh - Program Lead E	•	gh - Program Lead Engineer (PLE)
the undersigned, hole (essel Inspectors and ohnston, Rhode Island Feriod	ngh - Program Lead E	•	gh - Pregram Lead Engineer (PLE)
the undersigned, hole see Inspectors and phonston, Rhode Island Feriod Dwner has performed in accordance with the	ngh - Program Lead E	•	gh - Pregram Lead Engineer (PLE)
the undersigned, hole  Yessel Inspectors and ohnston, Rhode Island Feriod  Owner has performed in accordance with the	1601	Date	8/16/01
ohnston, Rhode Island heriod  Dwner has performed in accordance with the			
ohnston, Rhode Island Interior  Diviner has performed in accordance with the			
lohnston, Rhode Island hoeriod  Dwner has performed in accordance with the			
ohnston, Rhode Island hoeriod  Dwner has performed on accordance with the	CERTIFIC	ATE OF INSERVICE INSPECTION	v
Dwner has performed on accordance with the	the State of Was	nission issued by the National Bo ington and employed by Factory Mu e components described in this O	itual incurance Company of
i accordance with the	10	and state to the best of my	v knowledge and halief the
i accordance with the	examinations an	l taken corrective measures descr	ribed in this Owner's Report
ly signing this partiti-	requirements of	the ASME Code. Section XI	
ny signing unis cerunica nolied concerning the	ate neitner the in	spector nor his employer makes a	ny warranty, expressed or
urthermore, neither th	s examinations a se Inspector nor	nd corrective measures described is employer shall be liable in any	in this Owner's Report.
njury or property dama	age or a loss of a	ny kind arising from or connected	manner for any personal with this inspection.
See Not Inspector's Si	e 1	CommissionsNational B	
maperior 8 31	gnatur <del>e</del>	National B	loard, State, and Endorsements
ate			

Date: 04/16/01

Sheet: 1 Of 1

Unit: Not Applicable



## 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 Room Chilled Water (CCH) 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
SW(21)-2 CCH-RD-1A CCH-RD-1A	WPPSS * BS&B BS&B	SW(21)-2-P1 Lot No 87090001-1 Lot No 87090001-1	N/A N/A N/A	N/A N/A N/A	1983 1987 1987	Replaced Replacement	Yes, Code Class 3 No, Code Class 3 No, Code Class 3

- 7. Description Of Work Performed: Replaced rupture disc for CCH-RD-1A. The replacement work was performed as follows:
  - 1) Removed existing rupture disc.
  - 2) Performed VT-3 visual examination on the existing studs for the bolted joint. VT-3 visual examination results acceptable.
  - 3) Performed VT-3 visual examination on the existing nuts for the bolted joint. VT-3 visual examination results acceptable.
  - 4) Installed new rupture disc.
  - 5) Reinstalled VT-3 visually examined existing studs for the bolted joint.
  - 6) Reinstalled VT-3 visually examined existing nuts for the bolted joint.
  - 7) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the bolted joint. No evidence of leakage during the pressure test.

### EMERGY NORTHWEST

	d: Hydrostatic Pneuma Test Pressure: 2.6 Psig Component Design Pressur		Operating Pressure X Other I I est Temperature: 54.5° F emperature: 150° F
<b>Remarks:</b> S <del>oo</del> at	tached NR-1 Code Data Report for the	new replacement ruptu	re disc.
	CERTIFIC	CATE OF COMPLI	ANCE
to the rules of	tne ASME Code, Section XI.	Owner's Report are	e correct and this replacement conforms
	mbol Stamp: Not Applicable Authorization No.: Not Applicable		
Expiration Dat			
D	Willy Ook		KIPA OOL
Prepared By _	Kuldip Singh - Program Lead Enginee	Signed By	Kuldip Singh - Program Lead Engineer (PLE)
Date	4/16/01	Date	1 1. In .
		Date	4)18/01
	CERTIFICATE	OF INSERVICE IN	ISPECTION
vessel inspect Johnston, Rhode period 3 2 2 Owner has per in accordance By signing this implied, conce Furthermore, n	e Island have inspected the co formed examinations and tak with the requirements of the a certificate neither the inspect rning the examinations and capether the inspector nor his e	on and employed by imponents describe imponents describe imponents describe important and state to the important and state to the important important in an armone imployer shall be lied in the interest and in a sure imployer shall be lied in a sure in a sure imployer shall be lied in a sure in	lational Board of Boiler and Pressure of Factory Mutual insurance Company of ed in this Owner's Report during the e best of my knowledge and belief, the sures described in this Owner's Report on XI. er makes any warranty, expressed or a described in this Owner's Report. able in any manner for any personal connected with this inspection.
9.M.	Losto		7486W/7486 NI IS.
ins	pector's Signature		National Board, State, and Endorsements
Date 4-18	-01		



SAFETY SYSTEMS

CUSTOMER: WASHINGTON PUBLIC POWER

P.O.#:

CCH-RD-1A

PLAN NO. 2-1663

Dulaip 8m/65

#### FORM NR-1 DATA REPORT OF RUPTURE DISKS As Required by the Provisions of the

ASME Code Rules, Section III, Div. 1

	Manufactured by: RS&B Safety Systems, Inc.,  (Name and address of Manufacturer)
•	IDENTIFICATION OF RUPTURE DISK
· · · · · · · · · · · · · · · · · · ·	2. Type of Style:BVLot No.: _87090001-1
	-3.—Disk-Dimensional Characteristics:
;; ⊃	Size: 3" Capacity: 10,510 SCFM Air
<b>-</b>	4. Material Specification: ASTM A-167, 316 SS ANNEAL.
	5. Drawing No.: N/A
3	6. Burst Pressure: 103.95 PSIG Max. 94.05 PSIG Min.
-	7. Coincident Disk Temperature: 100 DEG F
	8. Element used in test:AIR
$\smile$	9. Cyclic Test Results: N/A (if required)
- •	CERTIFICATION
	10. Place of Test: Tulsa. Oklahoma Date of Test: 01/15/87
•	WE CERTIFY THE ABOVE DATA TO BE CORRECT AND THAT THESE DISKS HAVE BEEN MANUFACTURED AND TESTED TO THE REQUIREMENTS OF THE ASME CODE.
	DATE: JANUARY 21, 1987 ISSUED BY: BS&E Safety Systems, Inc.
	APPROVED BY: Quality Control Manager
	No. of Pieces Shipped: 12
	Actual Burst Test Results: 104, 102 PSIG @ 72 DEG F
	STAMP DISK TAB: SUPPLY SYSTEM PO #86553; SUPPLY SYSTEM PO ITEM #1

Date: 02/11/00

Sheet: 1 of 1

Unit: WNP-2



### 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: WNP-2 Plant Site, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Energy Northwest Nuclear Power Plant WNP-2

Address: WNP-2 Plant Site, 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, 1974 Edition with Winter 1976 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
SW-V-170B	Allis Chalmers	73912-4	N/A	N/A	1978	Replaced	Yes, Code Class 3

- 7. Description Of Work Performed: Replaced the existing stud and a nut for the end cover plate for valve SW-V-170B. The replacement work was performed as follows:
  - 1) Removed the existing stud and a nut for the valve end cover plate.
  - 2) installed new cap screw (bolt) for the end cover plate.

#### NOTES -

1) Only one (1) of the four (4) cap screws (bolts) for the end cover plate for valve SW-V-170B was stud and a nut instead of a cap screw (bolt).

# EMERGY NORTHWEST

sts Conducted	d: Hydrostatic Pneuma Test Pressure: Psig Component Design Pressur	70	Operating Pressure Other X No lest Temperature: ° F lemperature: ° F
emarks: None			
	CERTIFI	CATE OF COMPLI	ANCE
We certify that	the statements made in this	Owner's Report an	e correct and this replacement conforms
to the rules of t	the ASME Code, Section XI.	oport a	- Some of and this replacement Comornis
	nbol Stamp: Not Applicable		
	Authorization No.: Not Applicable	1	•
Expiration Date	*: Not applicable		1 2 0 13
Prepared By	Villars Sangl	Signed By	Livery Eurob
	Kuldip Singh - Program Lead Enginee		Kuldip Singh - Program Lead Engineer (PLE)
Date	2/11/00	Date	2/11/00
	CERTIFICATE	OF INSERVICE IN	ISPECTION
, the undersign	ned, holding a valid commiss	ion issued by the N	National Board of Boiler and Pressure
<i>lowood Massa</i>	ors and the State of Washington Chusetts have inspected the A	on <b>ana employea b</b> y Componente descri	y Factory Mutual Insurance Company of bed in this Owner's Report during the
period_2-5	-99 to 2/14/00	and state to the	e best of my knowledge and belief, the
Owner has perf	formed examinations and tak	en corrective mea:	sures described in this Owner's Report
n accordance i	with the requirements of the	ASME Code, Section	on XI.
3y signing this	certificate neither the Inspec	ctor nor his employ	er makes any warranty, expressed or
mplied, concer	rning the examinations and c	corrective measures	s described in this Owner's Report.
-urtnermore, n	either the inspector nor his e thi damage or a local of any l	employer shall be li	iable in any manner for any personal
inary or prope	i ty damaye or a loss or any l	una arising from Of	r connected with this Inspection.
A IM	The state of the s	-	
# ###//.	11/1	Commissions	7486W/ 7486 NI IS
1 pr 1/11			
lns	pector's Signature		National Board, State, and Endorsements
ins	pector's Signature		

Date: 05/01/01

Sheet: 1 Of 1

Unit: Not Applicable



### 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 3, 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)-ST-(IR-62)-2	JCI	PI(1)-ST-(IR-62)-2	N/A	N/A	1983		Yes, Code Class 3
PI(1)-ST-(IR-62)-4	JCI	PI(1)-ST-(IR-62)-4	N/A	N/A	1983		Yes, Code Class 3
PI(1)-ST-(IR-62)-5	JCI	PI(1)-ST-(IR-62)-5	N/A	N/A	1983		Yes, Code Class 3
						,	

- 7. Description Of Work Performed: Replaced tubing material for valves RCIC-V-4, RCIC-V-25 and RCIC-V-54. The replacement work was performed as follows:
  - 1) Installed replacement tubing and tube fittings such as unions and male connectors.
  - 2) Made tubing to tube fitting mechanical joints.
  - 3) Installed replacement support material such as block clamps and cap screws.
  - 4) Installed replacement support material such as plate, channel and tube steel.
  - 5) Made required welds.
  - 6) Performed visual examination on the final welds. Visual examination results acceptable.



ests Conducted: Hydrostatic Pneumai Test Pressure: Psig Component Design Pressur	Test Temperature: ° F
Remarks: None	
CERTIFIC	CATE 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.	The state of the s
Type Code Symbol Stamp: Not Applicable	
Certificate Of Authorization No.: Not Applicable	
Expiration Date: Not Applicable	
Prepared By Culaus Ques	2 12 X 12 0 A Q 0 A
Kuldip Singh - Program Lead Enginee	r (PLE)  Signed By  Kuldip Singh - Program Lead Engineer (PLE)
i . i .	i l
Date S   01   01	Date S   O   D
•	•
CERTIFICATE	OF INSERVICE INSPECTION
l, the undersigned, holding a valid commiss	ion issued by the National Board of Boiler and Pressure
ichneton Bhode Island have inenested the se	on and employed by Factory Mutual Insurance Company of
period to	mponents described in this Owner's Report during the and state to the best of my knowledge and belief, the
Owner has performed examinations and tak	en 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 inspec	tor nor his employer makes any warranty, expressed or
implied, concerning the examinations and c	orrective measures described in this Owner's Report
Furthermore, neither the Inspector nor his e	employer shall be liable in any manner for any personal
injury or property damage or a loss of any k	rind arising from or connected with this inspection.
Not Deviced Devices and I NDC And Co. II	Commelant
Not Required - Replacement 1" NPS And Smaller	Commissions National Board, State, and Endorsements
Inspector's Signature	NETIONAL KOOLO STOLO ONG ENGARGAMANIA
Inspector's Signature	realities board, State, and Endorsements
Inspector's Signature  Date	Matterial Board, State, and Endorsements

Date: 04/10/00

Sheet: 1 of 1

Unit: WNP-2



## 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: WNP-2 Plant Site, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Energy Northwest Nuclear Power Plant WNP-2

Address: WNP-2 Plant Site, 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: Process Instrumentation (PI) Tubing

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
D-220-3500-9.0- RHR-PI-2B	JCI	D-220-3500-9.0- RHR-PI-2B	N/A	N/A	1983	*******************	Yes, Code Class 3
Valve	Dragon	GP1313	N/A	N/A	1981	Replaced	Yes, Code Class 2
Valve	Dragon	PB1194	N/A	N/A	1993	Replacement	Yes, Code Class 2
					1		

- 7. Description Of Work Performed: Replaced existing valve Serial No GP1313 associated with instrument RHR-PI-2B. The replacement work was performed as follows:
  - 1) Removed existing valve Serial No GP1313.
  - 2) Installed new tubing material such as connector, front ferrule, back ferrule and tubing.
  - 3) Installed new replacement valve Serial No PB1194.
  - 4) made required compression joints.
  - 5) Made required socket welds.
  - 6) Performed visual examination on the final socket welds. Visual examination results acceptable.

#### **NOTES** -

- 1) The existing ASME Code Stamped Process Instrumentation (PI) Tubing in which the new replacement valve Serial No PB1194 was installed is D-220-3500-9.0-RHR-PI-2B. This process instrumentation tubing is certified to comply with ASME Section III, Code Class 3, 1974 Edition with Winter 1975 Addenda requirements.
- 2) The new replacement valve Serial No PB1194 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.
- 3) ASME Section III, Code Class 2 valve for ASME Section III, Code Class 3 application.



Tests Conducted: Hydrostatic Pneuma Test Pressure: Psig Component Design Pressu	Test Temperature: ° F
Remarks: See attached NPV-1 Code Data Report for ti	the new replacement valve Serial No PB1194.
CERTIFIC	CATE OF COMPLIANCE
We certify that the statements made in this to the rules of the ASME Code, Section XI.  Type Code Symbol Stamp: Not Applicable  Certificate Of Authorization No.: Not Applicable	Owner's Report are correct and this replacement conforms
Expiration Date: Not Applicable	
Prepared By Kuldip Singh - Program Lead Engineer	Signed By Kuldip Singh - Program Lead Engineer (PLE)
Date 4 10 00	Date 4 10 00
, the undersigned, holding a valid commission	OF INSERVICE INSPECTION on issued by the National Board of Boiler and Pressure
Vessel Inspectors and the State of	and employed by
described in this Owner's Report during the	period have inspected the components
state to the best of my knowledge and belief, corrective measures described in this Owner ASME Code, Section XI. By signing this certificate neither the inspect mplied, concerning the examinations and cofurthermore, neither the inspector nor his en	the Owner has performed examinations and taken r's Report in accordance with the requirements of the for nor his employer makes any warranty, expressed or prective measures described in this Owner's Report. In any manner for any personal and arising from or connected with this inspection.
Not Required - Replacement 1" NPS And Smaller	Commissions
Inspector's Signature	National Board, State, and Endorsements
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form NPV-1 N CERTIFICATE HOLDERS' DATA REPORT FOR I	MINTER DAY IN	OD WAINCES
COME IN A IS CESSIA WASTE MOEDENS DAIN REPORT FOR S	MUCLEMN FUMPS	OU AVEATS.
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As Recuired by the Provisions of the ASHF Code 9	Cartina III Piu 1	<b>O</b>

Manufactured forWa	(Name and Address of Pu (Name and Address of Pu (Name and Address of Pu WNP 2 Site Rich	ower Sup. S	ys. P.O. Box			
	(Name and Address) Valve	Nominal	nlet Size1/		Ilet Size	1/2
(a) Model No., (t	) N Certificate Holder's	(c) Canadian	(ii	nch)		(inch)
Series No.	Serial	Registration	(d) Drawing	•	(f) Nat'l.	(g) Year
or Type	No.	No.	No.	(e) Class	Bd. No.	Built
(1) 7N058SWD	PB1194	N/A	10580	2	N/A	1993
(2)	thru		Rev. C			
(3)	PB1204					
(4) ·			7, 7,			
(5)	SE	RIAZ NO	o. PB 119	4	· · · · · · · · · · · · · · · · · · ·	
6)		<del></del>				
7)				1-0-		
8)	·	<del> </del>		Kudup	Kuph	)
9)					411010	)
10)				•		
Instrumen	t Valve		•		( ll Pcs	. )
	(Brief description	of service for which	h equipment was de	signed)		<del>-                                    </del>
old Working Pressure		( i emberature)	_ 'F or Valve Pro	essure Class _	1500	(1)
Pressure Retaining Piece		T				
Mark No.	Material Sp	ec. No.	Manufactu	irer	Remari	
Mark No.	Material Sp	ec. No.	Manufactu	itet	Hemari	
Mark No.	Material Sp	ec. No.	Manufactu	irer	nemari	
Mark No.	Material Sp	ec. No.	Manufactu	irer	nemari	-
Mark No.	Material Sp	ec. No.	Manufactu	iter	nemari	
Mark No.	Material Sp	ec. No.	Manufactu	irer	nemari	

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(b) Forgings			
(a) , a. g.i.i.j.	1		i
HT.AJ9461	ASME SA182 GR. F316	Aiax Forge Co.	Body
	ASME SA182 GR. F316	Ajax Forge Co.	Body
HT.AJ9461 HT.A19167	ASME SA182 GR. F316 ASME SA182 GR. F316	Ajax Forge Co. Ajax Forge Co.	Body Bonnet Yoke

<sup>(1)</sup> For manually operated valves only.

<sup>\*</sup> 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.

<del></del>			nemares .
(c) Bolting N/A	· .		
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· · · · · · · · · · · · · · · · · · ·			
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			-
(d) Other Parts			
HT.853543	ASME SA564 GR. 630	Carpenter Tech.	Disc
3			
9. Hydrostatic test 5400	psi. Disk Differential test pressure 360	00 psi .	
	CEDTIFICATE OF C		
1	CERTIFICATE OF CO		
Construction of the ASAE	nts made in this report are correct	and that this pump, or valve, (	conforms to the rules of
Addenda S 75	Code for Nuclear Power Plant Comp	onents. Section III, Div. L. Edi	tion 1974
Signed DRAGON VALV		Date August	23. 1993
Signed DRAGON VALV		1 - K Ding de	<u> </u>
Our ASME Certificate of Auth	orization No. N 1033	se the N	expires 10/1/93
		(M)	(Dete)
	CERTIFICATION OF		
Design information on file at	Washnington Public Power	Sup. Sys.	
Stress analysis report (Class	1 only) on file atN/A		
	David J. Murr		
Design specifications certified WA. PE State		лу	
Stress analysis certified by (1	Reg. No. 12542 N/A		
PE State			
(1) Signature not required. Lis	t name only.		
	CERTIFICATE OF SHOP	Medecalon	
I the undersioned holds-			
and the State or Province of	valid commission issued by the Nati CALIFORNIA	ional Board of Boiler and Pres	sure Vessel Inspectors
of HARTFORD CT.	have increased at a	nd employed by H.S.B. INS	P. & INS. CO.
AUGUST 24	19 93 and state that to the best of	pump, or valve, described in	this Data Report on
structed this pump, or valve, in	accordance with the ASME Code, Se	y knowledge and belief, the N Ce	rtificate Holder has con-
By signing this certificate, nelt	her the inspector nor his employer m	SPEC SOU WARRANT AVERAGE A	
4-1-1-1111	's Cara Nopon, runne/more, neither	the inspector one his ampleus.	
יין ונויוי ומווספוטק אויים יסי יסי	or property damage or a loss of any	kind arising from or connected	snall be fiable in any
Date 8-24	19 /3	2 a. aaimaelad	mis inspection.
Lu	Commissions	CA 1716	
ilnspector)		(Nat'l Bd., State, Prov. a)	mt Na )

Date: 07/06/00

Sheet: 1 of 2

Unit: Not Applicable



### 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 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
Spare Nozzles For MSRV's	Crosby	See Item No 7 Below For Serial No's Of Spare Nozzles	N/A	N/A	N/A	Repair	No, Code Class 1 Spare Nozzles

- 7. Description Of Work Performed: Modified spare nozzles for Main Steam Relief Valves (MSRV's). The work was performed as follows:
  - 1) Modified (machined) the spare nozzies in accordance with Crosby's Field Services Procedure No FS-5335, CVI No 932-00,2.
  - 2) Performed Fluorescent Liquid Penetrant (PT) examination on the final machined surfaces of the spare nozzles. The Fluorescent Liquid Penetrant (PT) examination results are as described below and also see Note 1 for additional information.
  - 3) Lined out the old Part No N93184 on the modified spare nozzles and vibroengrave the new Part No N97498.
  - 4) The following is a listing of spare nozzles which were modified (machined):

Nozzle No	Nozzle New Serial No	PT Results	PT Results	Final Disposition
1	N97498-33-0065	Reject		Scrapped
	(Old Serial No N93184-33-0065)	•		<b></b>
2	N97498-33-0068	Accept		Accept
	(Old Serial No N93184-33-0068)			
3	N97498-33-0070	Accept		Accept
	(Old Serial No N93184-33-0070)		<del></del>	•
4	N97498-33-0074	Accept		Accept
	(Old Serial No N93184-33-0074)	•	<del></del>	•
5	N97498-42-0104	Reject	Accept	Accept
	(Old Serial No N93184-42-0104)		• .	·
6	N97498-44-0107	Accept		Accept
	(Old Serial No N93184-44-0107)	·		•
7	N97498-44-0114	Reject	Accept	Accept
	(Old Serial No N93184-44-0114)	<del>-</del>	•	•

Continued on Sheet 2 of 2

# **EMERGY**NORTHWEST

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 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
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
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
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
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
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
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
rules of the ASME Code, Section XI.  Type Code Symbol Stamp: Not Applicable
rules of the ASME Code, Section XI.  Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable
I summer that dish the second the second
Kuldip Singh - Program Lead Engineer (PLE)  Signed By Vindub Supb  Kuldip Singh - Program Lead Engineer (PLE)  Kuldip Singh - Program Lead Engineer (PLE)
Date 7600 Date 7600
CERTIFICATE OF INSERVICE INSPECTION
OLATII ICATE 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 1-17-00 to 2-19-00 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.
11 m. Tal
Commissions (486 NISIS
Inspector's Signature National Board, State, and Endorsements
n. 1/19/11/
Date 1/1/00

Date: 07/06/00

Sheet: 2 of 2

**Unit:** Not Applicable



### 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 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
Spare Nozzles For MSRV's	Crosby	See Item No 7 Below For Serial No's Of Spare Nozzles	N/A	N/A	N/A	Repair	No, Code Class 1 Spare Nozzles

#### 7. Description Of Work Performed: Continued from Sheet 1 of 2

<u>Nozzie No</u> 8	Nozzle New Serial No N97498-47-0122	PT Results Reject	PT Results Reject	Final Disposition Scrapped
9	(Old Serial No N93184-47-0122) N97498-50-0147 (Old Serial No N93184-50-0147)	Reject	Reject	Scrapped
10	N97498-51-0158	Reject	Reject	Scrapped

#### NOTES -

1) Performed Fluorescent Liquid Penetrant (PT) examination on the final machined surfaces. Fluorescent Liquid Penetrant (PT) examination results are as follows:

Fluorescent Liquid Penetrant (PT) examination acceptable for four (4) spare nozzles out of total of ten (10) spare nozzles. Six (6) spare nozzles were rejected due to unacceptable Fluorescent Liquid Penetrant (PT) examination results. Out the six (6) spare nozzles one (1) spare nozzle was scrapped because it was unable to remove unacceptable indications. Remaining five (5) spare nozzles were remachined. Performed Fluorescent Liquid Penetrant (PT) examination on the final remachined surfaces of the five (5) spare nozzles. Fluorescent Liquid Penetrant (PT) examination acceptable for two (2) spare nozzles and the remaining three (3) spare nozzles were rejected (scrapped) due to unacceptable Fluorescent Liquid Penetrant (PT) examination results.

2) The spare modified (machined) nozzles are kept as replacement nozzles for future use. When need arises in the future, these spare modified nozzles will be installed in the Main Steam Relief Valves (MSRV's) as replacement parts.

3) The old Part No N93184 was lined out on the modified spare nozzles and new Part No N97498 was vibroengraved. Thus the modified spare nozzles now have a new serial number - Example: Serial No N93184-33-0055 was changed to Serial No N97498-33-0055.

Date: 06/27/01

Sheet: 1 Of 1

Unit: Not Applicable



### 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 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-32B	Anchor Darling	1N-110	N/A	N/A	1975	••••	Yes, Code Class 1

- 7. Description Of Work Performed: Replaced existing stuffing box for valve RFW-V-32B. 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 for the stuffing box joint.
  - 12) Installed VT-1 visually examined replacement nuts for the stuffing box joint.
  - 13) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

# **EMERGY**NORTHWEST

8 7	Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure X Other None Test Pressure: 935 Psig Test Temperature: 530° 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
	N = N = N = N = N = N = N = N = N = N =
	Frepared By Kuldip Singh - Program Lead Engineer (PLE)  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 (//9/0( to //24/0/ 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.
	11/11 -
	Inspector's Signature Commissions 746 W 7486 NAS AS National Board, State, and Endorsements
	Inspector's Signature National Board, State, and Endorsements
	Date 1/24/0/

Date: 06/16/01

Sheet: 1 Of 1

Unit: Not Applicable

## **EMERGY**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: Standby Liquid Control (SLC) 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: 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
SLC(2)-3S SLC-V-16 SLC-V-16	WPPSS * Borg Warner Borg Warner	SLC(2)-3S-P1 14082 28839	N/A N/A N/A	N/A N/A N/A	1983 1976 1978	Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing valve SLC-V-16. The replacement work was performed as follows:
  - 1) Removed existing valve SLC-V-16, Serial No 14082.
  - 2) Installed replacement valve SLC-V-16, Serial No 28839.
  - 3) Made required socket welds.
  - 4) Performed visual examination on the final socket welds. Visual examination results acceptable.
  - 5) Performed liquid penetrant (PT) examination on the final socket 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 replacement valve SLC-V-16, Serial No 28839 was installed is Standby Liquid Control (SLC) piping system SLC(2)-3S-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 SLC-V-16, Serial No 28839 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.
- 5) The liquid penetrant (PT) examination on the final socket 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.
- 6) 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.

# **EMERGY**NORTHWEST

Test Pressure: 1240 Psig Test Temperature: 82.6° F Component Design Pressure: 1400 Psig Temperature: 150° F  Remarks: See attached NPV-1 Code Data Report for the replacement valve SLC-V-16, Serial No 28839.
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 - Program Lead Engineer (PLE)  Date  Date  Date
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 //// / / / / / / / / / / / / / / / /
Commissions   THSU   THSU   N I I I I I I I I I I I I I I I I I I

### FORM NPV-1 MANUFACTURERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES\*

As Kegui	red by	the	Provisions	of the	ASME	Code	Rules
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VALVES	Jo 28	رامي
	6/15	01

	Nuclear Valve D		•	
1.	Manufactured by of Borg Warner, 7	500 Tyrone Ave.,	Van Nuys, Ca. Ord	er No. 47713
••	(Nen	se & Address of Manufacturer	)	
	Bovee & Crail/G		ton 99352	015 00010
2.	Manufactured for P.O. Box 1040,	(Name and Address)	Ord	er No. 215-3261Q
		••		000000
	Owner WPPSS Hanford #2 Job	site SLC-V-1	6 SIN 28839	
			-,	
4.	Location of Plant Richland, Wasi	hington 99352		
	•			
5.	Pump or Valve Identification Nuclear	Valve Div. P/N 76	650-1, 1 1/2 Inch	Y Globe Valve, SS, S
	0 4.3 1		00041	
		jumbers 28839 the		
	(Bitel desci	Ubitou of selects for mires en	(mbmsut and casiford)	
				· · · · · · · · · · · · · · · · · · ·
	(a) Drawing No. 76650-1	Danasad by Nucle	ear Valve Division	of Borg Warner
	(a) Drawing No.	Prepared by		
	(h) National Board No. N/A			•
				•
ó.	Design Conditions : 3600 (Pressure)	psi100	°F	
				•
7.	The material, design, construction, and wo	rkmanship complies with A	ISME Code Section III. Clas	2
	Edition 1974, Addenda De	Common 175	5 N/A	•
	Edition, Addenda Da	reammer 12	Case No.	
			<u> </u>	Banaska
	Mark No.	Material Spec. No.	Manufacturer	Romarks
	Mark No.	Material Spec, No.	Manufacturer	Romarks
	Mark No.		<u> </u>	Romarks
	Mark No.	Material Spec, No.	Manufacturer	Remarks
	Mark No.	Material Spec, No.	Manufacturer  Rex Precision	
	Mark No.	Material Spec, No.	Manufacturer	
	Mark No.	Material Spec, No.	Rex Precision	
	Mark No.	Material Spec, No.	Manufacturer  Rex Precision	
	Mark No.	Material Spec, No.	Rex Precision	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
	Mark No.	Material Spec, No.	Manufacturer  Rex Precision  O 2 77  MAG	
	Mark No.	Material Spec, No.	Rex Precision	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
	Mark No.  (a) Castings  Disc - Code 2El	Material Spec, No.	Manufacturer  Rex Precision  O 2 77  MAG	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
	Mark No.  (a) Castings  Disc - Code 2E1	Material Spec, No.	Rex Precision  O F MAN  MAN  BECHTEL (BY:	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
	(a) Castings  Disc - Code 2El  (b) Forgings  Body - Code 2F76, 1K15.	Stellite #6	Rex Precision  O F MAG  MAG  BECHTEL ( BY:	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
	Mark No.  (a) Castings  Disc - Code 2E1	Material Spec, No.	Rex Precision  O F MAN  MAN  BECHTEL (BY:	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
	(a) Castings  Disc - Code 2E1  (b) Forgings  Body - Code 2F76, 1K15, 1K14	Stellite #6	Rex Precision  O F MAG  MAG  BECHTEL ( BY:	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
	(a) Castings  Disc - Code 2El  (b) Forgings  Body - Code 2F76, 1K15.	Stellite #6	Rex Precision    D   D   D   D   D   D   D   D   D	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
	(a) Castings  Disc - Code 2E1  (b) Forgings  Body - Code 2F76, 1K15, 1K14	Stellite #6	Rex Precision    D   D   D   D   D   D   D   D   D	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
	(a) Castings  Disc - Code 2E1  (b) Forgings  Body - Code 2F76, 1K15, 1K14	Stellite #6	Rex Precision    D   D   D   D   D   D   D   D   D	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
	(a) Castings  Disc - Code 2E1  (b) Forgings  Body - Code 2F76, 1K15, 1K14	Stellite #6	Rex Precision    D   D   D   D   D   D   D   D   D	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Suppressortal sheets in form of lists, sketches or drawings may be used provided (1) size is \$%" x 11", (2) information in items, 1, 2, 5s and 3h or .nee data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

1

2

2

This form (E37) is obtainable from the ASME, 345 E. 47th St., New York, N.Y. 10017

Printed In U.S.A. (6/72)

(Inspector)

Date: 06/20/01

Sheet: 1 Of 1

Unit: Not Applicable



### 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(2)-1 HPCS-V-39 HPCS-V-39	WPPSS * Borg Warner Borg Warner	HPCS(2)-1-P1 16797 56637	N/A N/A N/A	N/A N/A N/A	1983 1977 1980	Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing valve HPCS-V-39. The replacement work was performed as follows:
  - 1) Removed existing valve HPCS-V-39, Serial No 16797.
  - 2) Installed replacement pipe piece.
  - 3) Installed replacement valve HPCS-V-39, Serial No 56637.
  - 4) Made required socket welds.
  - 5) Performed visual examination on the final socket welds. Visual examination results acceptable.
  - 6) Performed liquid penetrant (PT) examination on the final socket 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 replacement valve HPCS-V-39, Serial No 56637 was installed is High Pressure Core Spray (HPCS) piping system HPCS(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 HPCS-V-39, Serial No 56637 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1974 Addenda requirements.



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 Expiration Date: Not Applicable  Prepared By	ests Conducted: Hydrostatic Pneumat Test Pressure: Psig Component Design Pressure	Test Temperature: ° F
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	Remarks: See attached NPV-1 Code Data Report for the	ne replacement valve HPCS-V-39, Serial No 56637.
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		
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		
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		
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	CEDTIE	CATE OF COMPLIANCE
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 my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in the Inspector nor his employer makes any warranty, expressed or lamplied, 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	CERTIFIC	SATE OF COMPLIANCE
Type Code Symbol Stamp: Not Applicable Certificate Of Authorization No.: Not Applicable Expiration Date: Not Applicable Prepared By		Owner's Report are correct and this replacement conforms
Certificate Of Authorization No.: Not Applicable  Expiration Date: Not Applicable  Prepared By Kuldip Singh - Program Lead Engineer (PLE)  Certificate Of Inservice Inspection  Certificate Of Inservice I		
Prepared By Kuldip Singh - Program Lead Engineer (PLE)  Date		
Rudip Singh - Program Lead Engineer (PLE)   Kuldip Singh - Program Lead Engineer (PLE)		
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		1.01 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	Prepared By Wuldup Sup	Signed By Julaup Such
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	Kuldip Singh - Program Lead Enginee	
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure  Vessel Inspectors and the State of	Date 6 2 01	Date 6 21 0)
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure  Vessel Inspectors and the State of	, ,	·
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure  Vessel Inspectors and the State of		
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure  Vessel Inspectors and the State of		
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure  Vessel Inspectors and the State of		
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure  Vessel Inspectors and the State of	CERTIFICATE	OF INSERVICE INSPECTION
Ave 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	CENTIFICATE	OF INSERVICE INSPECTION
Vessel Inspectors and the State of	l, the undersigned, holding a valid commiss.	ion issued by the National Board of Boiler and Pressure
described in this Owner's Report during the period	Vessel Inspectors and the State of	and employed by
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		
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		
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	state to the best of my knowledge and belief	f, the Owner has performed examinations and taken
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		er's Report in accordance with the requirements of the
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		ctor nor his employer makes any warranty, expressed or
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	by signing this certificate fieldier the inspect implied, concerning the examinations and c	corrective measures described in this Owner's Report.
Not Required - Replacement 1* NPS And Smaller Inspector's Signature  National Board, State, and Endorsements	Furthermore, neither the Inspector nor his e	employer shall be liable in any manner for any personal
Inspector's Signature National Board, State, and Endorsements		
Inspector's Signature National Board, State, and Endorsements	· · · · · · · · · · · · · · · · · · ·	-
Inspector's Signature National Board, State, and Endorsements		Commissions
_	Not Required - Replacement 1" NPS And Smaller	~ ~ · · · · · · · · · · · · · · · · · ·
		National Board, State, and Endorsements

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 PLAN No. 2-1673

ocation of Installation	hichland, Weeh!	THE TOTAL WE	PSS Hanford	#2 Job Si	te	
ump or Valve Glot	Name and Addressi	Naminal	Inlet Size 3/	<b>4</b>	utter Siee	3/4
(a) Model No (b) N	Certificate Holder's	Ich Canadian	(1	nch)		(inch)
Series No.	Serial		(d) Drawing		15 14	
or Type	No.	No.	No.	(e) Class	(f) Nat'i. 8d. No.	(g) Year Built
1500#	56628, 56632,	N/A	76590-3	1	N/A	1980
	56634, 56636					
	Thru 56639					- ·
4)						
5)	111120 1	N- 20	71 =/7	7-		
6)	TTPCS-U	<u>,-34,</u>	SN 566	537		
6)						· · · · · · · · · · · · · · · · · · ·
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10)			The second	6/20/01	<del></del>	
The valves are	designed to her	ndle = fl-	tid madia whi	ch includ		
	CECEG Water, etc	P. = ======	- 4+1-	Term 4 Ter	WR. The	PECEL
temperature pre	(Brief description	of service for w	hich squipment was a	Sedued)		
Mark No.	Material Sp	ec. No.	Manufac	turer	Same	<del></del>
	Material Sp	ec. No.	Manufac	turer	Rema	rks
a) Castings	Material Sp	ec. No.	Manufac	turer	Rema	rks
	Material Sp  Colmonoy #4	ec. No.	Manufac		Rema	rks
a) Castings		ec. No.		ision	Rema	
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a) Castings		ec. No.	Rex Prec	ision	ИГ Папи И цай	
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Disc-Code 4D32		ec. No.	Rex Prec	ision		
Disc-Code 4D32	Colmonoy #4	ec. No.	Rex Prec	ision		
Disc-Code 4D32	Colmonoy #4	ec. No.	Rex Prec	ision		
Disc-Code 4D32	Colmonoy #4	ec. No.	Rex Prec	ision		
Disc-Code 4D32	Colmonoy #4	ec. No.	Rex Prec	ision		
Disc-Code 4D32	Colmonoy #4	ec. No.	Rex Prec	ision		
Disc-Code 4D32	Colmonoy #4	ec. No.	Rex Prec	ision		

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(10/77)

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

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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.

GBR 215-16202

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S

C

Date: 06/28/01

Sheet: 1 Of 1

Unit: Not Applicable



### 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 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
RCIC-V-63	Velan	594	N/A	N/A	1977	Replacement	Yes, Code Class 2

- 7. Description Of Work Performed: Replaced plug for the bonnet leak off connection for valve RCiC-V-63. The replacement work was performed as follows:
  - 1) Upgraded ASME Section III, Code Class 2 hex head plug to ASME Section III, Code Class 1 by performing liquid penetrant (PT) examination on external non-threaded surfaces of the square head plug. Liquid penetrant (PT) examination results acceptable.
  - 2) Removed existing plug from the valve bonnet leak off connection.
  - 3) Installed replacement hex head plug in the valve bonnet leak off connection.
  - 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.

### EMERGY NORTHWEST

sts Conducted: Hydrostatic Pneumati Test Pressure: Psig Component Design Pressure	Test Temperature: ° F
emarks: None	
CERTIFIC	CATE OF COMPLIANCE
No cortify that the statements made in this (	Owner's Report are correct and this replacement conforms
o the rules of the ASME Code, Section XI.	Swiler 3 rieport are dorreot and time tepadoment contesting
Type Code Symbol Stamp: Not Applicable	
Certificate Of Authorization No.: Not Applicable	
Expiration Date: Not Applicable	
10,000	1 0 00
repared By Word Sup	Signed By July Such
Prepared By Kuldip Singh - Program Lead Engineer	f (PLE) Kuldip Singh - Program Lead Engineer (PLE)
Date 6 2801	Date 6 28101
	, ,
CERTIFICATE	OF INSERVICE INSPECTION
, the undersigned, holding a valid commiss	ion issued by the National Board of Boiler and Pressure
essel Inspectors and the State of	and employed by
	have inspected the components
lescribed in this Owner's Report during the	period to and
state to the best of my knowledge and beller	f, the Owner has performed examinations and taken
	er's Report in accordance with the requirements of the
ASME Code, Section XI.	ctor nor his employer makes any warranty, expressed or
sy signing this certificate neither the inspec-	corrective measures described in this Owner's Report.
mpilea, concerning the examinations and c	employer shall be liable in any manner for any personal
-urinermore, neither the inspector nor his e	kind arising from or connected with this inspection.
njury or property damage or a loss of any k	and anonly nom or connected with this more done
	Commissions
Not Required - Replacement 1* NPS And Smaller	CommissionsNational Roard State and Endorsements
Not Required - Replacement 1* NPS And Smaller Inspector's Signature	National Board, State, and Endorsements

Date: 06/12/01 Sheet: 1 Of 1

Unit: Not Applicable



### 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: 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
SW(1)-2UG	WPPSS *	SW(1)-2UG-P1	N/A	N/A	1983		Yes, Code Class 3
SW-V-2A	Contromatics	84962-4-1	N/A	N/A	1979	Replaced	Yes, Code Class 3
SW-V-2A	Contromatics	84962-4-2	N/A	N/A	1979	Replacement	Yes, Code Class 3
	1						
	}						
			ļ				

- 7. Description Of Work Performed: Replaced existing valve SW-V-2A. The replacement work was performed as follows:
  - 1) Removed existing valve SW-V-2A, Serial No 84962-4-1.
  - 2) Performed VT-3 visual examination on the existing forty eight (48) bolts for the valve bolted joint. VT-3 visual examination results acceptable for thirty seven (37) bolts. VT-3 visual examination results were unacceptable for eleven (11) bolts.
  - 3) Installed replacement valve SW-V-2A, Serial No 84962-4-2.
  - 4) Installed eleven (11) replacement bolts and reinstalled thirty seven (37) existing bolts.
  - 5) 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 replacement valve SW-V-2A, Serial No 84962-4-2 was installed is Service Water (SW) piping system SW(1)-2UG-P1. This piping system is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The replacement valve SW-V-2A, Serial No 84962-4-2 is certified to comply with ASME Section III, Code Class 3, 1974 Edition with Winter 1975 Addenda requirements.

# **EMERGY**NORTHWEST

	: Hydrostatic Pneuma Test Pressure: 215 Psig Component Design Pressu	Test Temperature: 63° F  Temperature: 150° F
9. Remarks: See attak	ched NPV-1 Code Data Report for t	the replacement valve SW-V-2A, Serial No 84962-4-2.
	CERTIFI	ICATE OF COMPLIANCE
to the rules of the Type Code Symi	ne ASME Code, Section XI. bol Stamp: Not Applicable uthorization No.: Not Applicable	Owner's Report are correct and this replacement conforms
Prepared By	Ouldip Suis Ludip Singh - Program Lead Enginee	er (PLE)  Signed By  Kuldip Singh - Program Lead Engineer (PLE)
Date	<u>6/13/01</u>	Date
	CERTIFICATE	OF INSERVICE INSPECTION
Vessel Inspector Johnston, Rhode I period 5/5/ Owner has period in accordance w By signing this of implied, concern Furthermore, ne	rs and the State of Washington sland have inspected the configuration to the configuration and take ith the requirements of the configuration and configurat	sion issued by the National Board of Boiler and Pressure on and employed by Factory Mutual Insurance Company of Emponents described in this Owner's Report during the and state to the best of my knowledge and belief, the ken corrective measures described in this Owner's Report ASME Code, Section XI.  ctor nor his employer makes any warranty, expressed or corrective measures described in this Owner's Report. Employer shall be liable in any manner for any personal kind arising from or connected with this inspection.
1.111.3	Cotor's Signature	Commissions 74 Pleto 17456 IVI II
Date (1/22)	101	

1 Manufactured by COY	ntromatics Div	222	Debest Ct	T3 77 1		aup €
<ol> <li>Manufactured by <u>COT</u></li> <li>Manufactured for <u>WPF</u></li> </ol>	(Name and Address o	f N Certifica	te Holder)	E. Hart	lora, C	C.6/17/010
3. Location of Installation	Haniord Rese	rvation	Project 4,	Richland	, Washir	ngton
4. Pump or Valve <u>But</u>	tterfly Valve	Nomir	nal Inlet Size	20 ou	tlet Size	20
(a) Model No., (b	) N Certificate Holder's	(c) Canadia	au (ir	nch)		(inch)
Series No.	Serial	Registratio	on (d) Drawing		(f) Nat'l.	(g) Yea
or Type	No.	No.	No.	(e) Class	Bd. No.	Built
(1) Butterfly	84962-4-2	N/A	2498-20-06E	3	225	19
(2)						
(3)		<del></del>		·		
(5)	SW-V-2	ASI	N 84962-4	-2		
(6)	•					
(7)						
(8)						
(10)					_	· · · · · · · · · · · · · · · · · · ·
Shutdown	Cooling Water	m	## NTGT-T TT TOO	~		
Shutdown	Cooling Water		#4-NSW-V-302	В	···	
Shutdown			#4-NSW-V-302 which equipment was des	B signed)		
	(Brief description		#4-NSW-V-302 which equipment was des	B signed)	-	
	(Brief descriptions)	of service for	which equipment was des	signed)	300	
Design Conditions	(Brief description)  200 psi	of service for 350	which equipment was des	signed)	300	(1
Design Conditions	(Brief description)  200 psi (Pressure) 720 psi at 10	of service for 350	which equipment was des	signed)	300	(1
Design Conditions Cold Working Pressure Pressure Retaining Pieces	(Brief description)  200 psi (Pressure) 720 psi at 10	of service for 350	which equipment was des	signed)	300	(1
Design Conditions	(Brief description)  200 psi (Pressure) 720 psi at 10	of service for 350 (Temperature 10°F.	which equipment was des	essure Class _	300 Remark	
Design Conditions Cold Working Pressure Pressure Retaining Pieces	(Brief description)  200 psi (Pressure) 720 psi at 10	of service for 350 (Temperature 10°F.	which equipment was des	essure Class _		
Design Conditions  Cold Working Pressure — Pressure Retaining Pieces  Mark No.  (a) Castings  Disc	(Brief description)  200 psi (Pressure) 720 psi at 10	350 (Temperature	oF or Valve Pre	essure Class _		
Design Conditions Cold Working Pressure Pressure Retaining Pieces Mark No.  (a) Castings	(Brief description)  200 psi (Pressure) 720 psi at 10	350 (Temperature	which equipment was des	essure Class _		
Design Conditions  Cold Working Pressure — Pressure Retaining Pieces  Mark No.  (a) Castings  Disc	(Brief description)  200 psi (Pressure) 720 psi at 10	350 (Temperature	oF or Valve Pre	essure Class _		
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Design Conditions  Cold Working Pressure — Pressure Retaining Pieces  Mark No.  (a) Castings  Disc	(Brief description)  200 psi (Pressure) 720 psi at 10	350 (Temperature	** or Valve Pre  Manufactu  Lodi Iron	essure Class _		
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Design Conditions  Cold Working Pressure  Pressure Retaining Pieces  Mark No.  (a) Castings  Disc	(Brief description)  200 psi (Pressure) 720 psi at 10	350 (Temperature	** or Valve Pre  Manufactu  Lodi Iron	essure Class _		
Design Conditions  Cold Working Pressure — Pressure Retaining Pieces  Mark No.  (a) Castings  Disc  Ht #E535	(Brief description)  200 psi (Pressure) 720 psi at 10	350 (Temperature	** or Valve Pre  Manufactu  Lodi Iron	essure Class _		
Design Conditions  Cold Working Pressure — Pressure Retaining Pieces  Mark No.  (a) Castings  Disc  Ht #E535	(Brief description)  200 psi (Pressure) 720 psi at 10	350 (Temperature	** or Valve Pre  Manufactu  Lodi Iron	essure Class _		
Design Conditions  Cold Working Pressure — Pressure Retaining Pieces  Mark No.  (a) Castings  Disc  Ht #E535	(Brief description)  200 psi (Pressure) 720 psi at 10	350 (Temperature	** or Valve Pre  Manufactu  Lodi Iron	essure Class _		
Design Conditions  Cold Working Pressure — Pressure Retaining Pieces  Mark No.  (a) Castings  Disc  Ht #E535	(Brief description)  200 psi (Pressure) 720 psi at 10	350 (Temperature	** or Valve Pre  Manufactu  Lodi Iron	essure Class _		
Design Conditions  Cold Working Pressure — Pressure Retaining Pieces  Mark No.  (a) Castings  Disc  Ht #E535	(Brief description)  200 psi (Pressure) 720 psi at 10	350 (Temperature	** or Valve Pre  Manufactu  Lodi Iron	essure Class _		
Design Conditions  Cold Working Pressure — Pressure Retaining Pieces  Mark No.  (a) Castings  Disc  Ht #E535	(Brief description)  200 psi (Pressure) 720 psi at 10	350 (Temperature	** or Valve Pre  Manufactu  Lodi Iron	essure Class _		

<sup>\*</sup> 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.

#### FORM NPV-1 (Back)

(a) Palein-		Manufacturer	Remarks
(c) Bolting			
		,	
		-	
<del></del>			
(d) Other Parts			
Body(Plate)	ASME-SA-516 Gr. 70	Lukens Steel Comp	anv
Ht #D6264			
Slab 5			
<del></del>			
			_
			***************************************
ydrostatic test <u>1100</u>	psi . Disk Differential test pressure	200 psi.	
sunction of the YOME	Lode for Nuclear Power Plant Com		ion <u>1974</u>
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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.

structed this pump, or valve, in accordance with the ASME Code, Section III.

Date: 03/21/01

Sheet: 1 Of 1

Unit: Not Applicable



## 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.
  - 2) Surface finished the grooved surfaces in the spare relief valve discharge flange.
  - 3) Drilled holes in the spare relief valve discharge flange.
  - 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. ASME Section XI Plan No 2-1746 has been issued to remove the installed male connector and existing weld metal and weld new male connector using the correct weld metal. In addition, new cap will be installed on the male connector.

# **EMERGY**NORTHWEST

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

<b>emarks:</b> See attach			Test Temperature: ° F Temperature: ° F
	ed NV-1 Code Data Report (	ior the spare relief valve Seria	al No 138433-1-1.
	CER	TIFICATE OF COMPL	IANCE
o the rules of the Type Code Symbo	e statements made in a ASME Code, Section of Stamp: Not Applicable horization No.: Not Appli	XI.	e correct and this replacement conforms
Expiration Date: No Prepared By Kuk	ot Applicable  Level 1 Supplies Singh - Program Lead En	Signed By	Kuldip Singh - Program Lead Engineer (PLE)
)ate	5/2/01	Date	3 21 01
	CERTIFICA	ATE OF INSERVICE IN	ISPECTION
essel Inspectors phoston, Rhode Islanticology wher has perfore accordance with y signing this cell phostonicology	and the State of Wash and have inspected the following to The following and the requirements of the following the examinations are the examinations are the examinations are the examinations are the following the followi	ington and employed be components describe and state to the taken corrective measthe ASME Code, Section for his employed corrective measures	er makes any warranty, expressed or s described in this Owner's Report.
urthermore, neiti	er the Inspector nor h	ny kind arising from or	able in any manner for any personal connected with this inspection.
Inspect  ate 3/24/0	or's Signature	Commissions	National Board, State, and Endorsements

	FORM NV-1 CERTIFICATE As Require	HO' FRS' DAT	A REPORT	FOR PRESSURE SME Code, Section	/ WACHING	
1	Kun  Manufactured and certified by Lon	kle industries ergan Valve Divi	inc. ision, 8222	Bluffton Rd., For	rt Wayne TN 469	Pg. 1 of _2
2	. Manufactured for Wash Pub Pwr	Supply, Accts I	Pay MD 055, 1	e and address of NV Certific O Box 968, Richl and address of Purchaser)	and VA 99352_0	968 11 1 1 2 1
3	. Location of installation Wash Pub	Pwr Supply, WMP	-2 OFS Whse (	Complex, WHS #1,	North Power Plt	Loop, Richland, WA
	. Valve ND30FS021-DG Orifice			(maine and address)	Outlet size	ze <b>2**</b>
	. ASME Code, Section III, Division 1: _	1974 (edition)	WIN	ER 1974		N/A
6	Type SPRING (spring, pilot or power operated) (see	427	FIXED	450° F		(Code Case no.)
	(spring, pilot or power operated) (se	rt pressure, psig)	(blowdown, psi)	(rated temp.)	641 (hydro, test, psig, inlet)	at 33° MIN.
	Identification 138433-1-1	N/A		34 Rev		To the second residence of
	(Cert. Holder's serial no.)	(CRN)		drawing no.)	N/A (Nat'l, Bd. no.)	1994
8.	Control ring settings 2 notche	es down			(110.11.00.110.)	(year built)
9.	Pressure retaining items:	•	13843	3-1-1 (LP	CS-RV-18)	
		Serial No. or Identification		Mat'l. Sp Including Type	•	Tensile Strength
	Body	T4710-1		SA-216 WCB		
	жыныкисиосык Сар	J1592-5		SA-216 WCB		70 ksi
	Sespervace Bonnet	T2633 <del>-9</del>		SA-216 WCB		70 ksi
	Nozzie	23016		SA-479 TY 316		70 ksi
	Disk	35492		SA-479 TY 316		75 ksi
		94918		SA-479 TY 316		75 ksi
		701152		SA-479 TY 316		75 ksi
	ASSESSED Spring Step	38003		SA-479 TY 316		75 ksi
		AJ7182		A-313 TY 316		75 ksi *
		8079541/N4C		SA-194 GR 2H		N/A
		8866612		SA-193 GR B7		125 ksi
10.	(steam c	6.4 GPM) or fluid, lb/hr)	@10%		certified by the Natio	nai Board <u>4-16-85</u>
11.		30091		SA-479 TY 316		75 ksi
		30091		SA-479 TY 316		75 ksi
	Plug	18450		SA-479 TY 316		75 ksi
	* Spring exempt from material	l requirements c	of NC-2000 bu		equirements of N	
)aci	on Specification and the D. Mrs.	CERT	TIFICATION OF	DESIGN		
	gn Specification certified by <u>D. Mur</u> gn Report certified by N/A			P.E. State	<u>WA</u> Reg	. no. <u>12542</u>
Jesi	gn Report certified byN/A			P.E. State <u>N</u>		. no. <u>N/A</u>
We o	ertify that the statements made in this ivision 1.	CERTIF	FICATE OF COM	MPLIANCE conforms to the rule	s for construction of	the ASME Code, Section
IV C	ertificate of Authorization NoN	2853			November 10 16	201

Name \_

Kunkle Industries Inc. Lonergan Valve Division

(NV Certificate Holder)

(authorized representative)

<sup>\*</sup> Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8½ × 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.

### FORM NV-1 (Back - Pg. 2 of \_\_\_\_\_)

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 Pro of Michigan and employed by RSBI & I Co.
Tuly 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 7-17-94 Signed Fred March Laugeommissions N13 7444 (N1314), Ind 84D (Authorized inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no.]

Fu B/1/94

Date: 06/20/01

Sheet: 1 Of 1

Unit: Not Applicable



## 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, 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(3)-1	WPPSS *	LPCS(3)-1	N/A	N/A	1983	**************	Yes, Code Class 2
LPCS(1)-2	WPPSS*	LPCS(1)-2-P1	N/A	N/A	1984		Yes, Code Class 2
LPCS-RV-18	Lonergan	509258-70-1	N/A	N/A	1978	Replaced	Yes, Code Class 2
LPCS-RV-18	Lonergan	138433-1-1	N/A	N/A	1994	Replacement	Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing relief valve LPCS-RV-18. The replacement work was performed as follows:
  - 1) Removed existing relief valve LPCS-RV-18, Serial No 509258-70-1.
  - 2) Performed VT-3 visual examination on the existing studs for the relief valve inlet joint. VT-3 visual examination results acceptable.
  - 3) Performed VT-3 visual examination on the existing nuts for the relief valve inlet joint. VT-3 visual examination results acceptable.
  - 4) Performed VT-3 visual examination on the existing studs for the relief valve outlet joint. VT-3 visual examination results acceptable.
  - 5) Performed VT-3 visual examination on the existing nuts for the relief valve outlet joint. VT-3 visual examination results acceptable.
  - 6) Installed replacement relief valve LPCS-RV-18, Serial No 138433-1-1.
  - 7) Reinstalled VT-3 visually examined existing studs and nuts for the relief valve inlet joint.
  - 8) Reinstalled VT-3 visually examined existing studs and nuts for the relief valve outlet 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 VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve outlet joint. No evidence of leakage during the pressure test.

- 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 LPCS-RV-18, Serial No 138433-1-1 inlet side is Low Pressure Core Spray (LPCS) piping system LPCS(1)-2-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 the replacement relief valve LPCS-RV-18, Serial No 138433-1-1 outlet side is Low Pressure Core Spray (LPCS) piping system LPCS(3)-2. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve LPCS-RV-18, Serial No 138433-1-1 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1974 Addenda requirements.

### EMERGY NORTHWEST

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure X Other
Test Pressure: 325/38.8 Psig Test Temperature: 76/80° F
Component Design Pressure: 550/100 Psig Temperature: 212° F
9. Remarks: 1) See attached NV-1 Code Data Report for the replacement relief valve LPCS-RV-18, Serial No 138433-1-1. 2) VT-2 visual examination to confirm pressure boundary integrity of the replacement relief valve LPCS-RV-18, Serial No 138433-1-1 inlet bolted joint was performed during system nominal operating pressure. 3) * VT-2 visual examination to confirm pressure boundary integrity of the replacement relief valve LPCS-RV-18, Serial No 138433-1-1 outlet bolted joint was performed during 10CFR50, Appendix J Local Leak Rate Test (LLRT). 4) Test pressure of 325 Psig and test temperature of 76° F is for relief valve inlet joint. Component design pressure of 550 Psig and design temperature of 212° F is for the relief valve inlet piping. 5) Test pressure of 38.8 Psig and test temperature of 80° F is for relief valve outlet joint. Component design pressure of 100 Psig and design temperature of 212° F is for the relief valve outlet 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   Sup   Signed By   Kuldip Singh - Program Lead Engineer (PLE)   Kuldip Singh - Program Lead Engineer (PLE)
(10.10)
Date 6 2 01 Date 6 2 01
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 3/1/1/1/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/
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.    The first commissions   The first commissions   The first commissions
Date

夏季本,深

PLAN NO. 2-1677 VACUUM RELIEF VALVES\* FORM NV-1 CERTIFICATE HOSSERS' DATA REPORT FOR PRESSURE VACUUM
As Required by the Provisions of the ASME Code, Section III, Division 1 Pg. 1 of \_2 Kunkle industries inc.

. 1.	Manufactured and certified by	Lonergen Value Divi	sion, 8222	Bluffton Rd., Po	et Wayne, IN	46809 (widel sups
	Manufactured for Wash Pul					6 H218 L
4.	Manufactured for		(nema	and address of Purchaser)	LEAKI, VA 37.	372-0900
3.	Location of Installation Visah	Pub Pur Supply, WAP-	2 OFS Whee	Complex, WHS #1,	North Power	Plt Loop, Richland, WA 99352
4.	Valve ND30FS021-DG	Orifice size658	Nom.	inlet size 1 1/2		tlet size2"
		(11.4)		•	<b>L</b> I	šin.;
5.	ASME Code, Section III, Division	on 1:		TER 1974	2	N/A
	COPTAGE			****	(cless)	(Code Com no.)
6.	Type SPRING (spring, pilot or power operated)	(set pressure, paint)	FIXED	450° F	641 Onydro, seet, pee	at 33° KIN. of
			=			
7.	Identification 138433-1-1 (Cort. Holder's seri	N/A (CRN)	A930	334 Rev	N/A (Net'l, 84, ne.)	1994
				tolewing no./	(rest r. se. ne.)	(year built)
8.	Control ring settings 2 x	DUCTIES COMIT	Dec 0	1/10 01		
_		L	PCS-K	V-18,5 NI	3843	3-1-1
9.	Pressure retaining items:			•	*	
		Carial Na			_	
		Serial No. or Identification		Mat'i. S	•	Tensile
		T4710-1		Including Typ	pe or Grade	Strength
	Body	J1592-5	<del></del> -	SA-216 WCB		70 ksi
	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	T2633-9		SA-216 WCB SA-216 WCB	· · · · · · · · · · · · · · · · · · ·	70 ksi
		23016	<del></del>	SA-479 TY 310	۷	70 ksi
	Nozzie	35492		SA-479 TY 310		75 ksi
	Disk	94918				75 ksi
	20002003888888Comp. Scree			SA-479 TY 310		75 ksi
	Spring Step	380C3	<del></del>	SA-479 TY 310		75 ksi
	• • •	AJ7182		SA-479 TY 316		75 ksi
	Spring	8079541/N4C	<del></del>	A-313 TY 316		*
		8866612		SA-194 GR 2H		
	/ONTENTIED THE PLACE 11			SA-193 GR B7		125 ksi
	(CONTINUED IN BLOCK 11 Relieving capacity 98,200		10	~		4.16.05
10.	Relieving capacity	(steam or fluid, fb/hr)	@10		s certified by th	e National Board <u>4-16-85</u>
						144.00
11.	Remarks: Gag Plug Screw			SA-479 TY 310	6	75 ksi
	Ring Pin Screw			SA-479 TY 310	5	75 ksi
	Plug	18450	· · · · · · · · · · · · · · · · · · ·	SA-479 TY 316	6	75 ksi
		· <del> · · · · · · · · · · · · · · · · ·</del>				
-	* Spring exempt from ma	terial requirements of	of NC-2000	but meets design	requirement	s of NC-3595.
		OF O			·	
Des	ion Specification certified by	D. Murphy	TIFICATION (	*	WA	Res. no. 12542
_	ign Report certified by	N/A		P.E. State _		110. 110. 110. 110. 110. 110. 110. 110.
Des	ign report certified by			P.E. State _	WA	Reg. noN/A
		0000	510455 05 0			
18/	certify that the reasonance		FICATE OF C			
	Division 1.	s as this report are correct a	no that this va	ive conforms to the re	ules for constru	ction of the ASME Code, Section
, L						
NV	Certificate of Authorization No.	N-2853			Normhan	18, 1994
	Commence of Authorization NO.	Kunkle Industries	Inc.	Expire.	s toveliber	10, 1774
Day.	= 7-27-94 Name	Lonergan Valve Div		Sand All	I Hall	Loren
J-614		(NV Certificate Hold		- Signed S - 12 State	(authorized	d representative)
		* · · · · · · · · · · · · · · · · · · ·				•

(12/88)

This form (E00042) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300



<sup>\*</sup>Supplemental information in form of fists, sketches, or drawings may be used provided (1) size is 8  $8 \times 11$ , (2) information in items 1 through 4 on this Data Report is included on each sheet. (3) eich sheet is numbered and the number of sheets is recorded at the top of this form.

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... have impected the valve described in this Data Report on and state that to the best of my knowledge and belief, the Certificate Holder has constructed this valve in accorden Hartford, CT with the ASME Code, Section III, Division 1. l ö

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 Thepector 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 7-17- 94 Signed

5 3 0

l,

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Date: 05/09/01

Sheet: 1 Of 1
Unit: Not Applicable



# 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, 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 (HPCS-RV-35)	Anderson Greenwood	97-16628 (HPCS-RV-35)	N/A	N/A	1998	Replacement	Yes, Code Class 2

- 7. Description Of Work Performed: Installed test port for spare relief valve Serial No 97-16628. The work was performed as follows:
  - 1) Machined groove in the spare relief valve discharge flange.
  - 2) Surface finished the grooved surfaces in the spare relief valve discharge flange.
  - 3) Drilled holes in the spare relief valve discharge flange.
  - 4) Installed new male connector on the spare relief valve discharge flange.
  - 5) Made required weld.
  - 6) Performed visual examination on the final weld. Visual examination results acceptable.
  - 7) Performed liquid penetrant (PT) examination on the final weld. Liquid penetrant (PT) examination results acceptable.
  - 8) Installed new cap on the male connector.

### **NOTES** -

1) The modified spare relief valve Serial No 97-16628 will be installed in the plant as HPCS-RV-35 in accordance with ASME Section XI Plan No 2-1679.

PLAN No 2-1678

# **EMERGY**NORTHWEST

	ed: Hydrostatic Pneuma Test Pressure: Psig Component Design Pressu		Operating Pressure Other _X_ No Test Temperature: ° F Temperature: ° F
Remarks: See a	attached NV-1 Code Data Report for the	he spare relief valve Seria	ul No 97-16628.
	CERTIF	FICATE OF COMPL	IANCE
			re correct and this replacement conforms
	f the ASME Code, Section XI. ymbol Stamp: Not Applicable	1	
	Authorization No.: Not Applicab	ole	
Expiration Da	te: Not Applicable		_
	MILON XICH	Signed By	Wilder Sites
Prepared By	Kuldip Singh - Program Lead Engine		Kuldip Singh - Program Lead Engineer (PLE)
Data	5/14/01	Date	5114/01
Date	3)17(0)	Date	2/14/07
	CERTIFICAT	'E OF INSERVICE I	NSPECTION
Vessel Inspect Johnston, Rhoo period //	ctors and the State of Washing de Island have inspected the c	gton <b>and employed</b> l components describ and state to th	National Board of Boiler and Pressure by Factory Mutual Insurance Company of ped in this Owner's Report during the ne best of my knowledge and belief, the asures described in this Owner's Report
Owner has pe	e with the requirements of th	e ASME Code, Sect	ion XI.
in accordance	is certificate neither the Insp		yer makes any warranty, expressed or
in accordance By signing th		I aamaatina maaane	ne doesribad in this Owner's Banart
in accordance By signing the implied, cond	cerning the examinations and	i corrective measure : emplover shall be :	es described in this Owner's Report. liable in any manner for any personal
in accordance By signing the implied, conce Furthermore,	cerning the examinations and neither the inspector nor his	s employer shall be :	liable in any manner for any personal
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P.O. 248960

PLAN NO. 2-1678,

PAGE ;

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

/ <b>1</b> .	Manufactured and certified by Al	IDERSON. GREE	AMOOD & CO	3950 GREENE	RIAR STAF	FORD. TX	77477
2.	Manufactured for WASHINGTO	N PUBLIC POWE	R SUPPLYP	.0. Box 968. R	RICHLAND. W	A 99352	
3	Location of installation WNP-2	OPS WHS Compl	lex WHS #1	North Power P	lant Loon.	Richland	I. WA 99352
<b>J</b> .				(name and address)	TRUSC. EVERS	121 211 1 1 1 1 1	<u> </u>
4.	ND70DS121ADG1572 Valve tmodel no., series no.)	fice size <u>0.394</u>	Non	n. inlet size <u>1-1/2</u>	Our	tlet size2	tofs.)
5.	ASME Code, Section III, Division	1974	W	-74	2	NANA	
	•	(edition)	- (	eddenda date)	(class) joi	5/5/99 10	ode Case no.)
6.	Type Spring tepring, pilot or power operated)	1572	Fixed	70 <sup>0</sup> F	*_5575 <u>*</u>	et _An	<u>bient</u> ∘F
		(set preseure, paig)	(blowdown, psi)	(rated temp.)	Mydro. test, psig	j. inlet)	
7.	Identification 97-16626 (Cert. Holder's serial n	NA (CRN)		N11.1313 R/B (drawing no.)	NA (Nat'l, Bd, no.)		1998 (vear built)
	ALA	i (Chit)	CROM	<del>-</del>			(Age, point)
8.	Control ring settings NA	(1) (1)		N07.0010.001			
	• to the standard	5/N 9	1-1662	B (HPCS-	RV-35)		
¥.	Pressure retaining items:		×	way sur	5		
		Serial No. or	4	Mar'l	519 01		Tensile
		Identification		Including Ty	pe or Grade		Strength
	Body	B748		SA216-WCB			70
	Bonnet or Yoke	B626		SA216-WCB			70
	Support Roas Screw Comp.	B802		SA479-316			75
	Nozzie	B695		SA479-316			75
	Disk	B607		SA479-316			75
	Spring Washers	B803		SA479-316			75
	Adjusting Screws-Screwring	pin B612		SA479-316			75
	Spinger Stem	B806		SA479-316			75
	Spring	A3780H		A313-316			NA .
	Bolting Nut-stud	99216.G-141	6	SA194-8M			NA
	Other Items Pipe Plug	599VNF.4482	NF1	SA105			
	Diaa Ualdaa	B687	1050	(31 SA351-CF8	M		70
10.	Relieving capacity * 135 GP			Ox SWIA3-RY	s certified by the	National Boar	d 105 4/16/85
	1 5/5/99 """	rem or fluid, livrhr)	· ·				(GSTS)
. 9 9	Remarks: 9. Con't Cap	B691		SA216-WCB			70
,		ew Gag Plug B	694	SA479-316			75
		* ~	ERTIFICATION	OF :DECION			
Dasi	gn Specification certified by <u>Day</u>				WA	Reg. no	20941
	gn Report certified byNA	I III CHALL DO	<del>~</del>	P.E. State		Reg. no	NA
<b>D</b>	gii resport carained by			F.E. 31914 J		146y. 110	
	certify that the statements made in livision 1.		ITIFICATE OF (		ules for construc	tion of the ASI	ME Code, Section
NIV 4	Certificate of Authorization No	N-2825		. · · · · · · · · · · · · · · · · · · ·	9/10/9	9	
				Expire		2	
Date	12/17/9 8 Name And	ierson, Green	wood & Co.	_ SignedSup	Ra. Park	representative)	

<sup>\*</sup>Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8½ × 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.

FORM NV-1 (Back - Pg. 2 of \_2\_)

Certificate Holder's Serial No.97-16626

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 and employed byC_U_I_C
of Boston, MA have inspected the valve described in this Data Report on
12-17-98, 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 compected/with this inspection.
Date 12-17-98 Signed Will Faull Commissions TOX 803
(Authorized inspector)   Nat'l. Bd. linct. endorsements) and state or prov. and no.)

Date: 06/23/01

Sheet: 1 Of 1

Unit: Not Applicable

# **EMERGY**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(3)-1 HPCS(4)-4CL2 HPCS-RV-35 HPCS-RV-35	WPPSS * WPPSS * Lonergan Anderson Greenwood	HPCS(3)-1 HPCS(4)-4CL2-P2 509258-73-1 97-16626	N/A N/A N/A N/A	N/A N/A N/A N/A	1983 1983 1978 1998	Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing relief valve HPCS-RV-35. The replacement work was performed as follows:
  - 1) Removed existing relief valve HPCS-RV-35, Serial No 509258-73-1.
  - 2) Performed VT-3 visual examination on the existing studs for the relief valve inlet joint. VT-3 visual examination results acceptable.
  - 3) Performed VT-3 visual examination on the existing nuts for the relief valve inlet joint. VT-3 visual examination results acceptable.
  - 4) Performed VT-3 visual examination on the existing studs for the relief valve outlet joint. VT-3 visual examination results acceptable.
  - 5) Performed VT-3 visual examination on the existing nuts for the relief valve outlet joint. VT-3 visual examination results acceptable.
  - 6) Installed replacement relief valve HPCS-RV-35, Serial No 97-16626.
  - 7) Reinstalled VT-3 visually examined existing studs and nuts for the relief valve inlet joint.
  - 8) Reinstalled VT-3 visually examined existing studs and nuts for the relief valve outlet 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 VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve outlet joint. No evidence of leakage during the pressure test.

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) Lonergan relief valves are now being manufactured by Anderson Greenwood
- 3) The existing ASME Code Stamped piping system applicable to the replacement relief valve HPCS-RV-35, Serial No 97-16626 inlet side is High Pressure Core Spray (HPCS) piping system HPCS(4)-4CL2-P2. This piping system is certified to comply with ASME Section III. Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The existing ASME Code Stamped piping system applicable to the replacement relief valve HPCS-RV-35, Serial No 97-16626 outlet side is High Pressure Core Spray (HPCS) piping system HPCS(3)-1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 5) The replacement relief valve HPCS-RV-35, Serial No 97-16626 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1974 Addenda requirements.



, <u> </u>	Operating Pressure X Other *
Test Pressure: 405/38.7 Psig	Test Temperature: 86/76° F
Component Design Pressure: 1575/100 Psig	Temperature: 212° F
P. Remarks: 1) See attached NV-1 Code Data Report for the replacement relief of VT-2 visual examination to confirm pressure boundary integrity of the replacement was performed during system nominal operating pressure.  1 VT-2 visual examination to confirm pressure boundary integrity of the replacemented joint was performed during 10CFR50, Appendix J Local Leak Rate Test (LLI) Test pressure of 405 Psig and test temperature of 86° F is for relief valve inlet joint pressure of 212° F is for the relief valve inlet piping.  2 Test pressure of 38.7 Psig and test temperature of 76° F is for relief valve outlet piping.	ent relief valve HPCS-RV-35, Serial No 97-16626 inlet botted nent relief valve HPCS-RV-35, Serial No 97-16626 outlet RT). pint. Component design pressure of 1575 Psig and design
CERTIFICATE OF COMP	PLIANCE
We certify that the statements made in this Owner's Report 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 - Program Lead Engineer (PLE)	N. 04 001
Date Date	6 23 (0)
CERTIFICATE OF INSERVICE	INSPECTION
I, the undersigned, holding a valid commission issued by the Vessel Inspectors and the State of Washington and employed Johnston, Rhode Island have inspected the components describered (1/4/0) to 7/10/0 and state to Owner has performed examinations and taken corrective means in accordance with the requirements of the ASME Code, See By signing this certificate neither the Inspector nor his empliphed, concerning the examinations and corrective means Furthermore, neither the Inspector nor his employer shall be injury or property damage or a loss of any kind arising from	the by Factory Mutual Insurance Company of ribed in this Owner's Report during the the best of my knowledge and belief, the easures described in this Owner's Report ction XI.  Soloyer makes any warranty, expressed or ures described in this Owner's Report.  The liable in any manner for any personal
Inspector's Signature  Date 7/10/0/	National Board, State, and Endorsements

_			As nequired by the
	FORM	NV-1	CERTIFICATE HOLDERS As Required by the
			5/0 \$189230000.013

P.O. 248960 PLAN No. 2-1679

PAGE

DERS' DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES\* the Provisions of the ASME Code, Section III, Division 1 Pa. 1 of

I. Manufactured and ce	rtified by ANDERSON	. GREENWOOD	& CO. 3	50 GREENBR	IAR. STAF	FORD. TX 77477
2. Manufactured for _W	ASHINGTON PUBL	IC POWER SU				A 99352
		2 Complex M	ine ITE CIT	IN POWER PIE	int Loop.	Richland, WA 9935
ND70DS121AD(	G1572 ——— Orifice size —	0.394	Nom inlet	1-1/2	Out	2
. ASME Code, Section	III, Division 1: <u>19</u>	74	<u>W-74</u>		2	NA (Code Case no.)  inlet) at Ambient
Canda a	157	(edition)	leddenda d	rate)	(class) jol	5/5/99 (Code Case no.)
. Type <u>Spring</u> (spring, pilot or pow	er operated) (set pressure	E F1X	ed	70°F *	5575	at Ambient
				1313 R/B		
. Identification 97-3	Holder's serial no.)	ICRNI	Idrawir	1313 K/D	(Nat'l. Bd. no.)	1998 (year built)
. Control ring settings _	NA		CBOM NO7.	0010.001 R	'B	
		110/5	-0V-35	5, S/N 9	7-166	26
. Pressure retaining item	ns:	TI C3		, 3/10	V2 a	0.0-
					Wil	dip Lups
	Serial fi Identifu			Mat'l. Spe	:c.,	6/20/0 Tensile
-	B748			Including Type	or Grade	Strength
Body _	B626			SA216-WCB	<del></del>	<u>70</u>
Bonnet or Yoke				<u>SA216-WCB</u> SA479-316	· · · · · · · · · · · · · · · · · · ·	
Nozzie	8695			SA479-316	<del></del>	
Disk	B607	<del></del>		SA479-316		75
Spring Washers _	B803	<del></del>		SA479-316		75
Adjusting Screws - SC		512		SA479-316		
spmone Stem _	8806			SA479-316		75
Spring _	A3780	)H		A313-316		NA NA
Bolting Nut-stud_	99216	G-1416		SA194-8M		NA NA
Other Items Pipe P	lug 599VN	F.4482NF1		SA105		70
Disc Holder Stud	B687	219 (	1865 577	SA351-CF8M		70
Relieving capacity *	135 GPM 88666		± 10×	SA193-B7 overpressure as c	ertified by the	70 105 National Board 1054/1
105		(IW)	(psi)			(date)
Remarks: 9. Con	t Cap B69			SA216-WCB		70
	Screw Gag	Plug B694		SA479-316		75
						······································
				_		
			ATION OF DES			
ign Specification certifie	ed by <u>David Mich</u>					Reg. no20941
sign Specification certifie				P.E. State WA		
ign Report certified by _	NA NA	centifica	TE OF COMPLI	P.E. State WA P.E. State NA ANCE		Reg. no. NA
ign Report certified by	NA NA	centifica	TE OF COMPLI	P.E. State WA P.E. State NA ANCE		
certify that the statement Division 1.	NA  nts made in this report	CERTIFICA	TE OF COMPLI	P.E. State WA P.E. State NA ANCE		Reg. no. NA
ign Report certified by certify that the statement Division 1.	NA  nts made in this report	CERTIFICA	TE OF COMPLI	P.E. State WA P.E. State NA ANCE		neg. no. NA
ign Report certified by	NA  Ints made in this report tion No. N=2825	CERTIFICA	TE OF COMPLI at this valve co	P.E. State WA P.E. State NA ANCE Iforms to the rules Expires	9/10/99	neg. no. NA

Supplemental information in form of lists, sketches, cr drawings may be used provided (1) size is 8½ × 11, (2) information in items 1 through 4 on this Data Report s included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NV-1 (Back - Pg. 2 of 2\_)

Date: 07/09/01

Sheet: 1 Of 1

Unit: Not Applicable



# 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 Pressure Vessel (RPV)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 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
RPV LPRM LPRM	CBI Nuclear General Electric* General Electric*	T45 94S0434 00S11723	9 N/A N/A	N/A N/A N/A	1974 1994 2001	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Replaced existing Local Power Range Monitoring (LPRM) incore assembly. The replacement work was performed as follows:

1) Removed existing Local Power Range Monitoring (LPRM) incore assembly Serial No 94S0434 from the Reactor Pressure Vessel (RPV) Core Location No 24-09.

2) Installed replacement Local Power Range Monitoring (LPRM) incore assembly Serial No 00S11723 at the Reactor Pressure Vessel (RPV) Core Location No 24-09.

### NOTES -

1) \* General Electric (GE) Reuter-Stokes.

2) ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda for the Reactor Pressure Vessel (RPV).

3) ASME Section III, Code Class 1, 1977 Edition with Summer 1977 Addenda for the replacement Local Power Range Monitoring (LPRM) incore assembly Serial No 00S11723.

PLAN No 2-1680

# **EMERGY**NORTHWEST

Tests Conducte	d: Hydrostatic	•	I Operating Pressure Test Temperature: ° F Temperature: ° F	None X					
Remarks: See attached N-2 Code Data Report for the replacement Local Power Range Monitoring (LPRM) incore assembly Serial No in 1723.									
	CER	RTIFICATE OF COM	PLIANCE						
to the rules of Type Code Sy	the ASME Code, Section mbol Stamp: Not Applicable Authorization No.: Not App	n XI.	are correct and this replaced	ment <i>conforms</i>					
Prepared By _	Kuldip Singh - Program Lead E	Signed ingineer (PLE)	By Kuldip Singh - Program Lea	ad Engineer (PLE)					
Date	7/9/01	Date	7/9/01						
Johnston, Rhod period	gned, holding a valid compositions and the State of Waste Island have inspected to 7-0/ to 7-24-rformed examinations are with the requirements of certificate neither the light inspector noi	shington and employed the components designed the components designed the corrective reports of the ASME Code, Significant corrective measure his employer shall the corrective s	e National Board of Boiler I by Factory Mutual Insuranc ribed in this Owner's Repo the best of my knowledge easures described in this	e Company of ort during the and belief, the Owner's Report , expressed or er's Report. any personal					
<u> </u>	Apple Signature 4-01	Commiss	National Board, State, and	d Endorsements					

### FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL Lucy Sugs NUCLEAR PARTS AND APPURTENANCES\*

As Required by the Provisions of the ASME Code, Section III Not to Exceed One Day's Production

Pg. 1 of 2

1. Manufactured and certified by	GE Reuter-Stokes, I	nc., 84	199 Darrow Road, T	winsburg, Ol	nio 44087	
	· (name	e and addr	ms of NPT Certificate Plotder)			
2. Manufactured forColum	nbia Generating Station, 1	<u>energy</u>	Northwest, Richian	ia, wasningu	on 99332	
3. Location of installation		tation,		Richland, W	ashington	99352
4 T PS C6 1400 262	· · · · · · · · · · · · · · · · · · ·	•	N/A	N/A		2001
4. Type: RS-C6-1400-262 (drawing no.)	(met'l spec. no.)		(termile strangth)	(CRN)		(year built)
· • ·	• •	e.	ımmer 1977	1	7	V/A
5. ASME Code, Section III, Divis	(edition)		addenda date)	(class)		ie Case no.)
6. Fabricated in accordance with	Const. Spec. (Div. 2 only)	N/	A Revision	N/A	Date	N/A
7. Remarks: Certified	Design Specification	CDS-C	-5049-03			
		CDR-0	C-5042-09			
	GE Reuter-Stokes, Inc.					
8. Nom. thickness (in.) N/A	Min desire this lease (in )	NI/A	Dia ID (4 & in )	N/A Lengt	h overall (f	t&rin.) N/A
8. Nom. thickness (in.) N/A	_ Min. design thickness (in.)	11/2	Dist 1D (11 & 116)	747 Perie	aroveren (r	· · · · · · · · · · · · · · · · · · ·
9. When applicable, Certificate F	iolders' Data Reports are atte	acnea n	or each item of trus rep	OIL .		<u></u>
Part or Appurtenance	National		Part or Appurte			ational
Serial Number	Board No.	]	Serial Numb	er		ard No. erical Order
	in Numerical Order				in Num	encai Order
(1) 00S11723	N/A		(26)			
(2)			(27)			
(3)			(28)			
(4)			(29)			
(5)			(30)			
(6)			(32)			
(7) (8)		-	(33)			
(9)			(34)			
(10)			(35)			
(11)		$\neg$	(36)			
(12)			(37)			
(13)			(38)			
(14)			(39)			
(15)			(40)			<u>,</u>
(16)			(41)			
(17)			(42)			
(10)			(43)	1		

10. Design pressure 1250 PSIG psi. Temp. Vessel 575°F. Seal 300°F. Hydro. test pressure 1925 PSIG at temp. 75 °F.

(44)

(45)

(46)

(47)

(48)

(49)

(50)

(19)

(20)

(21)

(22)

(23)

(24)

(25)

<sup>(</sup>when applicable)

\*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 81/2 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.

### FORM N-2 (Back - Pg. 2 of 2)

	Certif	ficate Holder's S	Serial Nos. <u>N</u>	A through N/A				
CERTIFICATION	OF DESIGN							
Design specifications certified by Surinder L. Kampani (when applicable)	P.E. State	<u>OH</u>	Reg. no.	E-034113				
Design report* certified by  Bill A. Balazs (when applicable)	P.E. State	CA_	Reg. no.	MF348				
CERTIFICATE OF CO	OMPLIANCE							
We certify that the statements made in this report are correct and tha conforms to the rules of construction of the ASME Code, Section III,	t this (these) _ Division 1.	Assembly						
NPT Certificate of Authorization No. N-2703	E	xpires	September	16, 2003				
Date 3360/ Name GE Reuter-Stokes, Inc. (NPT Certificate Holder)	Signed <u>~</u>	2 jalla	(authorized represent	Carry)				
CERTIFICATE OF IN	CERTIFICATE OF INSPECTION							
I, the undersigned, holding a valid commission issued by the Natio State or Province of OHIO and employed by H.S.B. have inspected these items described in this Data Report on 3-knowledge and belief, the Certificate Holder has fabricated these per Section III, Division 1. Each part listed has been authorized for stamp By signing this certificate, neither the inspector nor his employer mequipment described in this Data Report. Furthermore, neither the in any personal injury or property damage or loss of any kind arising from the described in this Data Report.  Signed Authorised Inspector	I. & I. Co.  26-200  arts or appurt  bing on the da  nakes any wa  nspector nor b  om or connect	of and and enances in acte shown abour anty, expressing employer and with this in the control of	HARTFORI state that to coordance with ve. ssed or implies shall be liable: inspection.	the best of my the ASME Code, ed, concerning the in any manner for				

Date: 02/26/01

Sheet: 1 Of 1
Unit: Not Applicable

### EMERGY 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: Standby Liquid Control (SLC) 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
SLC(2)-3S SLC(1)-1S SLC-RV-29A SLC-RV-29A	WPPSS * WPPSS * Lonergan Lonergan	SLC(2)-3S-P1 SLC(1)-1S-P1 137180-1-1 509258-82-1	N/A N/A N/A N/A	N/A N/A N/A N/A	1983 1982 1994 1978	Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing relief valve SLC-RV-29A. The replacement work was performed as follows:
  - 1) Removed existing relief valve SLC-RV29A, Serial No 137180-1-1.
  - 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) Installed replacement relief valve SLC-RV-29A, Serial No 509258-82-1.
  - 5) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve outlet joint. No evidence of leakage during the pressure test.

- 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 valve SLC-RV-29A, Serial No 509258-82-1 was installed is Standby Liquid Control (SLC) piping system SLC(2)-3S-P1 (For inlet). 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 in which the replacement valve SLC-RV-29A, Serial No 509258-82-1 was installed is Standby Liquid Control (SLC) piping system SLC(1)-1S-P1 (For outlet). This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement valve SLC-RV-29A, Serial No 509258-82-1 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1974 Addenda requirements.

# **EMERGY**NORTHWEST

FORM NIS-2 OWNER'S	REPORT FOR	REPAIRS OR	REPLACEMEN	ITS (Back)
--------------------	------------	------------	------------	------------

Tests Conducted: Hydrostatic Pneumati Test Pressure: Static Head Component Design Pressure	Test Temperature: 84° F
<b>Remarks:</b> 1) See attached NPV-1 Code Data Report for Component design pressure of 1400 Psig is relief valve set	the replacement valve SLC-RV-29A, Serial No 509258-82-1. pressure and design temperature of 200° F is relief valve rated temperature.
CERTIFIC	CATE OF COMPLIANCE
	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	
A D. O	1 2 2 2 0 1
Prepared By Vuldub Sug	Signed By Kuldio Singh - Frogram Lead Engineer (PLE)
Kuldip Singh - Program Lead Engineer	
Date 7/26/81	Date
·	
CERTIFICATE	OF INSERVICE INSPECTION
Vessel Inspectors and the State of Washington Johnston, Rhode Island have inspected the conperiod ////////////////////////////////////	ion issued by the National Board of Boiler and Pressure on and employed by Factory Mutual Insurance Company of emponents described in this Owner's Report during the and state to the best of my knowledge and belief, the seen corrective measures described in this Owner's Report
implied, concerning the examinations and co	ctor nor his employer makes any warranty, expressed or corrective measures described in this Owner's Report.
Furthermore, neither the Inspector nor his e	employer shall be liable in any manner for any personal kind arising from or connected with this inspection.
11/1/1/	- Commissions 7486W/7484 NEI [S
Inspector's Signature	National Board, State, and Endorsements
2/1/2/	·
Date	<del></del>
I ' '	

b. Dar Stock and Forging. W9G BR 215 1501B Support Roda, 02607 ASME SA-479 Type 316 Norsle **G8864** ASHE SA-479 Type 316 Disc 02607 ASHE SA-479 7 ype 316 Spring Tushers G9913 ASME "A-4."9 Type 316 Adjusting Screw **G9938** ASHE SA-479 Type 316 Spindle

Corming Stude - Cert. of Conformance ASHE SA-320, GR. 38  d. Beiling Nuts - Cert. of Conformance ASHE SA-320, GR. 38  e. Other Parts such as Pilot Components  Cap 02977 ASHE SA-479 Type 316  BOVE 01 70 Parts and as Pilot Components  Date 22.79 . 3 Parts 19  *** Blowdown not specified by code.  *** Equify that the statements made in this report are correct.  Date 22.79 . 3 Parts 19  *** Blowdown not specified by code.  *** Certify that the statements made in this report are correct.  Date 29.79 . 3 Parts 19  *** Blowdown not specified by code.  *** Certify that the statements made in this report are correct.  Date 29.79 . 3 Parts 19  *** Blowdown not specified by code.  *** Certify that the statements made in this report are correct.  Date 29.79 . 3 Parts 19  *** Blowdown not specified by code.  *** Certify that the statements made in this report are correct.  Date 29.79 . 3 Parts 19  *** Blowdown not specified by code.  *** Certify that the statements made in this sepont and the State or Province of Parts 20.79 . A. High 19  *** CERTIFICATE OF SIOP INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Bolier and Pressure Vessel Inspector and the State or Province of Parts 20.79 . Have inspected the repliement detailed in this Date Report on Parts 20.79 . Have inspected the repliement detailed in this Date Report on Parts 20.79 . Have inspected the repliement detailed in this Date Report on Parts 20.79 . Have inspected the repliement detailed in this Date Report parts 20.79 . Have inspected the repliement detailed in this Date Report parts 20.79 . Have inspected the repliement detailed in this Date Report parts 20.79 . Have inspected the repliement detailed in this Date Report parts 20.79 . Have inspected the repliement detailed in this Date Report parts 20.79 . Have inspected the repliement detailed in this Date Report parts 20.79 . Have inspected the repliement detailed in this Date Report parts 20.79 . Have inspected the repliement detailed in this Date Report parts 20.79	••		•	Identification leat No.	including Type or Grade	
Study - Cert. of Conformance  ASME SA-320, GR. 38  ASME SA-194, GR. 8  ASME SA-194, G					ASTN: A-313 Type 316	
d. belting Nurs - CCTT. of Conformance  ASNE SA-194, GR. 8  cop 02977 ASHE SA-479 Type 316  BOVE	c. Hems	Stods -	· Cert. of	Conformance		
BOVE     GERL       GERL	d. Belting	Nurs	Cert. of	Conformance		· · ·
BOVE						
## Blowdown not specified by code.  ## Blowdown not specified by c	e. Other Par	ts auch as Pil	ot Component	\$		
## Blowdown not specified by code.    Sign	Cap '	•	· .	02977	ASME SA-479 Type 316	•
*** Blowdown not specified by code.  *** Blowdown not specified by code.  *** Exercisity that the statements made in this report are correct.  *** Date 22.79  *** Blowdown not specified by code.  *** Certify that the statements made in this report are correct.  *** Date 25. 19	1 .		•			-
*** Blowdown not specified by code.  *** Blowdown not specified by code.  *** Exercisity that the statements made in this report are correct.  *** Date 22.79  *** Blowdown not specified by code.  *** Certify that the statements made in this report are correct.  *** Date 25. 19		<del> </del>				<del></del>
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*** Blowdown not specified by code.  *** Certificate of Authorization No. N-1443  *** Expires Aur. 9, 1979  *** CERTIFICATE OF SIOP INSPECTION    Aur. 9, 1979    CERTIFICATE OF SIOP INSPECTION    Aur. 1970   Aur. 1971	• •	•	•			
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MIE 22.79. 3 PROPERTY.  *** Blowdown not specified by code.  *** Ectility that the statements made in this report are correct.  **Date 2.79. 19	•	U/				•
Exercisity that the statements made in this report are correct.  Date 23.79.  Signed J. E. LONERGAN CO.  Manufacturer  L. A. NICKE  Certificate of Authorization No.  N-1443  CERTIFICATE OF SHOP INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Roller and Pressure Vessel Inspectors and the State or Province of Penna.  and employed by Hartford Stm. Boiler 1.61. Co.  of Hartford, Conn.  Report on 19.28 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 and his employer makes any warranty, expressed or implied, concerning the equipment described in this D ta Report. Furthermore, neither the Inspector are 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.  WEG BR 215 1:018  WEG BR 215 1:018	<u></u>	71	- KOVE	0	· · · · · · · · · · · · · · · · · · ·	•
The certify that the statements made in this report are correct.  Date 19  Signed J. E. LONERGAN CO.  Manufacturer  Certificate of Authorization No.  N-1443  CERTIFICATE OF SHOP INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Roller and Pressure Vessel inspectors and the State of Province of Penna.  and employed by Hartford Stm. Boiler 1.61. Co.  of Hartford, Conn.  have inspected the equipment described in this Data Report on Del S.  By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Reports, neither the inspector and 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.  Was BR 215 10018  Was Corania sions IQ 1786		SICH A	K ·	[A4]		
Entificate of Authorization No. N-1443  CERTIFICATE OF SHOP INSPECTION  1, the undersigned, holding a valid commission issued by the National Dosed of Roller and Pleasure Vessel Inspectors and the State of Province of Penna and employed by Hartford Stm. Boiler 1.61. Co. of Hartford, Conn.  Report on No. 19, 28 and state that to the best of my knowledge and belief, the Manufacturer has constituted 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 D-ta 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.  Was BR 215 15018	D	NTE: [-22.7	9. 2%	48% 21		. 5
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Entificate of Authorization No. N-1443  CERTIFICATE OF SIIOP INSPECTION  Li, the undersigned, holding a valid commission issued by the National Doard of Roller and Pressure Vessel Inspectors and the State of Province of Penna. and employed by Hartford Stm. Boller I.61. Co. of Hartford, Conn.  Report on Nat. 19,28 and state that to the best of my knowledge and belief, the Manufacturer has constituted 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 D-ta Report, Furthermore, neither the inspector nor his employer abalt 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.  Was BR 215 15018				• • • • • • • • • • • • • • • • • • • •	•	
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ing the equipment described in this D-ta 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.  Was BR 215 15018  Was BR 215 15018						
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(Inspector) Commissions (National Board, State, Previous and Ma.)	11/100=	00		. P	1786	۶.
	Marce	(Inspector)	world	Commissions	(National Doord, State, Prevince and Na.)	

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Date: 02/26/01

Sheet: 1 Of 1
Unit: Not Applicable



# 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: Standby Liquid Control (SLC) 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
SLC(2)-3S SLC(1)-1S SLC-RV-29B SLC-RV-29B	WPPSS * WPPSS * Lonergan Lonergan	SLC(2)-3S-P1 SLC(1)-1S-P1 137180-1-2 139407-1-2	N/A N/A N/A N/A	N/A N/A N/A N/A	1983 1982 1994 1994	Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing relief valve SLC-RV-29B. The replacement work was performed as follows:
- 1) Removed existing relief valve SLC-RV-29B, Serial No 137180-1-2.
  - 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) Installed replacement relief valve SLC-RV-29B, Serial No 139407-1-2.
  - 5) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve outlet joint. No evidence of leakage during the pressure test.

- 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 valve SLC-RV-29B, Serial No 139407-1-2 was installed is Standby Liquid Control (SLC) piping system SLC(2)-3S-P1 (For inlet). 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 in which the replacement valve SLC-RV-29B, Serial No 139407-1-2 was installed is Standby Liquid Control (SLC) piping system SLC(1)-1S-P1 (For outlet). This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement valve SLC-RV-29B, Serial No 139407-1-2 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1974 Addenda requirements.

PLAN No 2-1685

### EMERGY NORTHWEST

	: Hydrostatic P Test Pressure: Static H Component Design F	lead	Tes	erating Pressure X Other Mo It Temperature: 82° F Inperature: 100° F
<b>emarks:</b> 1) See a imponent design pro	ttached NPV-1 Code Data essure of 1400 Psig is relief	Report for the replacer f valve set pressure an	ment v <b>alve</b> SL id design <b>tern</b> i	C-RV-29B, Serial No 139407-1-2. perature of 100 <sup>0</sup> F is relief valve rated temperature
	C	ERTIFICATE OF	COMPLIA	NCE
	the statements made he ASME Code, Secti		Report are	correct and this replacement conforms
	bol Stamp: Not Applical			
	uthorization No.: Not A			
xpiration Date				2
	X1. 1.01. C	7.01	lament De-	Judip Such
Prepared By	(uldip Singh - Program Lea	d Engineer (PI F)	ignea By _	Kuldip Singh - Program Lead Engineer (PLE)
•	Wildlip Singn - Program Lea			11-
Date	2/26/01	D	ate	7/26/01
Vessel Inspector Johnston, Rhode Deriod //29/ Owner has performance of By signing this Implied, concert Furthermore, n	ned, holding a valid cors and the State of Walland have inspected or walland have inspected formed examinations with the requirements certificate neither the inspector reither reither the inspector reither re	Vashington and em of the components of and taken correct s of the ASME Co e Inspector nor h ns and corrective nor his employer	d by the Na aployed by s described tate to the ctive measu de, Section is employed measures shall be lia	rational Board of Boiler and Pressure Factory Mutual Insurance Company of d in this Owner's Report during the best of my knowledge and belief, the ures described in this Owner's Report of XI. or makes any warranty, expressed or described in this Owner's Report. ble in any manner for any personal
11. M	pector's Signature	~	nmissions	Connected with this inspection.  7486 I IS. N  National Board, State, and Endorsements
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1.						~ i/
	Manufactured and certified by	Lonergan Valve Division	1, 8222 Bluffton Road, I	ort Wayne. U	N 46809 PLANING. 2	2-16
,	Manufactured to - IT-shifted	a Dublia Barrar C1C	(name and address of NV Cer		060 D4-13 1	
•	Manufactured for Washington	n Public Power Supply Sy	Iname and address of Purchase	ID 055, P.O. 9	968, Richland, WA 993	<u>152–09</u> 6
	tion of installation Wash:	ington Public Power Supp	ly System, WNP-2 OPS V	HS Complex. 1	Whse. #1. North Power	Plant
	$\smile$		(name and address)		Richland, WA 993	
	Valve ND50DS421-DG1400		Nom. inlet size1*	o	utlet size2"	
	(model no., series no.)	(in.)		(in.)	(in.)	
	ASME Code, Section III, Division	on 1:	<u>Winter 1974</u>	2	N/A	
			(addenda date)	(class)	(Code Case no.)	
	Type <u>Spring</u> (spring, pilot or power operated)		I/A 100° F	2100	at <u>33<sup>0</sup> min.</u>	°F
	139407-1-1 tt	nrough		(hydro. test, pa	ug, met)	
	identification <u>139407-1-2</u> (Cert. Holder's seri	ial no.) (CRN)	A940014 Rev. 0 (drawing no.)	N/A (Nat'l. 8d. no.	1994	
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		(Nat I. Su. No.	.) (year built)	
	Control ring settingsN/A	0: 01	-29BS/N 1392	1-7 1-2		
	Program and in the transport	SLC-RV	- 210, 3/N 12 12	40 /-1-2	0.00	
	Pressure retaining items:			1 Lu	124/01	
		Serial No. or	Ma+'I	. Spec.,	、ソント O Tensile	
		Identification		ype or Grade	Strength	
	Body	S6601-1 -2	SA=351_CF8M			
	Bonnet XXXXXX	т <u>4795–5.</u> –6	SA-351 CF8M		70_ksi	
•	DANKARANOON 3/8" Plug	18450 / 73028	SA-479 TY316			
	Nozzie	703685	SA-479 TY316		75 ksi	
	Disk	97477	SA-479 TY316		75 ksi	<del></del>
	Spring XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	31828	SA-479 TY316		75.ksi	
	Spring XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	31828 H8506-4, -12	SA-479 TY316 SA-351_CF8M		<u>75 ksi</u> 70 ksi	
	•				75 ksi 70 ksi 75 ksi	
	OODS (100 CAP Cap	H8506-4, -12	SA-351_CF8M		70 ksi	
	ONGTEK Gag Plug Screw	H8506-4, -12 30091	SA-351_CF8M SA-479_TY316		70 ksi 75 ksi	
	MANUSCONDOMINION Cap	H8506-4, -12 30091 20330	SA-351_CF8M SA-479_TY316 ASTM_A-313_TY316		70 ksi 75 ksi *	
	MANUSCONSCIONNA Cap  MANUSCON	H8506-4, -12 30091 20330 30091 704631	SA-351 CF8M SA-479 TY316 ASTM A-313 TY316 SA-479 TY316 SA-479 TY316		70 ksi 75 ksi * 75 ksi	
	MANUSCONDOMINION Cap	H8506-4, -12 30091 20330 30091 704631	SA-351 CF8M SA-479 TY316 ASTM A-313 TY316 SA-479 TY316 SA-479 TY316  Ø 10% overpressure	as certified by t	70 ksi 75 ksi * 75 ksi 75 ksi he National Board _01/25/	
	MANUSCONS Cap  Manusc	H8506-4, -12 30091 20330 30091 704631 27 GPM) (steam or fluid, lb/hr)	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  Ø 10% overpressure		70 ksi 75 ksi * 75 ksi 75 ksi 75 ksi he National Board 01/25/	<b>&gt;</b> }
	MANUSCONS Cap  Manusc	H8506-4, -12 30091 20330 30091 704631 27 GPM) (steam or fluid, lb/hr) from material requirem	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  Ø 10% overpressure		70 ksi 75 ksi * 75 ksi 75 ksi 75 ksi he National Board 01/25/	<b>&gt;</b> }
	MANUSCONSISTENCY Cap  MINISTEN Gag Plug Screw  Exing  M Ring Pin Screw  MANUSCON Stem  (Continued below)  Relieving capacity 63,500 (1)  Remarks: * Spring exempt  Pressure Retaining Items	H8506-4, -12 30091 20330 30091 704631  27 GPM) (steam or fluid, lb/hr) : from material requirem s: (Continued)	SA-351 CF8M SA-479 TY316 ASTM A-313 TY316 SA-479 TY316 SA-479 TY316  @ 10% overpressure ents of NC-2000 but mee		70 ksi 75 ksi  75 ksi 75 ksi 75 ksi he National Board _01/25/ (date)  quirements of NC-3595	<b>&gt;</b> }
	MANUSCONSISTENCY Cap  MANUSCONSISTENCY  MANUSCON	H8506-4, -12 30091 20330 30091 704631  27 CPM) (steam or fluid, lb/hr) : from material requirem s: (Continued) 700737	SA-351 CF8M  SA-479 TY316  ASIM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316		70 ksi 75 ksi  75 ksi 75 ksi 75 ksi he National Board _01/25/ (date  quirements of NC-3595	<b>&gt;</b> }
	MANUSCONSISTENCY  MANUSCONSISTENCY  MANUSCONSISTENCY  MANUSCONSISTENCY  (Continued below)  Relieving capacity 63,500 (1)  Remarks: * Spring exempt  Pressure Retaining Items  Compression Screw  Heavy Hex Nut	H8506-4, -12 30091 20330 30091 704631  27 CPM) (steam or fluid, lb/hr) from material requirems: (Continued) 700737 8079541/N4C	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316  SA-479 TY316  SA-479 TY316		70 ksi 75 ksi  75 ksi 75 ksi 75 ksi he National Board _01/25/ (date  quirements of NC-3595  75 ksi N/A	<b>&gt;</b> }
	MANUSCONSISTENCY Cap  MANUSCONSISTENCY  MANUSCON	H8506-4, -12 30091 20330 30091 704631  27 CPM) (steam or fluid, lb/hr) : from material requirem s: (Continued) 700737	SA-351 CF8M  SA-479 TY316  ASIM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316		70 ksi 75 ksi  75 ksi 75 ksi 75 ksi he National Board _01/25/ (date  quirements of NC-3595	<b>&gt;</b> }
	MANUSCONSISTENCY  MANUSCONSISTENCY  MANUSCONSISTENCY  MANUSCONSISTENCY  (Continued below)  Relieving capacity 63,500 (1)  Remarks: * Spring exempt  Pressure Retaining Items  Compression Screw  Heavy Hex Nut	H8506-4, -12 30091 20330 30091 704631  27 GPM) (steam or fluid, lb/hr) : from material requirem s: (Continued) 700737 8079541/N4C 8866612	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316  SA-479 TY316  SA-479 TY316		70 ksi 75 ksi  75 ksi 75 ksi 75 ksi he National Board _01/25/ (date  quirements of NC-3595  75 ksi N/A	<b>&gt;</b> }
	MANUSCONSISTENCY  MANUSCONSISTENCY  MANUSCONSISTENCY  MANUSCONSISTENCY  (Continued below)  Relieving capacity 63,500 (1)  Remarks: * Spring exempt  Pressure Retaining Items  Compression Screw  Heavy Hex Nut	H8506-4, -12 30091 20330 30091 704631  27 GPM) (steam or fluid, lb/hr) : from material requirem s: (Continued) 700737 8079541/N4C 8866612	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  Overpressure  (psi)  ents of NC-2000 but mee  SA-479 TY316  SA-194 GR 2H  SA-193 GR B7  CATION OF DESIGN	ts design red	70 ksi 75 ksi  * 75 ksi 75 ksi he National Board _01/25/ date  quirements of NC-3595  75 ksi N/A 125 ksi	<b>&gt;</b> }
	MANUSCONS CAP  MANUSC	H8506-4, -12 30091 20330 30091 704631  27 GPM) (steam or fluid, lb/hr) : from material requirem s: (Continued) 700737 8079541/N4C 8866612  CERTIFIC	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316  SA-194 GR 2H  SA-193 GR B7	ts design red	70 ksi 75 ksi * 75 ksi 75 ksi 75 ksi he National Board _01/25/ (date of NC-3595) 75 ksi N/A 125 ksi Reg. no	<b>&gt;</b> }
ig	MANUSCONS CAP  MANUSC	H8506-4, -12 30091 20330 30091 704631  27 GPM) (steam or fluid, lb/hr) : from material requirem s: (Continued) 700737 8079541/N4C 8866612  CERTIFIC	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316  SA-194 GR 2H  SA-193 GR B7  CATION OF DESIGN  P.E. State	ts design red	70 ksi 75 ksi  * 75 ksi 75 ksi 75 ksi he National Board _01/25/ Idate  quirements of NC-3595  75 ksi N/A 125 ksi  Reg. no12542	<b>&gt;</b> }
ig	MANUSCONS CAP  MANUSC	H8506-4, -12 30091 20330 30091 704631  27 CPM) (steam or fluid, lb/hr) : from material requirem s: (Continued) 700737 8079541/N4C 8866612  CERTIFIC D. Murphy N/A	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316  SA-194 GR 2H  SA-193 GR B7  CATION OF DESIGN  P.E. State	ts design red	70 ksi 75 ksi * 75 ksi 75 ksi 75 ksi he National Board _01/25/ (date of NC-3595) 75 ksi N/A 125 ksi Reg. no	<b>&gt;</b> }
ig	MANUSCONSISTENCY  MANUSCONSIST	H8506-4, -12 30091 20330 30091 704631  27 CPM) (steam or ffuid, lb/hr) : from material requirem :: (Continued) 700737 8079541/N4C 8866612  CERTIFIC D. Marphy N/A	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316  SA-194 GR 2H  SA-193 GR B7  CATION OF DESIGN  P.E. State  P.E. State	ts design red	70 ksi 75 ksi  * 75 ksi  75 ksi  75 ksi  Note National Board01/25/ Idate  quirements of NC-3595  75 ksi  N/A  125 ksi  Reg. no12542  Reg. no174	
ig	MANUSCONSISTENCY  MANUSCONSIST	H8506-4, -12 30091 20330 30091 704631  27 CPM) (steam or fluid, lb/hr) : from material requirem s: (Continued) 700737 8079541/N4C 8866612  CERTIFIC D. Murphy N/A	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316  SA-194 GR 2H  SA-193 GR B7  CATION OF DESIGN  P.E. State  P.E. State	ts design red	70 ksi 75 ksi  * 75 ksi  75 ksi  75 ksi  Note National Board01/25/ Idate  quirements of NC-3595  75 ksi  N/A  125 ksi  Reg. no12542  Reg. no174	
ig	MANUSCONS CAP  MANUSCONS CAP  MANUSCONS CAP  MANUSCONS CAP  MANUSCONS Stem  (Continued below)  Relieving capacity 63,500 (1  Remarks: * Spring exempt  Pressure Retaining Items  Compression Screw  Heavy Hex Nut  Stud  In Specification certified by  In Report certified by  Bettify that the statements made	H8506-4, -12 30091 20330 30091 704631  27 CPM) (steam or fluid, lb/hr) : from material requirem s: (Continued) 700737 8079541/N4C 8866612  CERTIFIC D. Murphy N/A  CERTIFICA	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316  SA-194 GR 2H  SA-193 GR B7  CATION OF DESIGN  P.E. State  P.E. State	ts design red	70 ksi 75 ksi  * 75 ksi  75 ksi  75 ksi  Note National Board01/25/ Idate  quirements of NC-3595  75 ksi  N/A  125 ksi  Reg. no12542  Reg. no174	
ig	MANUSCONS CAP  MANUSCONS CAP  MANUSCONS CAP  MANUSCONS CAP  MANUSCONS Stem  (Continued below)  Relieving capacity 63,500 (1  Remarks: * Spring exempt  Pressure Retaining Items  Compression Screw  Heavy Hex Nut  Stud  In Specification certified by  In Report certified by  Bettify that the statements made	H8506-4, -12 30091 20330 30091 704631  27 GPM) (steam or fluid, lb/hr) : from material requirem s: (Continued) 700737 8079541/N4C 8866612  CERTIFIC D. Marphy N/A  CERTIFICA	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316  SA-194 GR 2H  SA-193 GR B7  CATION OF DESIGN  P.E. State  P.E. State	WA N/A	70 ksi 75 ksi  * 75 ksi  75 ksi  75 ksi  Note National Board01/25/ Idate  quirements of NC-3595  75 ksi  N/A  125 ksi  Reg. no12542  Reg. no174	
	MANUSCONS CAP  MINISTER Gag Plug Screw  Exering  Manuscript Ring Pin Screw  MANUSCRIPT Screw  MANUSCRIPT Screw  MANUSCRIPT Screw  MANUSCRIPT Screw  Manuscript Gage Screw  Manuscript Screw  Man	H8506-4, -12 30091 20330 30091 704631  27 GPM) (steam or fluid, lb/hr) : from material requirem s: (Continued) 700737 8079541/N4C 8866612  CERTIFIC D. Marphy N/A  CERTIFICA	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316  SA-194 GR 2H  SA-193 GR B7  CATION OF DESIGN  P.E. State  P.E. State  ATE OF COMPLIANCE hat this valve conforms to the	WA N/A rules for constru	70 ksi 75 ksi  * 75 ksi  75 ksi  Note National Board 01/25/ Idate  The National Board 01/25/ Idate	
	MANUSCONS CAP  MANUSCONS CAP  MANUSCONS CAP  MANUSCONS Stem  (Continued below)  Relieving capacity 63,500 (1  Remarks: * Spring exempt  Pressure Retaining Items  Compression Screw  Heavy Hex Nut  Stud  In Specification certified by  In Report certified by  Pertify that the statements made vision 1.	H8506-4, -12 30091 20330 30091 704631  27 GPM) (steam or fluid, lb/hr) : from material requirem s: (Continued) 700737 8079541/N4C 8866612  CERTIFIC D. Murphy N/A  CERTIFICA e in this report are correct and t	SA-351 CF8M  SA-479 TY316  ASTM A-313 TY316  SA-479 TY316  SA-479 TY316  ents of NC-2000 but mee  SA-479 TY316  SA-194 GR 2H  SA-193 GR B7  CATION OF DESIGN  P.E. State  P.E. State  ATE OF COMPLIANCE hat this valve conforms to the	WA N/A	70 ksi 75 ksi  * 75 ksi  75 ksi  Note National Board 01/25/ Idate  The National Board 01/25/ Idate	

This form (E00042) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM INTO CENTIFICATE MOLDENS DATA REPORT FOR PRESSURE OR VACOUNT RELIEF VALVES" As Required by the Provisions of the ASME Code, Section III, Division 1

Pg. 1 of \_2\_

### Certificate Holder's Serial No.

CERTIFICATE OF I	NSPECTION
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 HSBI & I Co.	
of Hartford, CT	have inspected the valve described in this Data Report on
LUGUST 4, 1994, and state that to the best of my knowledge and bel	lief, 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 v	varranty, 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 8-4-94 Signed & Signed Grand Cruigo	Commissions N137444(N131A), Ind 840
(Authorized Inspector)	(Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

Date: 06/13/01

Sheet: 1 Of 1

**Unit:** Not Applicable

# **EMERGY**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)-2B RHR(4)-1B RHR-RV-25B RHR-RV-25B	WPPSS * WPPSS * Lonergan Lonergan	RHR(1)-2B-P1 RHR(4)1B-P1 128261-1-1 509258-76-1	N/A N/A N/A N/A	N/A N/A N/A N/A	1984 1983 1993 1979	Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing relief valve RHR-RV-25B. The replacement work was performed as follows:
  - 1) Removed existing relief valve RHR-RV-25B, Serial No 128261-1-1.
  - 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) Installed replacement relief valve RHR-RV-25B, Serial No 509258-76-1.
  - 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.
  - 7) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve outlet joint. No evidence of leakage during the pressure test.

- 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 RHR-RV-25B, Serial No 509258-76-1 inlet side is Residual Heat Removal (RHR) piping system RHR(1)-2B-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 the replacement relief valve RHR-RV-25B, Serial No 509258-76-1 outlet side is Residual Heat Removal (RHR) piping system RHR(4)-1B-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve RHR-RV-25B, Serial No 509258-76-1 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1974 Addenda requirements.

### · EMERGY · NORTHWEST

emarks: 1) See attached NV-1 Code Data Report for the re /T-2 visual examination to confirm pressure boundary integrity d joint was performed during 10CFR50, Appendix J Local Lea	
d joint was performed during 10CFH50, Appendix J Local Lea emponent design pressure of 125 Psig and design temperatur	eplacement relief valve RHR-RV-25B, Serial No 509258-76-1. ly of the replacement relief valve RHR-RV-25B, Serial No 509258-76-1 of ak Rate Test (LLRT). re of 480 <sup>0</sup> F is for the relief valve outlet piping.
CERTIFICAT	TE OF COMPLIANCE
We certify that the statements made in this Owi to the rules of the ASME Code, Section XI.	ner's Report are correct and this replacement conforms
Type Code Symbol Stamp: Not Applicable	
Certificate Of Authorization No.: Not Applicable	
Expiration Date: Not Applicable	
	LE) Signed By Kuldip Singh - Program Lead Engineer (PLE)
Date 6/3/01	Date 6   (3/0)
CERTIFICATE OF	F INSERVICE INSPECTION
Vessel Inspectors and the State of Washington a Johnston, Rhode Island have inspected the compperiod 4/12/0/ to 7/10/0/ Owner has performed examinations and taken in accordance with the requirements of the ASBy signing this certificate neither the inspector implied, concerning the examinations and correspondence in the inspector nor his emitter the inspector nor h	issued by the National Board of Boiler and Pressure and employed by Factory Mutual Insurance Company of conents described in this Owner's Report during the and state to the best of my knowledge and belief, the corrective measures described in this Owner's Report ME Code, Section XI.  In nor his employer makes any warranty, expressed or rective measures described in this Owner's Report. Ployer shall be liable in any manner for any personal darising from or connected with this inspection.
1.11 Ant	_ Commissions 7486 w/7486 nz +
Inspector's Signature	National Board, State, and Endorsements
Date 7/1////	
Date	-

PUICAPHEPMAILSAPATE BRILLE VALVES THE PROPERTY OF THE PROPERTY 15-18807 T of his required by the Provintion of the ISNE Code Rules AN NO. 2-1686 E. Lonergan Co., Red Lion Rd., W. of Varree, Philadelphia, Pa. 19115 DHD-RV-25B SIN 509258-76-1 509258 Contract Date 8/5/75 \_\_\_\_ National Fort No.\_\_ Bovec & Crail Const. Co. and General Energy Name and Address Kesources, Inc., Richland, Washington Washington Fublic Power, Hunford, Washing ... 99352 Hanford #2 Jobsita, 12 Miles North of Richland, Washington 99352 22.1 ٠. يع 5. Valve Identification RIR-RV-25C (2) Serial No. \_\_509258-76-1 Drawing Na. \_ A-2369 Rev. D · F. Orifice Size 0.110 Pipe Size Safety Relief Valve Sufrty; Salety Relief; Pilot; Pewer Actuated . 500 6. Set Pressure (PSIG) \_ 10 % Overpressure , Illumdown (PSIG)\_ DXIIN 6\_ Stamped Capacity. Outlet Walve 750 Hydrostatic Test (PSIG) Inlet \_ 7. The material, design, construction and workmanship comply with ASME Code, Section III, Winter Addenda 1974 Pressure Containing or Pressure Retaining Components Serial No. or Material Specilication s. Castings Identifiention Including Type or Grade D8350-19 ASI'E SA-216/UCB Body D\$350-22 ASKE SA-216/WCB Power SINGLE b. Bur Stock and Forgings

 Spinste
 91015
 ASME SA-479 Type 304

 Spinste
 91372
 ASHE SA-479 Type 410

C17792

01629

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Superior Carlo

Source

Disc

MAZ 07 195

ASHE SA-ECHTELY QUARMY LUNTROL

ASHE SA-479 Type 304

ASHE SA-479 Type 304

?

Date: 06/13/01

Sheet: 1 Of 1

Unit: Not Applicable

# **EMERGY**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(3)-2A RHR(4)-1B RHR-RV-5 RHR-RV-5	WPPSS * WPPSS * Anderson ** Lonergan	RHR(3)-2A-P1 RHR(4)1B-P1 97-16627 509258-86-1	N/A N/A N/A N/A	N/A N/A N/A N/A	1983 1983 1997 1979	Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing relief valve RHR-RV-5. The replacement work was performed as follows:
  - 1) Removed existing relief valve RHR-RV-5, Serial No 97-16627.
  - 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) Installed replacement relief valve RHR-RV-5, Serial No 509258-86-1.
  - 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.
  - 7) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve outlet joint. No evidence of leakage during the pressure test.

- 1) \* Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) \*\* Lonergan relief valves were being manufactured by Anderson Greenwood.
- 3) The existing ASME Code Stamped piping system applicable to the replacement relief valve RHR-RV-5, Serial No 509258-86-1 inlet side is Residual Heat Removal (RHR) piping system RHR(3)-2A-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 ASME Code Stamped piping system applicable to the replacement relief valve RHR-RV-5, Serial No 509258-86-1 outlet side is Residual Heat Removal (RHR) piping system RHR(4)-1B-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 5) The replacement relief valve RHR-RV-5, Serial No 509258-86-1 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1974 Addenda requirements.

# **EMERGY**NORTHWEST

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other Test Pressure: 38.71 Psig Test Temperature: 77.1° F Component Design Pressure: 125 Psig Temperature: 480° F	her *
9. Remarks: 1) See attached NV-1 Code Data Report for the replacement relief valve RHR-RV-5, Serial No 509258-86-2) * VT-2 visual examination to confirm pressure boundary integrity of the replacement relief valve RHR-RV-5, Serial No 50 bolted joint was performed during 10CFR50, Appendix J Local Leak Rate Test (LLRT). 3) Component design pressure of 125 Psig and design temperature of 480° F is for the relief valve outlet piping.	-1. 09258-86-1 outlet
CERTIFICATE OF COMPLIANCE	
We certify that the statements made in this Owner's Report are correct and this replacement 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	conforms
Prepared By Ruloup Lines Signed By Ruloup Line	pineer (PLE)
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Col Johnston, Rhode Island have inspected the components described in this Owner's Report duperiod 290 to 700 and state to the best of my knowledge and Owner has performed examinations and taken corrective measures described in this Owner in accordance with the requirements of the ASME Code, Section XI.  By signing this certificate neither the Inspector nor his employer makes any warranty, expimplied, concerning the examinations and corrective measures described in this Owner's Furthermore, neither the Inspector nor his employer shall be liable in any manner for any injury or property damage or a loss of any kind arising from or connected with this inspect	mpany of uring the belief, the er's Report ressed or Report. personal
Inspector's Signature  Commissions 74864/7486  National Board, State, and End	ルエ エS orsements

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73	1.	Manufactured by J.	E. Lonergan Co., Rad Lion	Rd., W. of Verree, Philadelphia, Ps. 19115
		model No. D-20D	Order No. 509258 Common Date Sovee & Crail Const. Co. an	Resources, Inc., Richland, Mash.
100	3.	Owner WASHI	INGTON PUBLIC POWER, NAMPOR	RD, WASHINGTON 99352
eden.	4.	Location of Plant	Hanford #2 Jobsice, 12 H	files North of Richland, Washington 99352
*	5.	Valve Identification-	RHR-RV-5 Serial No. 509  - # Jan Jan Serial No. 509  elief. Valve Orifice Size C.]  lief; Vilot; Power Actuated Sq. Inc.	2258-36-1 Drawing No. A2370, Rev. F  L10 Pipe Size N/A Inlet 1" Outlet 2" Inch Inch
2		•	220	450 <u>°</u> r
/	6.	Set Pressure (PSIG)		Pated Tampersture
S		Stamped Capacity	26.9 G.P.M. MERCER 9 10 % O	
, A		•	SIG) Inlet330	Curlet 425
<b>)</b>	<i>≥</i> 7.	The material, design	n, construction and workmanship comply	10/01/20
U.		Class	2 , Edition	SPEUT. UNITED THE GRANTING.
-		Pressure Comandag	c. Pressure Recaining Components	PARAGRAPH NO.
7		WBOBR 21	Surial No. or Identification	Material Specification Including Type or Grade
		Body	n8350-20	ASME SA-216/WCB
		Bounet Augustr	• უ8350-4	ASME SA-216/NC3
		.b. Har Stock and Fr	orgin <b>15</b>	·
		Suppôrt Rada	. <u>x/a</u>	<u> </u>
		::uarle	<u> </u>	• ASNE SA-479 Type 304
		Disc	01629	ASME SA-479 Type 304
		Spring Washers	C1779?	ASME 3A-479 Type 304
J		Adjusting Seren	91015	' ASME SA-479 Type 304
		Spindle	91372	ASEE SA-479 Type 410

<sup>&</sup>quot;Desplaymental absent in fam of lints, shotches or drawings may be good grow dris "1) size to \$17" a \$1", (2) information in lists 1-2 on this data report to included on each abset, and (3) such aines to number it must mission of shorts in regarded at tip of this form.

		FORM NY-1 (back serial No. Hent No. X3986	Including Type of Goods 215 ASTH A-229	-14437
	Spring Body Strids Bolting Body Kuts	Cert. of Conformance	ASME SA-193, GR. B7 ASME SA-194, CR. 211	
(4)]  }}  a] }	Other Parts such as Pilot Compo	D8224-4	ASME SA-216/WCB	
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	of Nepurt on 2: 12 1  Report on 2: 12 1  resected this equipment in accordance	2. Zand state that so the best dance with the applicable Subsection	or makes any warranty, expressed or impl	In this Data turer has con-
			e the Inspector nor his employer shall be in a sixing from or connected with this in	
	Elis De C	Ly die Comaissipus.	(Notional Beart, State, Fravius, and	liu.)

Date: 06/13/01

Sheet: 1 Of 1

Unit: Not Applicable



# 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 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
CIA(5)-1A	WPPSS *	CIA(5)-1A-P1	N/A	N/A	1983		Yes, Code Class 3
CIA-RV-5A	Lonergan	509258-101-1	N/A	N/A	1982	Replaced	Yes, Code Class 3
CIA-RV-5A	Crosby	N95308-00-0002	N/A	N/A	2000	Replacement	Yes, Code Class 3

- 7. Description Of Work Performed: Replaced existing relief valve CIA-RV-5A. The replacement work was performed as follows:
  - 1) Removed existing relief valve CIA-RV-5A, Serial No 509258-101-1.
  - 2) Installed replacement relief valve CIA-RV-5A, Serial No N95308-00-0002.
  - 3) Reinstalled existing studs and nuts for the relief valve joint.

- 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 CIA-RV-5A, Serial No N95308-00-0002 is Containment Instrument Air (CIA) piping system CIA(5)-1A-P1. This piping system is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The replacement relief valve CIA-RV-5A, Serial No N95308-00-0002 is certified to comply with ASME Section III, Code Class 3, 1986 Edition with 1986 Addenda requirements.

PLAN No 2-1689

### EMERGY NORTHWEST

	: Hydrostatic Pneum Test Pressure: Psig Component Design Pressi	Te	perating Pressure Other X No est Temperature: ° F emperature: ° F
R <i>emarks:</i> See atta	ched NV-1 Code Data Report for t	he replacement relief valve	CIA-RV-5A, Serial No N95308-00-0002.
	CERTIF	FICATE OF COMPLIA	ANCE
to the rules of tl	he statements made in thi: ne ASME Code, Section XI. bol Stamp: Not Applicable		correct and this replacement conforms
	sthorization No.: Not Applicab	ole	
Expiration Date:			
Prepared By	uldip Singh - Program Lead Engin	Signed By	Kuldip Singh - Program Lead Engineer (PLE)
Date	6/12/NI	Date	6/13/01
	CERTIFICAT	E OF INSERVICE IN	SPECTION
Vessel Inspecto Johnston, Rhode period //// Owner has perfo in accordance w By signing this implied, concert Furthermore, ne	rs and the State of Washing Island have inspected the Comment of t	gton and employed by components describe and state to the aken corrective meas e ASME Code, Section ector nor his employed corrective measures amployer shall be list	ational Board of Boiler and Pressure Factory Mutual Insurance Company of d in this Owner's Report during the best of my knowledge and belief, the ures described in this Owner's Report n XI. er makes any warranty, expressed or described in this Owner's Report. able in any manner for any personal connected with this inspection.
1.111.8	Total Simonton	Commissions	748647486 NI IS
insp	ector's Signature		National Board, State, and Endorsements
	m 1 .		
Date <u>(:///</u>	101		

Q.C.-44E

Sheet 1 of 2

# 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

=				I Combanda 12 Kondalah	S. Weantham M	6/12/01
1.	Manufactured and certified b	y And		enwood Crosby, 43 Kendrick and Address of NV Certificate		A 02093
	Crosby Factory Order No.	1	•		er Order No.	00304296
	Closby Factory Order 140.	1	117000507			
2.	Manufactured for			ENERGY NORTHWEST		
	<del></del>		1)	Name and Address of Purcha	ser)	
3.	Location of Installation			(Name and Address)		
A	Valve 8614811D	Orifice size	.398	·		1
4.	(Model No./Series No		(in.)	(in.		(in.)
5.	ASME Code, Section III, Di		1986	1986	3	
		•	dition)	(Addenda Date)		(Code Case No.)
6.	- 71	Y RELIEF		lve I.D./Tag No.	CIA-RV-5	A
	(Spring, Pilot of 200	or Power Operated) 10% OF SP	)	100	425	at 70 °F
	(Set Pressure, psig)	(Blowdown, psi)	(Rate	d Relieving Temperature)	(Hydro Test psig,	Inlet)
	(000 00000000, 1 0,	•				2000
7.	Ident. N95308-00-00			DS-C-95308 R		2000 1. No.) (Yr. Built)
	(Cert. Holder's ser	ial no.)	(CRN)	(Drawing N	o.) (Nati Bi	1. No.) (11. Dame)
8.	Control Ring Settings	CIA-	-RV-51	A SIN N95308	-00-0002	
						Tensile
´9.	Pressure Retaining Items:	Serial No.	or	Material S	pec.	Strength
		Identificati		Including Type	-	(psi)
	Body					
	Bonnet					
	Support Rods					
-	Nozzie					
_	Disc	N97813-NCJT		SA479 TYPE 316		75,000
		N96272-60-0358				
	Spring Washers	N96272-60-0357		SA193 GR.B6	`	110,000
	Adjusting Bolt	N96470-39-0043		SA193 GR.B6		110,000
	Spindle	N96271-51-0107		SA193 GR.B6		110,000
	Spring	NX5839-0004		A313 TYPE 316		N/A
	Bolting					
	Other Items					-
	BASE	N97809-31-0004		SA479 TYPE 316L		75,000
	LJSE	N97810-31-0004		SA182 GR.F316L		75,000
	FLANGE	N96542-34-0012		SA182 GR.F316L		75,000
1	CYLINDER	N97811-31-0003		SA351 GR.CF3M		70,000
	LISE	N97812-31-0002		SA182 GR.F316L		75,000
	FLANGE	N96422-56-01		SA182 GR.F316L		75,000

Form NV-1 (Back	Certificate	Holder's Serial	lder's Serial No. <u>N95308-0</u>			<u>0-0002</u>	Sheet 2 of	
10. Relieving cap	pacity 469 SCFI	M AIR @ 60	@ <u>10</u>	overpre	ssure as ce	rtified by the	National Board	<u>08/08/91</u>
	(steam or	fluid, lb/hr)						(date)
11. Remarks:			····					
						, <del>-</del>		
		· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·		
		<u>CERTI</u>	FICATI	E OF DE	<u>SIGN</u>			
Design Specific	ation certified by	JACK	COLE	P	E State	WA	Reg. No.	20653
Design Report of	ertified by			P	E State		Reg. No.	
	· · · · · · · · · · · · · · · · · · ·	CERTIFIC	'ATE O	F COMP	TIANCE	,		
					-			
	the statements made in the statements made in the statements and statements in the statement in the statemen		correct a	nd that this	valve con	forms to the	rules for constru	ction of the
NV Certificate of	of Authorization No.		N-18	78		Expires	Sep. 30,	2001
	•	Anderson	Greenwo	od Crosby			<u> </u>	2001
Date <u>24</u>	MAR OO Nam		entham, l ertificate		Signed	(A)	Son. Ja	
		(NV Ce	rinicate	Holder)		(Aut	thorized Represe	ntative)
		<u>CERTIFIC</u>	CATE O	F INSPE	<u>CCTION</u>	•		
I. the undersigne	ed, holding a valid co	mmission issued	by the N	ational Bo	ard of Boil	er and Pressu	ire Vessel Inspec	tors and
	vince of <u>Massach</u>							
	Rhode Island have	-			-			
has constructed	this valve in accordan				_		he N Certificate	Holder
	ertificate, neither the escribed in this Data							
	personal injury or pro							
1 1	1/	May	4					
Date 03/24/2	Signed Signed	BACI TUST		Commissio		MA-1412		
	(Auti	orized Inspector	<del>:</del> )	(Nat'l. B	d. (incl. E	ndorsements)	and state or pro	v. and no.)

Q.C.-44E

Date: 06/13/01

Sheet: 1 Of 1

Unit: Not Applicable



## 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 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
CIA(5)-1B	WPPSS*	CIA(5)-1B-P1	N/A	N/A	1983	***************************************	Yes, Code Class 3
CIA-RV-5B	Lonergan	509258-102-1	N/A	N/A	1982	Replaced	Yes, Code Class 3
CIA-RV-5B	Crosby	N95308-00-0004	N/A	N/A	2000	Replacement	Yes, Code Class 3

- 7. Description Of Work Performed: Replaced existing relief valve CIA-RV-5B. The replacement work was performed as follows:
  - 1) Removed existing relief valve CIA-RV-5B, Serial No 509258-102-1.
  - 2) Installed replacement relief valve CIA-RV-5B, Serial No N95308-00-0004.
  - 3) Reinstalled existing studs and nuts for the relief valve 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 the replacement relief valve CIA-RV-5B, Serial No N95308-00-0004 is Containment Instrument Air (CIA) piping system CIA(5)-1B-P1. This piping system is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The replacement relief valve CIA-RV-5B, Serial No N95308-00-0004 is certified to comply with ASME Section III, Code Class 3, 1986 Edition with 1986 Addenda requirements.



ests Conduc	ted: Hydrostatic Pn Test Pressure: Psig Component Design Pr		Te	erating Pressure st Temperature: <sup>o</sup> nperature: <sup>o</sup> F		×
Remarks: See	attached NV-1 Code Data Repor	rt for the replaceme	nt relief valve (	CIA-RV-5B, Serial No	N95308-00-0004	
	CE	RTIFICATE OF	COMPLIA	NCE		
to the rules of Type Code S Certificate O	nat the statements made in of the ASME Code, Section Symbol Stamp: Not Applicable Of Authorization No.: Not Applicable	n XI. •	Report are	correct and this	replacement <i>COI</i>	nform <b>s</b>
Prepared By	Kuldip Singh - Program Lead (	Engineer (PLE)	Signed By	Kuldip Singh - Prog	ram Lead Engine	er (PLE)
	CERTIFI	CATE OF INSE	ERVICE IN	SPECTION		
Vessel Insperion Rho period /// Owner has pin accordance By signing to implied, conforce	signed, holding a valid corectors and the State of Wa pde Island have inspected \(\frac{1}{\omega}\) to \(\frac{1}{\omega}\) for the second of the second o	shington and entitle component and s and taken correct of the ASME Co linspector nor h and corrective or his employer	nployed by is describe state to the ctive meas ode, Section is employed measures shall be lia	Factory Mutual Institute of in this Owner's best of my knowures described in XI.  The makes any wald described in this ble in any manner.	surance Compa Report durin ledge and be a this Owner's rranty, expres o Owner's Rej er for any per	any of g the lief, the Repor sed or cort. sonal
//////////////////////////////////////	Inspector's Signature	Con	nmissions <sub>.</sub>	745660/74, National Board, St	ISC NIZ	

#### 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 1. Manufactured and certified by Anderson Greenwood Crosby, 43 Kendrick St., Wrentham, MA 02093 (Name and Address of NV Certificate Holder) Crosby Factory Order No. NV9000307 Customer Order No. 00304296 2. Manufactured for **ENERGY NORTHWEST** (Name and Address of Purchaser) 3. Location of Installation **HANFORD UNIT 2** (Name and Address) 8614811D Orifice size .398 4. Valve Outlet size Nom. Inlet size 3/4 (Model No./Series No.) (in.) 5. ASME Code, Section III, Division 1: 1986 1986 (Edition) (Addenda Date) (Class) (Code Case No.) 6. Type \_\_\_\_ SAFETY RELIEF Vaive I.D./Tag No. CIA-RV-5B (Spring, Pilot or Power Operated) 10% OF SP 100 at 70 °F (Set Pressure, psig) (Blowdown, psi) (Rated Relieving Temperature) (Hydro Test psig, Inlet) 7. Ident. N95308-00-0004 DS-C-95308 REV.A (CRN) (Nat'l Bd. No.) (Yr. Built) (Cert. Holder's serial no.) (Drawing No.) 8. Control Ring Settings CIA-RV-5B SIN N95308-00-0004 . Pressure Retaining Items: Tensile Serial No. or Material Spec. Strength Identification Including Type or Grade (psi) Body Bonnet Support Rods Nozzie Disc N97813-NCJS SA479 TYPE 316 75,000 N96272-60-0352 Spring Washers N96272-60-0351 SA193 GR.B6 110,000 Adjusting Bolt N96470-39-0045 SA193 GR.B6 110,000 Spindle N96271-51-0109 SA193 GR.B6 110.000 Spring NX5839-0003 A313 TYPE 316 N/A Bolting Other Items BASE N97809-31-0002 **SA479 TYPE 316L** 75,000 **LJSE** N97810-31-0002 SA182 GR.F316L 75,000 **FLANGE** N96542-34-0015 SA182 GR.F316L 75,000 **CYLINDER** N97811-31-0004 SA351 GR.CF3M 70.000 LJSE N97812-31-0003 SA182 GR.F316L 75,000 N96422-56-0104 FLANGE 75,000 SA182 GR.F316L

rorm NV-1 (Back)	Certificate Hold	er's Serial No.	<u> N95308-00</u>	<u>-0004</u>		Sheet 2 of 2
10. Relieving capacity	469 SCFM AII	R @ 60	overpressure as cer	tified by the N	ational Board	<u>08/08/9</u>
	(steam or fluid	, lb/hr)				(date)
11. Remarks:						
					<del></del>	·
					r	
· · · · · · · · · · · · · · · · · · ·		CERTIFICATI	E OF DESIGN			
Design Specification ce	rtified by	JACK COLE	PE State	WA	Reg. No.	20653
Design Report certified	by		PE State		Reg. No.	
		EDTIFICATE O	E COMPLIANCE			
	<u>C.1</u>	ERIIFICATE O	<u>F COMPLIANCE</u>			
We certify that the state	ments made in this	report are correct a	and that this valve conf	forms to the rul	les for constru	ction of the
ASME Code, Section II	II, Division 1.		/			
NV Certificate of Author	orization No.	N-18		Expires	Sep. 30,	2001
Date 24 man	. 00 Name	Anderson Greenwood Wrentham, M	•	5	1	
Date	, ob Name	(NV Certificate I		(Autho	rized Represer	ntative)
				(. raile	THE CONTESC!	native/
-	<u>C</u>	ERTIFICATE O	OF INSPECTION			
<ul> <li>I, the undersigned, hold the State or Province of</li> </ul>	ing a valid commis	ssion issued by the N	Vational Board of Boile	er and Pressure	Vessel Inspec	tors and
of Johnston, Rhode I	sland have insp	ected the valve desc	ribed in this Data Repo	ort on	<del>-</del> -	
	, 20 <u>oo</u> a	and state that to the b	est of my knowledge	and belief, the	N Certificate	Holder
By signing this certificate the component described manner for any personal	i in this Data Repo	rt. Furthermore, ne	ither the Inspector nor	his employer	shall be liable	in any
Date 03/24/2000	Signed (Authorize	60. 1ALCO	Commissions (Nat'l. Bd. (incl. Fr	MA-14		

Q.C.-44E

Date: 05/31/00

**Unit:** Not Applicable

Sheet: 1 of 1

#### EMERGY 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 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
Spare Nozzles For MSRV's	Crosby	See Item No 7 Below For Serial No's Of Spare Nozzies	N/A	N/A	N/A	Repair	No, Code Class 1 Spare Nozzles

- 7. Description Of Work Performed: Modified new spare nozzles for Main Steam Relief Valves (MSRV's). The work was performed as follows:
  - 1) Modified (machined) the new spare nozzles in accordance with Crosby's Field Services Procedure No FS-5335, CVI No 932-00,2.
  - 2) Performed Fluorescent Liquid Penetrant (PT) examination on the final machined surfaces of the new spare nozzles. Fluorescent Liquid penetrant (PT) examination results acceptable.
  - 3) Lined out the old Part No N93184 on the modified new spare nozzles and vibroengrave the new Part No N97498.
  - 4) The following is a listing of new spare nozzles which were modified (machined):

Nozzle No	Nozzie New Serial No	Nozzle No	Nozzle New Serial No
1	N97498-52-0163	5	N97498-54-0169
	(Old Serial No N93184-52-0163)		(Old Serial No N93184-54-0169)
2	N97498-52-0164	6	N97498-55-0170
	(Old Serial No N93184-52-0164)		(Old Serial No N93184-55-0170)
3	N97498-52-0165	7	N97498-55-0171
	(Old Serial No N93184-52-0165)		(Old Serial No N93184-55-0171)
4	N97498-52-0166	8	N97498-55-0173
	(Old Serial No N93184-52-0166)		(Old Serial No N93184-55-0173)

#### NOTES -

- 1) The new spare modified (machined) nozzles are kept as replacement nozzles for future use. When need arises in the future, these new spare modified nozzles will be installed in the Main Steam Relief Valves (MSRV's) as replacement parts.
- 2) The old Part No N93184 was lined out on the modified new spare nozzles and new Part No N97498 was vibroengraved. Thus the modified new spare nozzles now have a new serial number Example: Serial No N93184-33-0055 was changed to Serial No N97498-33-0055.

#### EMERGY NORTHWEST

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

ests Conducte	d: Hydrostatic Pneur Test Pressure: Psig Component Design Press	<i>T</i>	Operating Pressure Other X No lest Temperature: ° F lemperature: ° F
Remarks: None			
	CERT	IFICATE OF COMPL	IANCE
rules of the AS Type Code Syl	SME Code, Section XI. mbol Stamp: Not Applicable Authorization No.: Not Applic	·	e correct and this repair conforms to the
Prepared By _	10,00	Signed By	Kuldip Singh - Program Lead Engineer (PLE)
Date	6/2/100	Date	6/2/00
	CERTIFICA	ATE OF INSERVICE I	NSPECTION
Vessel Inspec Johnston, Rhod period /-/-// Owner has per in accordance By signing this implied, conce Furthermore,	tors and the State of Washi e Island have inspected the	ington and employed be components described and state to the laken corrective meathe ASME Code, Section of corrective measured amployer shall be in the comployer shall be in the corrective measured and corrective measured	National Board of Boiler and Pressure by Factory Mutual Insurance Company of seed in this Owner's Report during the seed to fine with the second seed in this Owner's Report ion XI.  If yer makes any warranty, expressed or seed escribed in this Owner's Report. It is owner's Report. It is owner's Report. It is owner's Report. It is owner's Report.
<u> </u>	spector's Signature	Commission	National Board, State, and Endorsements
Date	///		

Date: 05/15/00

Unit: Not Applicable

Sheet: 1 of 1



## 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	29366	N/A	1976	Repair	Yes, Code Class 3

7. Description Of Work Performed: The channel cover plate was removed to perform repairs for DCW-HX-1B2. No repairs were required and the channel cover plate was reinstalled. The replacement of studs and nuts and VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints for DCW-HX-1B2 is documented in ASME Section XI plan No 2-1694.

## EMERGY NORTHWEST

	ed: Hydrostatic Pneumatic Nominal Operating Pressure Other No Test Pressure: Psig Test Temperature: ° F Component Design Pressure: Psig Temperature: ° F
<i>9. Remarks:</i> Press No 2-1694.	sure test to confirm pressure boundary integrity of the joints for DCW-HX-1B2 is documented in ASME Section XI pla
	CERTIFICATE OF COMPLIANCE
Type Code Sy Certificate Of	the statements made in this Owner's Report are correct and this repair conforms to the SME Code, Section XI.  Important Code, Section XII.  Important Cod
	CERTIFICATE OF INSERVICE INSPECTION
Johnston, Rhod period 4-2 Owner has perion in accordance By signing this implied, concertions.	gned, holding a valid commission issued by the National Board of Boiler and Pressure stors and the State of Washington and employed by Factory Mutual Insurance Company of the Island have inspected the components described in this Owner's Report during the and state to the best of my knowledge and belief, the reformed examinations and taken corrective measures described in this Owner's Report with the requirements of the ASME Code, Section XI. Is certificate neither the Inspector nor his employer makes any warranty, expressed or the examinations and corrective measures described in this Owner's Report. The inspector nor his employer shall be liable in any manner for any personal erry damage or a loss of any kind arising from or connected with this inspection.
1. 11. in Date 5-2.	Spector's Signature  Commissions 7486W/7486 NIIS  National Board, State, and Endorsements  2-00

Date: 05/15/00

Unit: Not Applicable

Sheet: 1 of 1



## 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	29366	N/A	1976	Replacement	Yes, Code Class 3

- 7. Description Of Work Performed: Replaced studs and nuts for the bolted joints for DCW-HX-1B2. The replacement work was performed as follows:
  - 1) Removed existing studs and nuts for channel cover plate bolted joint.
  - 2) Installed new studs and nuts for channel cover plate bolted joint.
  - 3) Removed existing studs and nuts for back channel cover plate bolted joint.
  - 4) Installed new studs and nuts for back channel cover plate boited joint.
  - 5) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

## EMERGY NORTHWEST

	ted: Hydrostatic Pneumatic Nominal Operating Pressure X Other No Test Pressure: 215 Psig Test Temperature: 58° F Component Design Pressure: 300 Psig Temperature: 300° F
Remarks: None	<b>э.</b>
	CERTIFICATE OF COMPLIANCE
We certify the	at the statements made in this Owner's Report are correct and this replacement conforms to
the rules of ti	he ASME Code, Section XI.
	ymbol Stamp: Not Applicable
	f Authorization No.: Not Applicable
Expiration Da	ate: Not Applicable
Prepared By	Verlaip Such Signed By Verlaip Such
	Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
Date	5/15/00 Date 5/15/00
	3/3/0
<del></del>	
	CERTIFICATE OF INSERVICE INSPECTION
I, the undersi	gned, holding a valid commission issued by the National Board of Boiler and Pressure
Johnston Rho	ctors and the State of Washington and employed by Factory Mutual Insurance Company of de Island have inspected the components described in this Owner's Report during the
period 4-2	7-00 to <u>f-22-00</u> and state to the best of my knowledge and belief, the
Owner has pe	erformed examinations and taken corrective measures described in this Owner's Report
in accordanc	e with the requirements of the ASME Code, Section XI.
By signing th	is certificate neither the inspector nor his employer makes any warranty, expressed or
implied, cond	erning 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 prop	perty damage or a loss of any kind arising from or connected with this inspection.
"	
	Commissions 7486 NISI
/r///	
<i>//-     </i>	nspector's Signature National Board, State, and Endorsements
Date <u>5-</u> 2	nspector's Signature National Board, State, and Endorsements

Date: 06/27/01

Sheet: 1 Of 1

Unit: Not Applicable



## 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: 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
RCIC(1)-4CL2 RCIC-V-12 RCIC-V-90	WPPSS * Velan Enertech	RCIC(1)-4CL2-P1 101 11046	N/A N/A N/A	N/A N/A N/A	1984 1976 2000	Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

- 7. Description Of Work Performed: Replaced existing gate valve RCIC-V-12, Serial No 101 with nozzle check valve RCIC-V-90, Serial No 11046. The replacement work was performed as follows:
  - 1) Removed existing butt welded gate valve RCIC-V-12, Serial No 101.
  - 2) Installed two (2) new mating slip on flanges in the piping system.
  - 3) Made required mating slip on flanges to pipe welds.
  - 4) Performed visual examination on the final welds. Visual examination results acceptable.
  - 5) Performed magnetic particle (MT) examination on the final welds. Magnetic particle (MT) examination results acceptable.
  - 6) Performed magnetic particle (MT) examination on the final welds for ISI (PSI). Magnetic particle (MT) examination results acceptable.
  - 7) Installed replacement valve RCIC-V-90, Serial No 11046.
  - 8) Installed studs and nuts for valve RCIC-V-90 bolted flanged joints.
  - 9) 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 replacement valve RCIC-V-90, Serial No 11046 was installed is Reactor Core Isolation Cooling (RCIC) piping system RCIC(1)-4CL2-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-90, Serial No 11046 is certified to comply with ASME Section III, Code Class 2, 1995 Edition with 1996 Addenda requirements.
- 4) The magnetic particle (MT) 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.
- 5) 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.

# **EMERGY**NORTHWEST

	ests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None Test Pressure: 980 Psig Test Temperature: 82° F Component Design Pressure: 1500 Psig Temperature: 170° F  Remarks: See attached NPV-1 Code Data Report for the replacement valve RCIC-V-90, Serial No 11046.
Γ	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 Signed By Signed By 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 Boller 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
	Injury or property damage or a loss of any kind arising from or connected with this inspection.    Main   M

## PLAN NO. 2-1695 FORM NPV-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES\* As Required by the Provision of the Association of the Provision of the Association of the Ass As Required by the Provisions of the ASME Code, Section III, Division 1

Pg. 1 of \_2\_

1.	Manufactured and cer	tified by Enerte	ch, A Div. of	Curtiss-W	right Flo	w C	ontrol	Corp.; 2950	Birch St	; Brea, CA 928	21
				(nam	ne and add	iress	of N C	ertificate Holde	r)	•	
2.	Manufactured for	Er	ergy North						9352-096	58	
				•	and addre			•		14/4 00050	
3.	Location of installatio	n Columb	ia Generati	ng Station					Richland	, WA 99352	
		_			(name				•	None	
4.	Model No., Series No.	., or Type	DRV-Z	Drawing _	MD2	UDDI	<u>u</u>	Rev	<u>A</u>	CRN_None	
			4005		400			•		None	
5.	ASME Code, Section	III, Division 1:	1995		199			2		None	
			(edition)		(addenda	date	<b>:)</b>	(class)	6	(Code Case no.)	)
6.	Pump or valve Nozzi	e Check Valve	Nominal inlet	size	6		Ou	ıtlet size	(in.)	· .	
	•	04.405		NI/A	(in.)		CA.	479 T316		N/A	
7.	Material: Body	SA-105	Bonnet	N/A	D	sk _	SA-	4/9 1310	Bolting .	17/7	
	(a)	( <b>b</b> )		(c)	-			(d)		(e)	
	Cert.	Nat'i		Body				Bonnet		Disk	
	Holder's	Board		Serial	l			Serial		Serial	
	Serial No.	No.		No.				No.		No.	
	11046	None		KBW-0	01			None		KCE-001	
										_ <del></del>	
				<u> </u>							
				61.4		<b>*</b>		- <del></del>	<del></del>		
		KCIC-	· V-90	SIN	110	46	<u> </u>			<u>.</u>	
				<u> </u>							
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This form (E00037) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300. (12/88)

REPRINT 6/93

<sup>\*</sup> Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is  $8\% \times 11$ , (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.

## FORM NPV-1 (Back - Pg. 2 of 2)

				Certificate Holder's Serial No	11046
8.	. Design conditions	1500 (pressure)	psi(temperature)	°F or valve pressure class	900 (1
9.	Cold working pressure	2220	psi at 100°F		
10.	Hydrostatic test	3350 psi.	Disk differential test pres	sure200	psi
11,	Remarks: Qty. 1, Ene	ertech Job Num	nber 23947V		
				• ••	
		<del></del>	CERTIFICATION OF D	ESIGN	
D	ssign Specification certifi	ied hy Ab	bas A. Mostala	P.E. State WA Reg. no.	0028777
l l	sign Report certified by		A:	P.E. State WA Reg. no. CA Reg. no.	23241
		· · · · · · · · · · · · · · · · · · ·			
			CERTIFICATE OF COM	PLIANCE	
w	e certify that the stateme	ents made in this r	BDOM are correct and that	his pump or valve conforms to the rules	
OT	the ASME Code, Section	n III, Division 1.		nis pump or vaive conforms to the rules	for construction
N	Certificate of Authorizati		N-2826	Expires10/2	26/02
Dε	12/29/05 Nar	ne	Enertech	_ Signed Ray Low	11
<u> </u>		(N (	Certificate Holder)	Jouthorized Tepresent	ative)
			CERTIFICATE OF INSPI	ECTION	
l, the	the undersigned, holding  State or Province of	, g a valid commiss Cali	sion issued by the Nation	at Board of Boiler and Pressure Vessel d employed by Hartford Steam Boiler In	Inspectors and
	Co	nnecticut	hava isassa	and the manner of the state of	
-	12.29-26	and sta	ite that to the best of my	knowledge and belief, the Certificate	Holder has con-
str	ructed this pump, or valv	e, in accordance v	with the ASME Code, Sect	ion III, Division 1.	
Ву	signing this certificate,	neither the inspec	ctor nor his employer mak	es any warranty, expressed or implied,	concerning the
CO	mponent described in thi	is Data Report. Fu	rthermore, neither the insp	ector nor his employer shall be liable in	any manner for
		///	oss of any kind arising from	n or connected with this inspection.	
Da	te 12/29/00 Signed.		Commissions	CA 1494	
		(Authorized Ins	spector)	(Nat'i. Bd. (incl. endorsements) and state	or prov. and no.}

(1) For manually operated valves only.

Date: 06/26/01

Sheet: 1 Of 1

Unit: Not Applicable

## **EMERGY**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(1)-4CL2 RCIC-V-758 RCIC-RV-3	WPPSS * WPPSS * Borg Warner Anderson Greenwood	RCIC(2)-1-P1 RCIC(1)-4CL2-P1 79962 N98651-00-0001	N/A N/A N/A N/A	N/A N/A N/A N/A	1983 1984 1983 2001	Replacement Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 1 Yes, Code Class 2

- 7. Description Of Work Performed: Installed new relief valve RCIC-RV-3 and piping material associated with the relief valve. The replacement work was performed as follows:
  - 1) Installed new piping material such as elbows, reducing inserts, tees, flanges and pipe.
  - 2) Installed new valve RCIC-V-758, Serial No 79962.
  - 3) Made required socket welds.
  - 4) Performed visual examination on the final socket welds. Visual examination results acceptable.
  - 5) Performed liquid penetrant (PT) examination on the final socket welds. Liquid penetrant (PT) examination results acceptable.
  - 6) Installed new relief valve RCIC-RV-3, Serial No N98651-00-0001.
  - 7) Installed new studs and nuts associated with relief valve RCIC-RV-3 bolted flanged joints.
  - 8) Installed material such as U bolts, jam nuts and plate for new supports.

#### 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 new relief valve RCIC-RV-3, Serial No N98651-00-0001 outlet side
- 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 existing ASME Code Stamped piping system applicable to the new relief valve RCIC-RV-3, Serial No N98651-00-0001 inlet side
- is Reactor Core Isolation Cooling (RCIC) piping system RCIC(2)-4CL2-P1. This piping system is certified to comply with ASME Section
- III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The new relief valve RCIC-RV-3, Serial No N98651-00-0001 is certified to comply with ASME Section III, Code Class 2, 1995Edition with 1996 Addenda requirements.
- 5) The new valve RCIC-V-758, Serial No 79962 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.

# **EMERGY**NORTHWEST

CERTIFICATE OF COMPLIANCE  We certify that the statements made in this Owner's Report are correct and this replacement cot 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  Certificate Of Judip Singh - Rogram Lead Engineer (PLE)  Date  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Privessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Computer State of Washington and employed by Factory Mutual Insurance Computer State of Washington and employed by Tactory Mutual Insurance Computer State of Washington and taken corrective measures described in this Owner's Report during and state to the best of my knowledge and be Owner has performed examinations and taken corrective measures described in this Owner's In accordance with the requirements of the ASME Code, Section XI.  By signing this certificate neither the Inspector nor his employer makes any warranty, expressingled, concerning the examinations and corrective measures described in this Owner's Report of the North State of the SME Code, Section XI.  By signing this certificate neither the Inspector nor his employer makes any warranty, expressingled, concerning the examinations and corrective measures described in this Owner's Report of the SME Code, Section XI.	r 🗓 Nor
We certify that the statements made in this Owner's Report are correct and this replacement conto 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 - Program Lead Engineer (PLE)  Signed By Kuldip Singh - Program Lead Engineer (PLE)  Date Date CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Program Lead Engineer (PLE)  Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Comp Johnston, Phode Island have Inspected the components described in this Owner's Report during period for the period and state to the best of my knowledge and be Owner has performed examinations and taken corrective measures described in this Owner' in accordance with the requirements of the ASME Code, Section of the System Inspector in this certificate neither the inspector nor his employer makes any warranty, expressing the examinations and corrective measures described in this Owner's Residual concerning the examinations and corrective measures described in this Owner's Residual concerning the examinations and corrective measures described in this Owner's Residual concerning the examinations and corrective measures described in this Owner's Residual concerning the examinations and corrective measures described in this Owner's Residual concerning the examinations and corrective measures described in this Owner's Residual concerning the examinations and corrective measures described in this Owner's Residual concerning the examinations and corrective measures described in this Owner's Residual concerning the examinations and corrective measures described in this Owner's Residual concerning the examinations and corrective measures described in this Owner's Residual concerning the examinations and corrective measures described in this Owner's Residual concerning the examinations and corrective measu	hed NPV-1 Co
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	
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Privessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Computation, Rhode Island have Inspected the components described in this Owner's Report during period	
Furthermore, neither the inspector nor his employer shall be liable in any manner for any per injury or property damage or a loss of any kind arising from or connected with this inspection.  Commissions 746677486 w. National Board, State, and Endors	pany of ing the relief, the r's Report essed or report. ersonal on.

## PLAN NO. 2-1696

# RCIC- RV-3, SIN N98651-00-0001 Buldup Suph

Q.C.-44E Sheet 1 of 2

## FORM NV-1, CERTIFICATE HOLDERS' DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES

A	s required by the	Provisions of	the ASME Code, Sect	ion III, D	ivision 1	
1. Manufactured and certified	lhu A	nderson Gre	enwood Crosby, 43 Ke	ndrick St.	. Wrentham. MA	02093
1. Wandiactured and certified		(Name a	and Address of NV Cer	tificate He	older)	
Crosby Factory Order No.					order No.	00307693
2. Manufactured for			ENERGY NORTH	WEST		:
2. Manufactured for		(	Name and Address of I		)	
3. Location of Installation		C	OLUMBIA GENERAT	ING STA	TION	
_			(Name and Add	· ·	0.4	
4. Valve JRAK-BS			Nom. Inlet size	(in.)	Outlet size _	(in.)
(Model No./Series if 5. ASME Code, Section III, if	NO.) Division 1:	(in.) 1995	1996	(111.)	2	(III.)
J. ASME Code, Section III,	Division 1.	(Edition)				(Code Case No
6. Type SAF		•	alve I.D./Tag No			
(Spring, Pilo	t or Power Operate	ed)	<b>→</b>		2250	70 °F
1500	10% OF S	P (Daw)	140	<u> </u>	2250	at 70 °F
(Set Pressure, psig)	(Blowdown, ps	i) (Rate	ed Relieving Temperatu	ne) (n	yuro rest psig, r	incij
7. Ident. N98651-00-0	1000		DS-C-986	551 REV.	Α	2001
(Cert. Holder's s		(CRN)	(Draw	ing No.)	(Nat'l Bd.	No.) (Yr. Built)
<u>,</u> /						
8. Control Ring Settings						
9. Pressure Retaining Items:						Tensile
7. I lessure Remning Rems.	Serial N	o. or	Mater	rial Spec.		Strength
	Identific	ation	Including '	Type or G	rade	(psi)
Body	N98428-31-000	1	ASME SA351 GR.C	F8M		70,000
Bonnet	N98431-31-000	1	ASME SA351 GR.C	F8M		70,000
Support Rods		···········			·	
Nozzie	N98399-31-000	1	ASME SA479 TYPE	316		75,000
Disc	N98476-31-000	1	ASME SA479 TYPE	316		75,000
	N88613-02-326	7				
Spring Washers	N88613-04-331	4	ASME SA193 GR.Bo	5		110,000
Adjusting Bolt	N97280-31-000	1	ASME SA193 GR.Bo	5		110,000
Spindle	N90303-85-039	0	ASME SA193 GR.B	5		110,000
Spring	NX2617-0181		ASTM A313 TYPE 3	316		N/A
Bolting						
Other Items						
BONNET STUD	N95945		ASME SA193 GR.B7	<u> </u>		N/A
BONNET NUT	N95883		ASME SA194 GR.2F	1		N/A
INLET STUD	N96237		ASME SA193 GR.B7	<u> </u>		N/A
-	-	_				

Form NV-1 (Back)	Certificate Ho	lder's Seria	al No.		<u>N98651-0</u>	<u>0-0001</u>	<del></del>	Sheet 2 of 2
10. Relieving capacity	11 GPM W7		@	<u>10</u>	overpressure as c	ertified by the	National Board	<u>02/10/81</u>
	(steam or flui	id, lb/hr)						(date)
11. Remarks:					2000		_ <del></del>	
	<u> </u>						<del></del>	
•								
		<u>CERT</u>	<u>IFIC</u>	ATE	OF DESIGN			
Design Specification cert	rified by	JACK	R. CC	DLE	PE State	WA	Reg. No.	20653
Design Report certified b	ру				PE State		Reg. No.	
	<u>C</u>	ERTIFI	CATI	E OF	<u>COMPLIANCE</u>	Z		
We certify that the statem ASME Code, Section III,	Division 1.							
NV Certificate of Author	12ation 140.	Anderson				Expires	Sep. 30, 2	1001
Date 18-MAY-0	/Name				•	D. E.	Tutos	
	·	(NV C	ertific	ate Hol	der)	(Auth	orized Represent	ative)
		777707777			**************************************			
	<u>C</u>	EKIIFI	CATI	E OF	<u>INSPECTION</u>			
I, the undersigned, holding the State or Province of of Johnston, Rhode Islam /8 has constructed this valve	Massachusetts and have insp	and en	nploye	ed by _ lescribe	Factory Mutual ed in this Data Rep	Insurance Co. ort on	-	
By signing this certificate, the component described in manner for any personal in	n this Data Repo	rt. Furthe	rmore,	, neithe	r the Inspector nor	his employer	shall be liable in	any
	/		<i>(</i>		,			
Date <u>5-/8-01</u> Sig	ned Leu D	8a.14	lo	Con	nmissions	MA-)	418 N'	

Q.C.-44E

PLAN No. 2-1696
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

79570  79570  RCIC-V-758, S  RCIC-V-758, S  RCIC-V-758, S  RCIC-V-758, S  RESIDENT STATES AND STATE	nlet Size 3/4 Or (inch)  (d) Drawing No. (e) Class  76590-2 1  A 79962  d media which include ted with a PWR and By	outlet Size 3/4 (inch)  (f) Nat'l. (g) Year Bd. No. Built  N/A 1983  Les steam, water WR. The
Series No. or Type No. No. No.  1) 1500# 79951 thru N/A  79970  31	No. (e) Class  76590-2  1  10  11  11  11  11  11  12  13  14  15  15  16  16  17  17  16  17  17  18  18  18  18  18  18  18  18	(f) Nat'l. (g) Year Bd. No. Built  N/A 1983  Les steam, water WR. The
or Type  No.  No.  1500# 79951 thru N/A  79570  131  140  151  152  153  165  166  177  188  199  100  The valves are designed to handle a fluit condensate, borated water, etc., associated water, etc., associated water atting of the median temperature pressure rating of the median temperature rat	No. (e) Class  76590-2  1  10  11  11  11  11  11  12  13  14  15  15  16  16  17  17  16  17  17  18  18  18  18  18  18  18  18	Bd. No. Built  N/A 1983  es steam, water  WR. The  N/A (1)
(1) 1500# 79951 thru N/A  (2) 79970  (3)  (4)  (5) RCIC-V-758 S  (6)  (7)  (8)  (9)  (10)  The valves are designed to handle a flux condensate, borated water, etc., associatemperature pressure rating of the median temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure pressure pressure pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for white temperature pressure rating of the median service for the median service fo	76590-2 1  N79962  d media which include the with a PWR and By the squipment was designed is stated below.  — *F or Valve Pressure Class  Manufacturer	N/A 1983  Les steam, water WR. The  N/A  (1)
(2) 79570 (3) (4) (5) RCIC-V-758, S (6) (7) (8) (9) (10)  The valves are designed to handle a flux condensate, horated water, etc., associated by the management of the manage	d media which include the with a PWR and By the squipment was designed is stated below.  — "F or Valve Pressure Class  Manufacturer	es steam, water WR. The
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(4) (5)  (6) (7) (8) (9) (10)  The valves are designed to handle a flux condensate, borated water, etc., associa (Brief description of service for whitemperature pressure rating of the media  Design Conditions  3600  (Pressure)  (Temperature)  Cold Working Pressure  Mark No.  Material Spec. No.  (a) Castings  isc-Code 1X20'  Stellite #6	d media which included the with a PWR and By the equipment was designed is stated below.  — "F or Valve Pressure Class  Manufacturer	N/A (1)
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(8) (9) (10)  The valves are designed to handle a flut condensate, borated water, etc., associatemperature pressure rating of the mediant temperature pressure rating of the mediant conditions  Obesign Conditions  (Pressure)  (Pressure)  (Temperature)  (Temperature)  About psi at 100°F.  Pressure Retaining Pieces  Mark No.  Material Spec. No.  (a) Castings  Disc-Code 1X20°  Stellite #6	ted with a PWR and By the equipment was designed) is stated below.  - *F or Valve Pressure Class  Manufacturer	N/A (1)
(9)  (10)  The valves are designed to handle a fluit condensate, horated water, etc., associated temperature pressure rating of the mediant temperature pressure rating of the mediant formation and the	ted with a PWR and By the equipment was designed) is stated below.  - *F or Valve Pressure Class  Manufacturer	N/A (1)
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Condensate borated water etc., associated e	ted with a PWR and By the equipment was designed) is stated below.  - *F or Valve Pressure Class  Manufacturer	N/A (1)
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Disc-Code 1X20' Stellite #5	Rex Precision	
Disc-Code 1X20' Stellite #5	Rex Precision	
	New 11 collection	<del> </del>
•		
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(b) Forgings		
ody-Code 1V46 . SA 105 ·	Kawaguchi	·
•		
	· · · · · · · · · · · · · · · · · · ·	

<sup>(1)</sup> For manually operated valves only.

<sup>\*</sup> 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. BECHTEL

Mark No.	Material Spec. No.	Manufacturer	Remarks
Balting N/A			
			<u> </u>
(d) Other Parts			
	A 564 Ty 630	Jorgensen Steel	
4H70,5E84 ·		GOIGEROCH DEEEL	
			<u> </u>
pei.	Disk Differential test pressure 3	60 <b>0</b>	
ASME Certificate of Authorizat	tion No. <u>H-1254</u> to t	use the K symbol (91)	1 expires 10/27/84 (Dess)
	CERTIFICATION C	F DESIGN	
gn information on file at NVD	of Borg Warner, 7500	Tyrone Ave., Van Nuy:	., Ca. 91409
ss analysis report (Class 1 only	y) on file at NVD of Borg	Warner, 7500 Tyrone A	ve.,Von Nuys,CA
• • • • • • • • • • • • • • • • • • •	David J. Murphy		
gn specifications certified by { tate Washington Rec	100010		
es analysis certified by (1)	Byron H. Leonard	•	
tate <u>CA</u> Reg	NoE123	FOR	
Ignature not required. List nar	ne only.	. 011	
· · · · · · · · · · · · · · · · · · ·	CERTIFICATE OF SHO	P INSPECTION	
undersigned, holding a vali	d commission issued by the f	National Board of Boiler and Pro	seeure Vessel Inspectors
he State or Province of	California	and employed by Limbermen	s Mutual Casualty
Long Grove, Illin	DIS have inspected th	e pump, or valve, described i	in this Data Report on
	3, and state that to the best o	if my knowledge and belief, the N $\circ$	Certificate Holder has con-
ted this pump, or valve, in acc	cordance with the ASME Code,	Section III.	
igning this certificate, neither	AND 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		
		r makes any warranty, expressed	
	ata Report. Furthermore, neith	er the Inspector nor his employ	er shall be liable in any
nner for any personal injury or	ata Report. Furthermore, neith	• • • •	er shall be liable in any

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

Date: 06/16/01

Sheet: 1 Of 1

Unit: Not Applicable



## 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: Process Instrumentation (PI) System

- 5. (a) Applicable Construction Code: ASME Section III, Code Class 2, 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)-ST-RCIC- PS-34	JCI	PI(1)-ST-RCIC-PS-34	N/A	N/A	1982		Yes, Code Class 2
Valve	Dragon	PB1195	N/A	N/A	1993	Replacement	Yes, Code Class 2
Valve	Dragon	PB1198	N/A	N/A	1993	Replacement	Yes, Code Class 2
Valve	Dragon	PB1200	N/A	N/A	1993	Replacement	Yes, Code Class 2
Vaive	Dragon	PB1201	N/A	N/A	1993	Replacement	Yes, Code Class 2
Valve	Dragon	PB1203	N/A	N/A	1993	Replacement	Yes, Code Class 2
Valve	Dragon	PB1204.	N/A	N/A	1993	Replacement	Yes, Code Class 2
Valve	Dragon	GP1378	N/A	N/A	1981	Replacement	Yes, Code Class 2

- 7. Description Of Work Performed: Install tubing material for instruments RCIC-PIS-1, RCIC-PIS-34 and RCIC-PI-16. The work was performed as follows:
  - 1) Removed existing tubing material.
  - 2) Installed new tubing material such as elbows, tees, connectors, adapters, unions and tubing.
  - 3) Installed new valves with Serial No's PB1195, PB1198, PB1200, PB1201, PB1203 and PB1204.
  - 4) Reinstalled existing valve with Serial No GP1378.
  - 5) Made required socket welds.
  - 6) Performed visual examination on the final socket welds. Visual examination results acceptable.
  - 7) Performed liquid penetrant (PT) examination on the final socket welds. Liquid penetrant (PT) examination results acceptable.
  - 8) Installed new material for the supports such as plate, block clamps, nuts and cap screws.

#### NOTES -

- 1) The existing ASME Code Stamped instrument tubing system is Process Instrumentation (PI) system PI(1)-ST-RCIC-PS-34. This system is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1975 Addenda requirements.
- 2) The reinstalled existing valve with Serial No GP1378 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1975 Addenda requirements.
- 3) The new valves with Serial No's PB1195, PB1198, PB1200, PB1201, PB1203 and PB1204 are certified to comply with ASME Section
- III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.

### EMERGY NORTHWEST

Parankas Canada and AIDV 1	=	g <i>Té</i>	est Temperature: ° F emperature: ° F
EPN No Serial No PB1195 PB1203 PB1198 PB1204 PB1200 GP1378 PB1201	Code Data Reports for the foli	lowing valves:	
	CERTIFICATE	OF COMPLIA	ANCE
		er's Report are	correct and this replacement conforms
o the rules of the ASME (			
Type Code Symbol Stamp Certificate Of Authorizatio			
<i>Expiration Date:</i> Not Applicat			
.A	0. 0 1		1 9. 00
Prepared By Und	Up Swel	Signed By	fuldib sub
Kuldip Singh -	Program Lead Engineer (PLE	<u> </u>	Kuldip Singh - Program Lead Engineer (PLE)
Date 6   16   0	l	Date	6/16/01
	CERTIFICATE OF I	NSERVICE IN	SPECTION
, the undersigned, holding Vessel Inspectors and the			ational Board of Boiler and Pressure
			have inspected the components
			toand
corrective measures desc ASME Code, Section XI.	ribed in this Owner's R	leport in accor	rformed examinations and taken dance with the requirements of the
mplied, concerning the ex Furthermore, neither the li	xaminations and correct inspector nor his emplo	ctive measures Byer shall be lia	er makes any warranty, expressed or described in this Owner's Report. able in any manner for any personal connected with this inspection.
• • • • •			
<u>Not Required - Replacement 1" N</u> Inspector's Signat		Commissions	National Board, State, and Endorsements

FORM NPV-1	N CERTIFICATE HOLDERS	' DATA REPORT FO	r nuclear pump:	S OR VALVES'	
	As Required by the Provision	ons of the ASME Cod	e, Section III, Div. 1	PLAN NO.	2-1697

		WNP 2 Site Ri	Purchaser or Owner	Sys. P.O. Box 1 99352		and, ws.	
	17	(Name and Address)	•				
Pump	or Valve	47.46	Nominal		Chi chi	tlet Size	1/2 (inch)
(	(a) Model No., (b)	N Certificate Holder	r's (c) Canadian	•			
	Series No.	Serial	Registration	(d) Drawing		(f) Nat'L	(g) Yea
	or Type	<b>No.</b>	No.	No.	(e) Class	Bd. No.	Built
(1)	7N058SWD	PB1194	N/A	10580	2	N/A	1993
(2)		thru		Rev. C			
(3)		PB1204					
(4)							
(5)		SERIAL	· NO.	SERIAL			
(6)		PB-11	95	PB-120			
(7)		PB-i		PB-12			
(8)	·	<u> </u>	ZDO	<u>PB-12</u>	.04		
<b>(9)</b> .			·	·			
(10) .			-	10A 00	+		
	Instrument	- Valve	ari	lary sur	י	/ 11 5	
				611516		( 11 Pcs	• )
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Cold W	orking Pressure .	3600 psi a (Pressure) 3600 psi a	100 (Temperature)		essure Class	1500 Remar	
Cold W	Porking Pressure re Retaining Piece	3600 psi a (Pressure) 3600 psi a	100 (Temperature) at 100°F.	"F or Valve Pro	essure Class		
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(a) Casi	Porking Pressure  The Retaining Pieces  Mark No.  Things N/A	3600 psi a 3600 psi a s Material	100 (Temperature) ii 100°F.  Spec. No.	Manufacto  Manufacto  Ajax Forge C	essure Class	Remai	ks
(a) Casi	Vorking Pressure  Mark No.  Lings N/A  pings	ASME SA182 G	100 (Temperature) ii 100°F.  Spec. No.	Manufacto	essure Class	Remai	ks
(a) Casi	Vorking Pressure  Mark No.  Lings N/A  pings	ASME SA182 G	100 (Temperature) ii 100°F.  Spec. No.	Manufacto  Manufacto  Ajax Forge C	essure Class	Remai	ks
(a) Casi	Vorking Pressure  Mark No.  Lings N/A  pings	ASME SA182 G	100 (Temperature) ii 100°F.  Spec. No.	Manufacto  Manufacto  Ajax Forge C	essure Class	Remai	ks

<sup>(1)</sup> For manually operated valves only.

<sup>\*</sup> Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in seems 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.

	FORM NEVE		
Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
•			
			<del>-</del>
(d) Other Parts			
HT.853543	ASME SA564 GR 630	Carpenter Tech	Disc
5400			
9. Hydrostatic test 5400	psi. Disk Differential test pressure 3600	) psi .	
Signed DRAGON VALV  (IN Certificate of Auth	tolder) by	R. L. Siny a	t 23. 1993  Following 10/1/93  [Detail
	CENTERCATION OF	0501011	
Oneina interpreta	CERTIFICATION OF Washnington Public Power		
Design information on file at Stress analysis report (Class		sup. sys.	
Design specifications certified	David J. Murp.	hy	
PE State	. Reg. No. <u>12542</u> )N/A		
PE State		— <del>— — — — — — — — — — — — — — — — — — </del>	
(1) Signature not required. Lis	st name only.		
***************************************	CERTIFICATE OF SHOP	INSPECTION	
t, the undersigned, holding a	valid commission issued by the Nati		
TA DAMEADO CAL	CALIFORNIA	d employed by H.S.B. II	NSP. & INS. CO.
HARTFORD CT.  AUGUST 24	19 93 and state that to the house	nump, or valve, described	in this Data Report on
	19 <u>73</u> , and state that to the best of min accordance with the ASME Code, Set	y knowledge and belief, the Ni ction III.	Certificate Holder has con-
	ther the inspector nor his employer m		
me edurbuleur nescunen tu ti	ns vata Raport. Furthermore, neither t	he inspector nor his emotor	ver shall be lights in any
manner for any personal injur	y or property damage or a loss of any	kind arising from or connect	ad with this inspection.
Date 8-74	19 7.3		·
(Inspector)	Commissions	CA 1716	
		(Net'l Bd , State, Prov	ned No )

- As	CERTIFICATE HOU Required by the Pr	ovisions of the	COME CODE, SEC	DON IN, DIV.	<u> </u>	8 30
lictured by	agon Valves I	nc. 13457 To	celsior Dr.	Norvalk.	CA 90650	
decrured for Toh	Plane and Address of	THE P O		hland V	99352	
ion of Installation	WNP2-Hanford Jo	obsite. Richi	and ." WA"9935	7		
	(Name and Address)	• • • • • • • • • • • • • • • • • • • •				<del></del>
	· ;	-	nlet Size <u>1/2</u> Çin	<u>Tube                                    </u>	alex Size	2 Tube
[a] Model No., (b):	N Certificate Holder <sup>1</sup> Serial	'S (t) Canadian : Registration		-	em de la company de la company.	
or Type	No.	No.	(d) Drawing	(e) Class	(f) Nat'L Bd. No.	(g) Yea
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•		SERIAL	NO. GPI	378		<del></del>
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OS& <b>Y</b> :	Instrumentation	Valves (	25 (cs.)		• • • • • • • • • • • • • • • • • • • •	•
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		OLI OLI RELAICE IDA MINO	h equipment was des	igned)		·
Conditions	3600 psi _	100 (Temperature)	h equipment was de:  — "F or Valve Pre	n		(1
Conditions	3600 psi _	100	h equipment was de:	n	***	
Conditions  Working Pressure  Wee Retaining Pieces  Mark No.	3600 psi _	100 (Temperature) _ 100°F.	h equipment was de:	ssure Class	Remark	
Norking Pressure Working Pressure We Retaining Pieces	3600 psi at	100 (Temperature) _ 100°F.	- °F or Valve Pre	ssure Class	Remark	
Vorking Pressure Working Pressure We Retaining Pieces We Mark No.	3600 psi	100 (Temperature) _ 100°F.	— °F or Valve Pre	ssure Class	Remark	
Norking Pressure — Working Pressure — We Retaining Pieces  Mark No.  Stings — None	3600 psi	100 (Temperature) 100°F. Spec. No.	— °F or Valve Pre	ssure Class	Remark	<b>S</b>
n Conditions Working Pressure Our Retaining Pieces	3600 psi	100 (Temperature) 100°F.  Spec No.	— °F or Valve Pre	ssure Class	•	<b>S</b>
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Vorking Pressure Working Pressure We Retaining Pieces We Mark No.	3600 psi = Pressure) 3600 psi at  Material S	100 (Temperature) 100°F.  Spec No.	— °F or Valve Pre	ssure Class		<b>S</b>
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Vorking Pressure Vorking V	3600 psi at  Pressure) 3600 psi at  Material S  Q  A  DATE = 12	100 (Temperature) 100°F.  Spec No.	Tor Valve Pre  Manufactu  Alax Forge	ref	HT 843	1801
Yorking Pressure Yorking Pressure We Retaining Pieces Whark No. Rings— None	3600 psi at  Pressure) 3600 psi at  Material S  Q  A  DATE = 12	100 (Temperature) 100°F.  Spec No.	Tor Valve Pre  Manufactu  Alax Forge	ref	HT 843	1801
Conditions Vorking Pressure The Retaining Pieces The Mark No. Timps — None	3600 psi at  Pressure) 3600 psi at  Material S  Q  A  DATE = 12	100 (Temperature) 100°F.  Spec No.	Tor Valve Pre  Manufactu  Alax Forge	ref	HT 843	1801
Conditions Vorking Pressure The Retaining Pieces The Mark No. Timps — None	3600 psi at  Pressure) 3600 psi at  Material S  Q  A  DATE = 12	100 (Temperature) 100°F.  Spec No.	Tor Valve Pre  Manufactu  Alax Forge	ref	HT 843	1801

of manually operated values colv.

ms 1, 2 and 5 no this man have been provided (1) size is 8-10, g.T1. (2) intermetion in

S

2

Date: 07/19/00

**Unit:** Not Applicable

Sheet: 1 of 1



## 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: NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301
  - (b) Repair Organization P.O. No, Job No, etc.: C31331
  - (c) Type Code Symbol Stamp: NWS Technologies, LLC, VR And NR
  - (d) Certificate Of Authorization No.: NWS Technologies, LLC, VR No 632 And NR No 81
  - (e) Expiration Date: NWS Technologies, LLC, VR April 03, 2003 And NR April 09, 2003
- 4. Identification Of System: Main Steam (MS) 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,
- 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 Valve Disc Insert Disc Insert Nozzle Nozzle	Crosby Crosby Crosby Crosby	N63790-03-0045 N93185-49-0190 N97499-32-0014 N93184-50-0149 N97498-44-0108	N/A N/A N/A N/A N/A	NVA NVA NVA NVA NVA	1981 N/A N/A N/A N/A	Replaced Replacement Replaced Replacement	Yes, Code Class No, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1

- 7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-00-0045 was refurbished and modified (upgraded) to Serial No N63790-03-0045 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The work was performed in accordance with NWS Technologies, LLC VR and NR programs as follows:
  - 1) Disassembled the relief valve to perform the required work.
  - 2) Removed existing disc insert Serial No N93185-49-0190 from the relief valve.
  - 3) Installed replacement (modified) disc insert Serial No N97499-32-0014 in the relief valve.
  - 4) Removed existing nozzle Serial No N93184-50-0149 from the relief valve.
  - 5) Installed replacement (modified) nozzle Serial No N97498-44-0108 (Pre Mod Serial No N93184-44-0108) in the relief valve.
  - 6) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve inlet joint. VT-3 visual examination results acceptable for all twelve (12) studs.
  - 7) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) studs.
  - 8) Performed VT-3 visual examination on the existing nuts for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) nuts.
  - 9) Reassembled the relief valve.
  - 10) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the body to bonnet joint. No evidence of leakage during the pressure test.
  - 11) Tested the relief valve at set pressure of 1165 PSIG. Test results acceptable.

#### NOTES -

1) Nozzle Serial No N93184-44-0108 was previously modified (upgraded) to Serial No N97498-44-0108 by Energy Northwest in accordance with ASME Section XI Plan No 2-1612.

# **EMERGY**NORTHWEST

Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None Test Pressure: 10 Psig Test Temperature: 83° F Component Design Pressure: 1165 Psig Temperature: 575° F
P. Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Main team Relief Valve (MSRV), Serial No N63790-03-0045 (Pre Mod Serial No N63790-00-0045), 2) See attached NV-1 Code Data Report for lain Steam Relief Valve (MSRV), Serial No N63790-00-0045 (Post Mod Serial No N63790-03-0045), 3) Component design pressure of 1165 and design temperature of 575° F is for the Main Steam Relief Valve (MSRV) set pressure and rated temperature respectively.
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 Signed By Signed By Kuldip Singh - Program Lead Engineer (PLE)  Date Date Date
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 6-5-00 to 8-23-00 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.
Commissions 7486 J IS Inspector's Signature  Commissions 7486 J IS National Board, State, and Endorsements
Date 5-23-00

	OF NUCLEAR P	I OF KËPA RESSURE	AIR 🔯 REF	PLACEMENT D	10 2-169
Work performed by:	NWS Technologies, 131 Venture Boulevard. S	LLC	Purchase O	rder# C31331	WRO # 008
2. Work performed for:	Energy Northwest - Colum			pua	7/20/00
3/4. Owner - name, add	dress and identification of nu er Plant Loop, Richland, WA	iclear power r	plant: Energy	Northwest - Colum	nbia Generating
c: Identifying nos.  HB-65-BP-F  (type) d: Construction Code  6. ASME Code Section 2  7. ASME Code Section 2  8. Construction Code use  9. Design responsibilities  10. Opening pressure:  Set-pressure adjustments	old s/n: N63790-0  FN new s/n: N63790-0  (mfr's a: ASME Sec. III Div. 1  (name/section/division)  XI applicable for inservice in:  XI used for repairs, replacements  a: N/A  1165 psig	10-0045 -03-0045 -1971 -(edition)	N/A stern (NB#) (sern N/A (addenda) 1989 (edition) 1971 (edition)	eam 6 x 10 vice) (size) 1567 & 1711 (Code Cases(s))  N/A (addenda) N/A (addenda) N/A (addenda)	1981 (yr.built 1 (Code Class) N/A (Code Case(s)) N/A (Code Case(s)) N/A (Code Case(s))
12. Remarks: See attachr		er or replacemen	п рапз): Эее а	ttachment 1.	
National Board Certificate National Board Certificate 6/19/00 NWS Te	of Authorization No. 81 chnologies, LLC epair Organization	of my knowle icemtn of the ational Board I ice use the second sec	pressure relief of Inspection Code ine "VR" stamp e ine "NR" stamp e	devices described  "VR" and "NR" ru  expires April 3, 2  expires April 9, 2	above des. 2003.
I. Carl R. Enos	CERTIFICAT	E OF INSPE	CTION		_
Vessel Inspectors and cert by Hartford Steam Boiler or replacement described in this repair, modification or r Code and the National Boa By signing this certificate, n concerning this repair, mod	replacement has been comp ind Inspection Code "VR" and leither the undersigned nor r lification or replacement designation any parties.	o by the jurisd co. of Hartford co and state pleted in accord "NR" rules. my employer in this	diction of Todd, CT have in: that to the best rdance with Second makes any warr	ennessee and one spected the repair, to f my knowledge ction XI of the of the ranty, expressed on the spectrum and the spectr	employed , modification and belief, e ASME or implied.

Date Inspector's Signature

Commissions (NB (incl endorsements) jurisdiction & no )

## FORM NVR-1 Attachment (1 of 1)

1. Work performed by:	NWS Technolog 131 Venture Bouleva	i <b>es, LLC</b> rd. Spartanburg	Purchase Order	# C31331 WRO # 008
2. Work performed for:				
3/4. Owner - name, add Generating Station.	ress and identification North Power Plant Loc	of nuclear powers	er plant: Energy Nor	thwest - Columbia
	90-03-0045			
The S/N for this valvindicate the modificate	re was <u>N63790-</u> ation of the valve to	00-0045 o a flexi-disc	The two middle dig design.	gits were changed to
WNP-2 machined NWS machined th	ork: sassembled. The restriction the restriction to the restriction of	new flexi-disc	dimensions	
<u></u>			,	(pre mod s/n N93184-44-0108)
were installed in the Both disc and noz		by NWS prior		(Free 1882 Services 1887)
Other parts replace Disc Holder Spiral Eductor Gasket:	ed during the repa Pins (2): MC 5			
After reassembly, the Seat Tightness was	ne valve set-press acceptable post-	ure was certi certification.	īed using steam a	s the lift medium.
Date NWS Tech	nnologies, LLC anization)	(authorized re	Section 1	Manager, QA
	<b>^ ^ ^</b>			\ <del></del>

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

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

## CROSBY

# CROSBY VALVE & GAGE COMPANY WRENTHAM, MASS

PLAN NO. 2-1698

FORM NV-1 FOR SAFETY AND SAFETY RELIEF V/LVES
As Required by the Provisions of the ASME Code Rules

Judip & 120

DATA REPORT Safety and Safety Relief Valves

FOR INFORMATION ONL

1. Manufactured By Crosby Va	lve & Gage Company, 43 Kendrick Name and Address	St. Wrentham, MA 02093
GENELA	der No. N94275 Contract Date	4/24/79 National Board No. N/A
2. Manufactured For San Jo	Ose, CA 95125  Name and Address	Order No. 205-AJ986
3. Owner Washington Publi	c Power Supply Systems, Ric	chland, Washington 99352
	Name and Address d Reservation, Richland, Wa	<del></del>
		······································
		-0045Drawing No. DS-A-63790 Rev.
Type Safety Relief Safety, Safety Relief, Power Actuated	Orifice Size R Inch	Pipe Size — Inlet 6 Outlet 10 Inch Inch
6. Set Pressure (psig)	1150	575° F
Seamed Consider 865	725	Rated Temperature
Stamped Capacity 865,	725 A 3 ZOverpressure	Blowdown (psig) 2% to 11%
Hydrostatic Test (psig) In	let Outlet	975 psig (Assembled Valve) 1100 psig (Body Only)
Pressure Retaining Pieces	(Applicabl	e to Valves for Closed Systems Only)
	. Serial No.	Material Specification
Bar Stock & Forgings	Identification	Including Type or Grade
Body	N93183-35-0064	ASTM A105-71 Gr. II ASME SA105 Gr. II
Bonnet	N93407-35-0027	ASTM A105-71 Gr. II ASME SA105 Gr. II
P. EXEXPERENTALIZAÇÃ	• •	
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	t <u>N93185-34-0076</u>	ASME SA637 Gr. 718
Nozzle	N93184-32-0047	ASME SA182 Gr. F316
Disc Holder*K55484-35-0	092 <u>*N89714-34-0133</u>	AMS 5662B
Spring Washers K62858-35-	K62856-35-0083	ASTM A105-71 Gr. II
Adjusting Bolt	N93410-33-0052	ASME SA105 Gr. II
-		ASME SA193 Gr. B6 .
Spindle Point K62873-37-		ASME SA564 Type 630
c. Spring K62858-35-0027	NX2689-0123	ASTM A304-66 Gr. 4161H
d. Bolting Spindle Ball Lidenxxxxxxxx K62873-37-0	146 W02212 0222	<u> 7X00380093</u>
Thrust Bearing Adapter		Stoody #6
Bonnet Stud	N93409-32-0047 (I17) N93207-0537 thru 054	ASME SA193 Gr. B6
Bonnet Stud Nut	(J87) N93207-0537 thru 054 (J87) N93210-0757 thru 076	
Inlet Stud	desired of the second	A DAMAGE AND THE REST OF THE R
Inlet Stud Nut	(BW6) N93216-0539 thru 055 (BW8) N93218-0543 thru 055	
• • • •	3	ASME SA1947Gr 2H <sup>2H</sup>

- 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 conform 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 (Date)
Date 11-5-80 Signed Crosby Valve & Gage Co. by R.G. Casavano (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 Boyd P. Brooks
PE State California Reg. No. 13655
Stress report certified by 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 199, 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.

Commissions\_

Signed

(Inspector)

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

MASS 1266

N63790-00-0045

<sup>\*</sup>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

Date: 07/19/00

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

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: NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301
  - (b) Repair Organization P.O. No, Job No, etc.: C31331
  - (c) Type Code Symbol Stamp: NWS Technologies, LLC, VR And NR
  - (d) Certificate Of Authorization No.: NWS Technologies, LLC, VR No 632 And NR No 81
  - (e) Expiration Date: NWS Technologies, LLC, VR April 03, 2003 And NR April 09, 2003
- 4. Identification Of System: Main Steam (MS) 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
Spare Valve Disc Insert Disc Insert Nozzle Nozzle	Crosby Crosby Crosby Crosby Crosby	N63790-03-0047 N93185-51-0197 N97499-34-0029 N93184-50-0146 N97498-44-0114	N/A N/A N/A N/A N/A	N/A N/A N/A N/A	1981 N/A N/A N/A N/A	Replaced Replacement Replaced Replacement	Yes, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1

- 7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-00-0047 was refurbished and modified (upgraded) to Serial No N63790-03-0047 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The work was performed in accordance with NWS Technologies, LLC VR and NR programs as follows:
  - 1) Disassembled the relief valve to perform the required work.
  - 2) Removed existing disc insert Serial No N93185-51-0197 from the relief valve.
  - 3) Installed replacement (modified) disc insert Serial No N97499-34-0029 in the relief valve.
  - 4) Removed existing nozzie Serial No N93184-50-0146 from the relief valve.
  - 5) Installed replacement (modified) nozzle Serial No N97498-44-0114 (Pre Mod Serial No N93184-44-0114) in the relief valve.
  - 6) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve inlet joint. VT-3 visual examination results acceptable for ten (10) studs. Two (2) studs were missing.
  - 7) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) studs.
  - 8) Performed VT-3 visual examination on the existing nuts for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) nuts.
  - 9) Reassembled the relief valve.
  - 10) Installed two (2) replacement studs for the relief valve inlet joint.
  - 11) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the body to bonnet joint. No evidence of leakage during the pressure test.
  - 12) Tested the relief valve at set pressure of 1175 PSIG. Test results acceptable.

#### NOTES -

- 1) Nozzie Serial No N93184-44-0114 was previously modified (upgraded) to Serial No N97498-44-0114 by Energy Northwest in accordance with ASME Section XI Plan No 2-1669.
- 2) Energy Northwest performed VT-1 visual examination on two (2) replacement studs for the relief valve inlet joint. VT-1 visual examination results acceptable.



8	Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None Test Pressure: 10 Psig Test Temperature: 82° F Component Design Pressure: 1175 Psig Temperature: 575° F
St Ma	Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Mair earn Relief Valve (MSRV), Serial No N63790-03-0047 (Pre Mod Serial No N63790-00-0047), 2) See attached NV-1 Code Data Report for ain Steam Relief Valve (MSRV), Serial No N63790-00-0047 (Post Mod Serial No N63790-03-0047), 3) Component design pressure of 1175 ig and design temperature of 575° F is for the Main Steam Relief Valve (MSRV) set pressure and rated temperature respectively.
	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 Signed By Kuldip Singh - Program Lead Engineer (PLE)  Date Date
	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 (a) (b) (b) (c) (c) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e
	Commissions 7486 U 7486 I I S Inspector's Signature  National Board, State, and Endorsements  Date 8/13/00
Ì	

# OF NUCLEAR PRESSURE RELIEF DEVICES PLAN No.2-1699

1. Work performed by:	NWS Technolo	ogies, LLO	anburg, S	Purchas SC 29301	e Order#_	C31331 V	VRO # 008
2. Work performed for:	Energy Northwest	- Columbia (	Generatin	g Station		4·w	2/20/L
3/4. Owner - name, add	fress and identificati er Plant Loop, Richla	on of nuclea	f DOWAL D		ergy Northw	est - Colum	bia Generating
5. a: Repaired pressure	e relief device: M	ain Steam S	afety Reli	ef Valve			
b: Name of manufact	turer: Crosby Valv	e & Gage Co	).				
c: Identifying nos. HB-65-BP-F		63790-00-00					
(type)	114 116W S/II	V63790-03-0	047	N/A	steam	6 x 10	1981
d: Construction Code	: ASME Sec. III D	(mfr's S/N) )iv. 1	1971	(NB#) N/A	(service)	(size)	(yr.built)
	(name/section/divis		(edition)	(addenda		& 1711 Cases(s))	1
6. ASME Code Section >	(I applicable for inse	envice inspec	- ,	•			(Code Class)
				198		N/A	N/A
7. ASME Code Section X	(I used for repairs, r	epiacements	<b>:</b> :	(edition) 198	•	ddenda) N/A	(Code Case(s)) N/A
8. Construction Code use	ed for repairs, replac	omonto:		(editio		ddenda)	(Code Case(s))
	re ter repland, replan	zements.		197		N/A	N/A
9. Design responsibilities	: <b>N/A</b>			(editio	n) (ad	ddenda)	(Code Case(s))
10. Opening pressure: 1	175 psig					<u>-</u>	
Set-pressure adjustm		NWS Techno	ningies I	1.0			
11. Description of work (i						team	
	made manic and identify	ying number of	replacemen	t parts): Se	ee attachme	nt 1.	· · · · · · · · · · · · · · · · · · ·
12. Remarks: See attachr	ment 1						
I, Cesar V. Sierra	CER	TIFICATE O	F COMP	LIANCE			
report are correct and the	certify that to t	ne best of m	y knowied	ige and be	lief the state	ements mad	e in this
report are correct and the conforms to Section XI of National Board Certificate	the ASME Code and	the Nationa	in of the p	ressure re	lief devices	described a	bove
National Board Certificate	of Authorization No	632	to use the	ispection ( e "VR" star	ode "VR" a		
National Board Certificate	of Authorization No.		to use the	= "NR star	np expires	April 3, 2	
6/19/00 NWS Ter	chnologies, LLC		1/2		ip expires	April 9, 2	003.
	pair Organization		Author	ed represent	er	Mana	ger. QA
	CEP	TIEICATE			xive		Title
Carl R. Enos	holding a valid	TIFICATE O	ioound bu	. Th			
Vessel inspectors and certi	holding a valid ificate of competence						
by Hardord Steam Boller	rinspection & Insu	rance Co. o	f Hartford	CT bas	Tenness	ee and e	mployed
or replacement described in	this report on	0/19/00	and state	that to the	e inspected	the repair,	modification
this repair, modification or r Code and the National Boar	Chicochicili 1192 Thi	+II Compiaia <i>i</i>	in acce	dance with	Section XI	of the of the	ind belief,
By signing this certificate, no concerning this repair, modificate, and concerning this repair, modificate and concerning this repair.	either the undersign	ed nor my e	mployer r	nakes any	warranty, e	xpressed or	implied
nor my employer shall be lia arising from or connected w	,a.,(C)	or any perso	nal injury	, property o	damage or I	oss of any k	sind .
	in this hispection.					•	
6/19/00 (Va	M K. Em		NB	# 8460, A	N, I TN#	2236	
Date	Inspector's Signatu	ıre			(incl endorser		200 8 000

### FORM NVR-1 Attachment (1 of 1)

1. Work performed by: NWS Tech 131 Venture B	nologies, LLC Purchase Ord Boulevard, Spartanburg, SC 29301	der#
2. Work performed for: Energy North	west - Columbia Generating Station	
3/4. Owner - name, address and ident Generating Station, North Power P	tification of nuclear power plant: Energy l Plant Loop, Richland, WA 99352-0968	Northwest - Columbia
Valve S/N: N63790-03-0047		
The S/N for this valve was No indicate the modification of the v		digits were changed to
disc.	. The nozzle was removed and retu	urned to site with the
WNP-2 machined the nozzle NWS machined the Disc Ring Disc S/N: N97499-34-00	to the new flexi-disc dimensions.  per Crosby Instruction Manual CV  29 and Nozzle S/N:	/I No. 02-932-00. <b>N97498-44-0114</b>
were installed in the valve.  Both disc and nozzle were po	lished by NWS prior to installation.	(pre mod s/n N93184-44-0114)
Other parts replaced during the Disc Holder Spiral Pins (2): Eductor Gasket: Spindle:	ne repair include: MC 54407794 MC 56230461 New S/N: K82137-33-0011 (old S	
Inlet Studs (2):	H/C: <u>N</u> B7 HBW	,
After reassembly, the valve se	H/C: <u>N</u> B7 HBW  et-pressure was certified using stear at tightness test, was jacked and lar	m as the lift medium
After reassembly, the valve se The valve failed the steam sea	H/C: N B7 HBW  et-pressure was certified using steam at tightness test, was jacked and lap tightness tested on steam.	m as the lift medium.  oped to restore seat  Manager, QA  (title)

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

Inspector's Signature

Kularin Finish

## CROSBY

Addingting Rolf Ruffon

## CROSBY VALVE & GAGE COMPANY

WRENTHAM, MASS PLAN, NO.2-1699

TUR MARCHARITATION WITH I

Autaup Sups

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 8	Gage Company, 43 Kendrick	St., Wrentham, MA 02093
	Name and Address	
Model No. HB-65-BP-FN Order N	lo. N94275 Contract Date	e 4/24/79 National Board No. N/A
2. Manufactured For San Jose.	ectric Company, 1/5 Cur	tner Ave.,
Na	the and Address	Order No. 205-AJ986
3. Owner Washington Public Po	wer Sunnly System Pic	hland Washington 00252
	Name and Address	miand, washington 99352
4. Location of Plant Hanford Res	servation, Richland, Wa	shington 99352
5. Valve Identification MPL #B22-	-F013Serial No. N63790-00	-0047Drawing No. DS-A-63790 Rev.
Type Safety Relief	Orifice Size R	Pipe Size Inlet 6 Outlet 10
Safety, Safety Relief, Pil Power Actuated	ot, Inch	
6. Set Pressure (psig) 1175		575° F
· · · · · · · · · · · · · · · · · · ·		Rated Temperature
Stamped Capacity 884,314	e 3 ZOverpressure -	Blowdown (psig) 27 to 117
		975 Dsig (Assembled Valve)
Hydrostatic Test (psig) Inlet_	OutletI	100 psig (Body Only)
Pressure Retaining Pieces	(Applicab)	le to Valves for Closed Systems Only)
•	Serial No.	
Rer Stock & Forgings	Identification	Material Specification Including Type or Grade
RET STOCK & Forgings		
Body	N93183-35-0066	ASTM A105-71 Gr. II ASME SA105 Gr. II
Bonnet	N02407 25 0020	ASTM A105-71 Gr. II ASME SA105 Gr. II
p. Antigonation of the state of	<u>N93407-35-0029</u>	ASME SAIUS Gr. II
	M0210F 2/ 0270	
Experiment Disc Insert	N93185-34-0078	ASME SA637 Gr. 718
Nozzle	N93184-32-0049	ASME SA182 Gr. F316
Disc Holder*K55484-35-0098	*N89714-34-0136	AMS 5662B
	K62856-35-0085 K62857-35-0050	ASTM A105-71 Gr. II
Spring WashersK62858-35-0029	K62857-35-0050	ASME SAIOS Gr. II
Adjusting Bolt	N93410-33-0054	ASME SA193 Gr. B6
Spindle Point K62873-37-0148	N89720-43-0147	ASTM A564-71 Type 630 ASME SA564 Type 630
c. Spring K62858-35-0029	*N89722-0003	ASTM A304-66 Gr. 4161 H
d. Bolting		
e. Spindle Ball K62873-37-0148	N93213-0215	ZX00380110
Thrust Bearing Adapter	N93409-32-0049	Stoody #6 ASME SA193 Gr. B6
/9226 23		
		BUIL DAISS GL. DI
Bonnet Stud Nut (J8		
Inlet Stud (BW	6) N93216-0563 thru 05	74 ASME SA193 Gr. B7
Inlet Stud Nut (BW	8) N93218-0567 thru 05	78 ASTM A194-71 Gr. 2H
		ASME SA194 Gr. 2H

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 1/-5-80 Signed Crosby Valve & Gage Co. by C.C. Caracacacacacacacacacacacacacacacacacaca
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 //-5-80 Signed Crosby Valve & Gage Co. by C.C. Color (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 Boyd P. Brooks  PE State California Reg. No. 13655  Stress report certified by W.D. Greenlaw  Reg. No. 14784
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 Bovd P. Brooks  PE State California
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 Bovd P. Brooks  PE State California Reg. No 13655  Stress report certified by W.D. Greenlaw  PE State Massachusetts Reg. No 14784
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PE State California Reg. No. 13655 Stress report certified by W.D. Greenlaw PE State Massachusetts Reg. No. 14784
Stress report certified by W.D. Greenlaw  PE State Massachusetts Reg. No. 14784
PE State Massachusetts Reg. No. 14784
Signature not required - list name only.
, <del></del>
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 1951 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

<sup>\*</sup>Arkwright-Boston Manufacturers Mutual Insurance Company - Mutual Boiler & Machinery Div.

Date: 07/19/00

Unit: Not Applicable

Sheet: 1 of 1



## 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: NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301
  - (b) Repair Organization P.O. No, Job No, etc.: €31331
  - (c) Type Code Symbol Stamp: NWS Technologies, LLC, VR And NR
  - (d) Certificate Of Authorization No.: NWS Technologies, LLC, VR No 632 And NR No 81
  - (e) Expiration Date: NWS Technologies, LLC, VR April 03, 2003 And NR April 09, 2003
- 4. Identification Of System: Main Steam (MS) 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,
- 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 Bulit	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare Valve Disc Insert Disc Insert Nozzie Nozzie	Crosby Crosby Crosby Crosby Crosby	N63790-03-0048 N93185-45-0155 N97499-34-0030 N93184-47-0120 N97498-42-0104	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	1980 N/A N/A N/A N/A	Replaced Replacement Replaced Replaced	Yes, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1

- 7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-00-0048 was refurbished and modified (upgraded) to Serial No N63790-03-0048 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The work was performed in accordance with NWS Technologies, LLC VR and NR programs as follows:
  - 1) Disassembled the relief valve to perform the required work.
  - 2) Removed existing disc insert Serial No N93185-45-0155 from the relief valve.
  - 3) Installed replacement (modified) disc insert Serial No N97499-34-0030 in the relief valve.
  - 4) Removed existing nazzle Serial No N93184-47-0120 from the relief valve.
  - 5) Installed replacement (modified) nozzle Serial No N97498-42-0104 (Pre Mod Serial No N93184-42-0104) in the relief valve.
  - 6) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve inlet joint. VT-3 visual examination results acceptable for ten (10) studs. One (1) stuck/damaged stud was removed. One (1) stud was removed after VT-3 visual examination.
  - 7) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) studs.
  - 8) Performed VT-3 visual examination on the existing nuts for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) nuts.
  - 9) Reassembled the relief valve.
  - 10) Installed two (2) replacement studs for the relief valve inlet joint.
  - 11) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the body to bonnet joint. No evidence of leakage during the pressure test.
  - 12) Tested the relief valve at set pressure of 1175 PSIG. Test results acceptable.

#### NOTES -

- 1) Nozzle Serial No N93184-42-0104 was previously modified (upgraded) to Serial No N97498-42-0104 by Energy Northwest in accordance with ASME Section XI Plan No 2-1669.
- 2) Energy Northwest performed VT-1 visual examination on two (2) replacement studs for the relief valve inlet joint. VT-1 visual examination results acceptable.

## **EMERGY**NORTHWEST

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

Tests Conducted: Hydrostatic Pneumatic Test Pressure: 10 Psig Component Design Pressure:	Test Temperature: 81° F
eam Relief Valve (MSRV), Serial No N63790-03-0048 (Pre Mo ain Steam Relief Valve (MSRV), Serial No N63790-00-0048 (P	ort Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Mod Serial No N63790-00-0048), 2) See attached NV-1 Code Data Report for Mod Serial No N63790-03-0048), 3) Component design pressure of 11 blief Valve (MSRV) set pressure and rated temperature respectively.
CERTIFICA	ATE OF COMPLIANCE
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  Kuklip Singh - Program Lead Engineer (I	Signed By Kuldip Singh - Program Lead Engineer (PLE)  Date
CERTIFICATE O	OF INSERVICE INSPECTION
I, the undersigned, holding a valid commission Vessel inspectors and the State of Washington Johnston, Rhode Island have inspected the comperiod 6 5 6 to 8 7 7 8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	an issued by the National Board of Boller and Pressure and employed by Factory Mutual Insurance Company of aponents described in this Owner's Report during the and state to the best of my knowledge and belief, the n corrective measures described in this Owner's Report
Inspector's Signature	Commissions 7486w/7486 I IS  National Board, State, and Endorsements
Date 8/127/00	_

# OF NUCLEAR PRESSURE RELIEF DEVICES PLAN NO. 2-1700

1. Work performed by:	NWS Technologies, LL	C	Purchase O	rder # C31331	WRO # 008
_	131 Venture Boulevard, Spart	anburg, S	SC 29301	Qu	Jail Eur
	Energy Northwest - Columbia			· ·	2/20/6
3/4. Owner - name, add Station, North Powe	ress and identification of nuclea r Plant Loop, Richland, WA 993	ar power p 352-0968	lant: Energy	Northwest - Colum	bia Generating
5. a: Repaired pressure	relief device: Main Steam S		ef \/alve		
b: Name of manufact	urer: Crosby Valve & Gage C	O.	C. Valve		
c: Identifying nos.	old s/n: N63790-00-00	)48			
HB-65-BP-F	N new s/n: N63790-03-0	0048	N/A ste	eam 6 x 10	1980
(type)	(mfr's S/N)	)	(NB#) (sei	vice) (size)	(yr.built)
d: Construction Code		1971	N/A	1567 & 1711	(yr.buil.)
	(name/section/division)	(edition)	(addenda)	(Code Cases(s))	(Code Class)
6. ASME Code Section X	(I applicable for inservice inspe	ction:	1989	N/A	N/A
7 ASME Code Section V	I upped for		(edition)	(addenda)	(Code Case(s))
TOWIL Code Section A	I used for repairs, replacement	S:	1989	N/A	N/A
8. Construction Code use	ed for repairs, replacements:		(edition)	(addenda)	(Code Case(s))
			1971	_ <u>N/A</u> -	N/A
9. Design responsibilities:	: N/A		(edition)	(addenda)	(Code Case(s))
10. Opening pressure: 1					
Set-pressure adjustme		ologica I			
				sing steam	
Description of Work (ii	nclude name and identifying number of	replacement	parts): See a	ttachment 1.	
12. Remarks: See attachn	nent 1				
l. Cesar V. Sierra	CERTIFICATE C	)F COMPL	LIANCE		
report are correct and the	certify that to the best of mention repair, modification or replacements ASME Code and the Alexien				
conforms to Section XI of t	the ASME Code and the Nation	ith of the p	ressure relief	devices described	above
National Board Certificate	of Authorization No. 632	al board in	Ispection Code	e "VR" and "NR" ru	
National Board Certificate	of Authorization No. 81	to use the	= "VR" stamp ∈		
1/10/0	<del></del>		"NR" stamp	expires April 9, 2	2003.
	chnologies, LLC //	ELRI	LEARE!	/ Mana	ger. QA
Te Te		7	ed representative		Title
l, Carl R. Enos	CERTIFICATE C	F INSPEC	CTION		
	holding a valid commission	issued by	The National	Board of Boiler and	Pressure
by Hartford Steam Roller	noute of contreletion regular no	The words		•	
or replacement described in	Inspection & Insurance Co. of this report on	of Hartford	, CT have in	spected the repair	modification
Code and the National Boar	eplacement has been complete rd Inspection Code "VR" and "N	d in accord	dance with Se	ction XI of the of the	e ASME
concerning this repair, modi	either the undersigned nor my e	imployer n	nakes any war	ranty, expressed o	r implied.
	fication or replacement describe tible in any manner for any personal this inspection				
arising from or connected w	ith this inspection.	orial injury,	, property dam	age or loss of any	kind
6/19/00	CRO				
Date	Inspector's Signature		# 8460, A, N,		
	areas. 3 Oignatule	Com	missions (NB (inc	endorsements), jurisdi	ction & no )

## FORM NVR-1 Attachment (1 of 1)

1. Work performed by: NWS Technol 131 Venture Boule	ogies, LLC evard, Spartant	Purchase Order #_ ourg, SC 29301	C31331 WRO # 008
2. Work performed for: Energy Northwest	- Columbia Gen	erating Station	
3/4. Owner - name, address and identifica Generating Station, North Power Plant	tion of nuclear p Loop, Richland,	ower plant: Energy Northw WA 99352-0968	est - Columbia
Valve S/N: N63790-03-0048			
The S/N for this valve was N6379 indicate the modification of the valve	90-00-0048 e to a flexi-dis	The two middle digits sc design.	were changed to
11. Description of work: The valve was disassembled. The disc. WNP-2 machined the nozzle to the NWS machined the Disc Ring per Disc S/N: N97499 34 0030	ne new fleyi.d	isc dimensions	
Disc S/N: N97499-34-0030	and		02-932-00. <b>197498-42-0104</b>
were installed in the valve. Both disc and nozzle were polished	ed by NWS pr		e mod s/n N93184-42-0104)
Eductor Gasket: MC	epair include: C 54407794 C 56230461 C: <u>N</u> B7 HBW		
After reassembly, the valve set-pre The valve failed the steam seat tig integrity and successfully seat tight	niness test w	ISS ISCRED and langed to	he lift medium. o restore seat
Date NWS Technologies, LLC (repair organization)	(authorized	en servel de representative	Manager, QA (title)

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



# CROSBY VALVE & GAGE COMPANY WRENTHAM, MASS OF A ......

PLAN NO. 2-1700

FORM NV-1 FOR SAFETY AND SAFETY RELIEF V/LVES
As Required by the Provisions of the ASME Code Rules

Maip Eugh

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosb	y Valve & Gage Compa	ny, 43 Kendri	ick St.	Wrentham, MA 02093
	Name and	Address	•	· · · · · · · · · · · · · · · · · · ·
Model No HB-65-BP-FN	_Order No. N94275	Contract D	Date 4/2	4/79 National Board No. N/A
2. Manufactured For Sar		mpany, 175 (	Curtner	Ave., er No. <u>205-AJ986</u>
3 Amer Washington Pul			. 431	
3. Owner Washington Pub	Name and	Address	chiand,	Washington 99352
4. Location of Plant HE				ngton 99352
5. Valve Identification ME	7L #B22-F013 Serial	No. N63790-	00 <u>-</u> 0048	Drawing No. DS-A-63790 Rev.
Type Safety Reli	lef Or	ifice Size R	Pips	SEEinter-6 - Outles 10
Power Actuated	1161, 11101,	In	ich [ Li	rejuchtstätlicht fiftuch
6. Set Pressure (psig)	1175			575 <sup>0</sup>
		an an war een war	·	Rated Temperature
Stamped Capacity 85	54,314 e 3 z	Overpressure_	Blow	down (psig) 2% to 11%
Hydrostatic Test (psig	) Inlet2370	Outlet	975 1100	psig (Assembled Valve)
Pressure Retaining Pieces		(Applic	able to	Valves for Closed Systems Only)
	Serial		<b></b>	
Bar Stock & Forging				Material Specification
a. XOREXXXXXX				Including Type or Grade
Body	N93183=	35=0067	••	ASTM A105-71 Gr. II ASME SA105 Gr. II
	•	• <b>4.</b> ) • • • • •		ASTM A105-71 Gr. II
Bonnet	<u>N93407-</u>	<u>35=0030</u>		ASME SA105 Gr. II
p · NOREX (CENTRAL EXECUTIVE CO.	-			
MONTH Disc In	sert <u>N93185</u> -	34-0079	• •	ASME SA637 Gr. 718
Nozzle	******	22 222		
MOSSIE	<u> </u>	33-0052		ASME SA182 Gr. F316
Disc Holder*K55484-3			••	AMS 5662B
Spring Washers K62858-	K62856-	35-0086		ASTM A105-71Gr. II
Spring Washers AU2030-	33-0030 K02037-	35-0051		ASME SA105 Gr. II
Adjusting Bolt	N93410-	33-0055		ASME SA193 Gr. B6
Spindle Point K62873-	35-0048_ *N89720-	34-0065		ASTM A564-71 Type 630 ASME SA564 Type 630
c. Spring K62858-35-0030	<del></del>			ASTM A304-66 Gr. 4161H
d. Bolting		000-	<del></del>	
Spindle Ball e. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	5.0049 302212	00/0	<del></del>	ZX00380113
		0048		Stellite #6
Thrust Bearing Adapt	er N93409-	32-0050		ASME SA193 Gr. B6
Bonnet Stud	(II7) N93207-	0573 thru (	0584	ASTM £193-/1 Gr. B/ ASME \$A193 Gr. B7
Bonnet Stud Nut	(J87) N93210-	0793 thru (	0804	ASME SA194 Gr. 2H
Inlet Stud		0575 thru (		ASTM A193-/1 Gr. B/ ASME SA193 Gr. B7
Inlet Stud Nut		0579 thru (		ASTM A194-71 Gr. 2H
			· · ·	ASME SA194 Gr. 2H

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.

N63790-00-0048 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 1\_\_\_ (Date) Class Date 1/-5-80 Signed Crosby Valve & Gage Co. by R. G. Casarers (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 Boyd P. Brooks PE State California Reg. No. 13655 Stress report certified by W.D. Greenlaw PE State Massachusetts Reg. No. 14784 1Signature not required - list name only. CANADA ENGLISCONOS CONTRACTOS CON twee rice weresterrwer with 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, 19 00 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. M1 124 19 80 . Signed (Inspector)

<sup>\*</sup>Arkwright-Boston Manufacturers Mutual Insurance Company - Mutual Boiler & Machinery Div.

Date: 07/19/00

**Unit:** Not Applicable

Sheet: 1 of 1



## 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: NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301
  - (b) Repair Organization P.O. No, Job No, etc.: C31331
  - (c) Type Code Symbol Stamp: NWS Technologies, LLC, VR And NR
  - (d) Certificate Of Authorization No.: NWS Technologies, LLC, VR No 632 And NR No 81
  - (e) Expiration Date: NWS Technologies, LLC, VR April 03, 2003 And NR April 09, 2003
- 4. Identification Of System: Main Steam (MS) 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
Spare Valve Disc Insert Disc Insert Nozzle Nozzle	Crosby Crosby Crosby Crosby Crosby	N63790-03-0053 N93185-56-0249 N97499-32-0020 N93184-56-0174 N97498-50-0145	NYA NYA NYA NYA NYA	NA NA NA NA NA	1980 N/A N/A N/A N/A	Replaced Replacement Replaced Replacement	Yes, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1
		e de la companya del companya de la companya de la companya del companya de la co	:				

- 7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-00-0053 was refurbished and modified (upgraded) to Serial No N63790-03-0053 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The work was performed in accordance with NWS Technologies, LLC VR and NR programs as follows:
  - 1) Disassembled the relief valve to perform the required work.
  - 2) Removed existing disc Insert Serial No N93185-56-0249 from the relief valve.
  - 3) installed replacement (modified) disc insert Serial No N97499-32-0020 in the relief valve.
  - 4) Removed existing nozzle Serial No N93184-56-0174 from the relief valve.
  - 5) Installed replacement (modified) nozzle Serial No N97498-50-0145 (Pre Mod Serial No N93184-50-0145) in the relief valve.
  - 6) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve inlet joint. VT-3 visual examination results acceptable for seven (7) studs. One (1) stuck/damaged stud was removed. Four (4) studs were missing.
  - 7) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) studs.
  - 8) Performed VT-3 visual examination on the existing nuts for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) nuts.
  - 9) Reassembled the relief valve.
  - 10) Installed five (5) replacement studs for the relief valve inlet joint.
  - 11) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the body to bonnet joint. No evidence of leakage during the pressure test.
  - 12) Tested the relief valve at set pressure of 1185 PSIG. Test results acceptable.

#### NOTES -

- 1) Nozzle Serial No N93184-50-0145 was previously modified (upgraded) to Serial No N97498-50-0145 by Energy Northwest in accordance with ASME Section XI Plan No 2-1612.
- 2) Energy Northwest performed VT-1 visual examination on five (5) replacement studs for the relief valve inlet joint. VT-1 visual examination results acceptable.

PLAN No 2-1701

# **EMERGY**NORTHWEST

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

8	Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other Non- Test Pressure: 10 Psig Test Temperature: 89° F Component Design Pressure: 1185 Psig Temperature: 575° F
Sta	Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Main Relief Valve (MSRV), Serial No N63790-03-0053 (Pre Mod Serial No N63790-00-0053), 2) See attached NV-1 Code Data Report for alm Steam Relief Valve (MSRV), Serial No N63790-00-0053 (Post Mod Serial No N63790-03-0053), 3) Component design pressure of 1185 and design temperature of 575° F is for the Main Steam Relief Valve (MSRV) set pressure and rated temperature respectively.
	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 - Frogram Lead Engineer (PLE)  Date  Date  Date
	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 6000 to 8000 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.
	Commissions 7486 W/7486 I IS Inspector's Signature Commissions National Board, State, and Endorsements
	Date &-24-00

# FORM NVR-1 REPORT OF REPAIR REPLACEMENT OF NUCLEAR PRESSURE RELIEF DEVICES PLAN No. 2-1701

			40,0
Work performed by: NWS Technologies, LLC     131 Venture Boulevard, Spartanbur	Purchase Or		WRO # 008
Work performed for: Energy Northwest - Columbia General Columbia Gene		Du	
			7/20/0
3/4. Owner - name, address and identification of nuclear pow Station, North Power Plant Loop, Richland, WA 99352-09	ver plant: Energy l 968	Northwest - Colum	ibia Generating
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 stea	am 6 x 10	1980
(type) (mfr's S/N) d: Construction Code: ASME Sec. III Div. 1 197	(NB#) (serv		(yr.built)
d. Construction Code: ASME Sec. III Div. 1 197 (name/section/division) (edition		1567 & 1711 (Code Cases(s))	1
6. ASME Code Section XI applicable for inservice inspection:	, (3230,122)		(Code Class)
and a second the applicable for inservice inspection:	1989	N/A	N/A
7. ASME Code Section XI used for repairs, replacements:	(edition) 1989	(addenda) N/A	(Code Case(s)) N/A
8. Construction Code used for repairs, replacements:	(edition)	(addenda)	(Code Case(s))
o. Constituction Code asea for repairs, replacements:	1971	N/A	N/A
9. Design responsibilities: N/A	(edition)	(addenda)	(Code Case(s))
10. Opening pressure: 1185 psig			
Set-pressure adjustment made at: NWS Technologie	ne IIC		
		ng <u>steam</u>	
11. Description of work (include name and identifying number of replace	ement parts): See at	tachment 1.	
12 Pomerke: Con other burner			
12. Remarks: See attachment 1.			
CERTIFICATE OF CO	MPLIANCE		
Cesar V. Sierra certify that to the best of my kno	wledge and belief the	he statements mad	de in this
- Part and don't and the repair, intuling all of the paracement of	the properties solicit d		
National Board Continues of A. W. Code and the National Boa	ard Inspection Code	"VR" and "NR" ru	les.
National Board Cortificate of Authority	se the "VR" stamp e		
1 116/	e the "NP" stamp e	xpires April 9, 2	2003.
Date NWS Technologies, LLC	ed Sieres	Mana	ager. QA
Date Repair Organization Au	thorized representative		Title
CERTIFICATE OF INS	SPECTION		
Carl R. Enos holding a valid commission issue	ad by The Alexianal F	Board of Boiler and	Pressure
and certificate of Cottibetency issued by the in	tricdiction of Ta		. 1
Hartford Steam Boiler Inspection & Insurance Co. of Hart replacement described in this report on	tford, CT have ins	spected the repair.	modification
The second of th	ISIA that to the beet	and make the accordance of the	
nis repair, modification or replacement has been completed in a	ccordance with Sec	tion XI of the of th	e ASME
ode and the Matienal Board Hispection Code "VR" and "NR" ni	اعدا		
y signing this certificate, neither the undersigned nor my emplo	yer makes any warr	anty, expressed o	r implied.
oncerning this repair, modification or replacement described in the my employer shall be liable in any manner for any passent of the same passent in the same passent	this report. Futherm	ore, neither the ur	idersigned
or my employer shall be liable in any manner for any personal in rising from or connected with this inspection.	njury, property dama	age or loss of any	kind
6/19/00 (10)			
tuti I. Euro	NB # 8460, A. N.	TN# 2236	İ
Date Inspector's Signature		11117 2200	1

### FORM NVR-1 Attachment (1 of 1)

		•	
1. Work performed by: NWS Tech 131 Venture	nnologies, LLC Boulevard, Spartanburg	Purchase Order , SC 29301	#C31331 WRO # 008
2. Work performed for: Energy North	west - Columbia Genera	ting Station	
3/4. Owner - name, address and iden Generating Station, North Power F	itification of nuclear power	er plant: Energy Nor A 99352-0968	thwest - Columbia
Valve S/N: N63790-03-0053			
The S/N for this valve wasNe indicate the modification of the	63790-00-0053 valve to a flexi-disc	The two middle dig design.	gits were changed to
11. Description of work: The valve was disassembled disc. WNP-2 machined the nozzle NWS machined the Disc Ring Disc S/N: N97499-32-00	to the new flexi-disc g per Crosby Instruc	: dimensions	
			(pre mod s/n N93184-50-0145)
were installed in the valve.			
Both disc and nozzle were po	lished by NWS prior	to installation.	
Other parts replaced during the Disc Holder Spiral Pins (2): Eductor Gasket: Inlet Studs (5):	ne repair include: MC 54407794 MC 56230461 H/C: 4 studs - <u>N</u> B7	7 KMY, 1 stud - <u>N</u>	B7 HBW
After reassembly, the valve se Seat tightness was acceptable	et-pressure was certi post-certification.	fied using steam a	as the lift medium.
Date NWS Technologies, L (repair organization)	LC Vella (authorized re	epresentative)	Manager, QA (title)

NB # 8460, A, N, I

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

## CROSBY

 LONINO,27110
1.0.01
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FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES As Required by the Provisions of the ASME Code Rules

7/20/0.C.-440

	Safet	DATA REPORT y and Safety Relief Val		in withhead wi	٤٤
1.	Manufactured By Crosby Valve & (	Gage Company, 43 Kendri	ick St. Uras	ithan MA 07003	
	·	Name and Address	,		
•	Model No. HB-65-BP-FN Order No General Elect	. N94275 Contract I	Date 4/24/79	National Board No. N/	/A
2.	Manufactured FOT San Jose, CA	tric Company, 175 Ct 95125 and Address	urtner Ave. Order N	lo. 205-AJ986	
3.	Owner Washington Public Sup		d. Washing	con 99352	
		Name and Address	-	7,000	_
4.	Location of Plant Hanford Res	servation, Richland	, Washingto	on 99352	
5.	Valve Identification MPL #B22-F	013 Serial No. N63790-	00-0053 Draw	ing No. DS-A-63790 Rev	v
	Type Safety Relief	Orifice Size	R Pipe Size	e Inlet 6 Outlet !	10
	Safety, Safety Relief, Pilo Power Actuated	i, Ir	nch		ch
6.	Set Pressure (psig) 1185	: .		575°	F
•			Rat	ed Temperature	<b>—</b> '
٠.	Stamped Capacity 891,750	e 3 ZOverpressure	Bloudour	(psig) 27 to 117	
	Hydrostatic Test (psig) Inlet	2370	. 975 psi	(psig) 2% to 11% (g (Assembled Valve) (Body Only)	
	name of the state	Applic	able to Valv	(Body Only) Wes for Closed Systems On	nly:
Pī	essure Retaining Pieces		•	,	
		Serial No. Identification		sterial Specification	
a.	Bar Stock & Forgings	respectives		cluding Type or Grade	
	Body	N93183-35-0072	AS AS	TM A105-71 Gr. II ME SA105 Gr. II	
	Bonnet	N93407-35-0035	AS:	TM Al05-71 Gr. II ME SAl05 Gr. II	
ъ.	Packrobixkoomines	is the account of the co		· · · · · · · · · · · · · · · · · · ·	_
	Soppexectors Disc Insert	N93185-34-0085	AS	ME SA637 Gr. 718	
	Nozzle	N93184-33-0057	AS	ME SA182 Gr. F316	
	Disc Holder*K55484-35-0082	*N89714-34-0089	AM	S_5662B	
	Spring Washers K62858-35-0035_	K62856-35-0091 K62857-35-0056	AS	TM A105-71 Gr. II	
				ME SA105 Gr. II	
	Adjusting Bolt	N93410-33-0060		ME SA193 Gr. B6	
	SpindlePoint K62873-35-0053_	*N89720-34-0085	AS:	TM A564-71 Type 630 ME SA564 Type 630	
c.	Spring K62858-35-0035	*N89722-0011		TM A304-66 Gr. 4161H	[
d.	Bolting			-ZX0038012	
e.	Spindle Ball Cobexident K62873-35-0053	N93213-0053	St	ellite #6	7
	Thrust Bearing Adapter	N93409-32-0055	AS	ME SA193 Gr. B6	
	Bonnet Stud (II7, BW5	) N93207-0633 thru	0644 AS	TM A193-71 Gr. B7 ME SA193 Gr. B7	
		) N93210-0853 thru	0864 AS	ME SA194 Gr. 2H	
	Inlet Stud (BW6	) N93216-0635 thru		ME SA193 Gr. B7	
		N93218-0639 thru	neen AS	TM A194-71 Gr. 2H ME SA194 Gr. 2H	
	Adimeting Polt Putton	NG3/11-22-0062	4.6	ME CALCO C. DC	

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.

N63790-00-53
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)
Date 11-5-80 Signed Crosby Valve & Gage Co. by M. G. Casavante (N Certificate Holder)
Our ASME Certificate of Authorization No. 1878 to use the NV
symbol expires <u>September 30, 1983</u> . (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 Boyd P. Brooks  PE State California Reg. No. 13655
PE State California Reg. No. 13655  Stress report certified by W. D. Greenlaw
Stress report certified by W. D. Greenlaw
PE State Massachusetts Reg. No. 14784
1Signature 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 1/21, 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 11/2/ 1980.
Signed (Inspector) Commissions MASS 126 C (Nat'l. Bd., State, Prov. and No.)

Date: 07/19/00

Sheet: 1 of 1

**Unit:** Not Applicable



## 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: NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301
  - (b) Repair Organization P.Q. No, Job No, etc.: C31331
  - (c) Type Code Symbol Stamp: NWS Technologies, LLC, VR And NR
  - (d) Certificate Of Authorization No.: NWS Technologies, LLC, VR No 632 And NR No 81
  - (e) Expiration Date: NWS Technologies, LLC, VR April 03, 2003 And NR April 09, 2003
- 4. Identification Of System: Main Steam (MS) 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
Spare Valve Disc Insert Disc Insert Nozzie Nozzie	Crosby Crosby Crosby Crosby	N63790-03-0057 N93185-54-0224 N97499-34-0031 N93184-54-0168 N97498-33-0074	N/A N/A N/A N/A N/A	N/A N/A N/A N/A	1980 N/A N/A N/A N/A	Replaced Replacement Replaced Replacement	Yes, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1

- 7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-00-0057 was refurbished and modified (upgraded) to Serial No N63790-03-0057 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The work was performed in accordance with NWS Technologies, LLC VR and NR programs as follows:
  - 1) Disassembled the relief valve to perform the required work.
  - 2) Removed existing disc insert Serial No N93185-54-0224 from the relief valve.
  - 3) Installed replacement (modified) disc insert Serial No N97499-34-0031 in the relief valve.
  - 4) Removed existing nozzle Serial No N93184-54-0168 from the relief valve.
  - 5) Installed replacement (modified) nozzle Serial No N97498-33-0074 (Pre Mod Serial No N93184-33-0074) in the relief valve.
  - 6) Performed VT-3 visual examination on the exposed surfaces of the existing study for the relief valve inlet joint. VT-3 visual examination results acceptable for eight (8) study. Four (4) study were missing.
  - 7) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) studs.
  - 8) Performed VT-3 visual examination on the existing nuts for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) nuts.
  - 9) Reassembled the relief valve.
  - 10) Installed four (4) replacement studs for the relief valve inlet joint.
  - 11) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the body to bonnet joint. No evidence of leakage during the pressure test.
  - 12) Tested the relief valve at set pressure of 1195 PSIG. Test results acceptable.

#### NOTES -

- 1) Nozzle Serial No N93184-33-0074 was previously modified (upgraded) to Serial No N97498-33-0074 by Energy Northwest in accordance with ASME Section XI Plan No 2-1669.
- 2) Energy Northwest performed VT-1 visual examination on four (4) replacement studs for the relief valve inlet joint. VT-1 visual examination results acceptable.



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

Tests Conducte	ed: Hydrostatic  Pneumatic Test Pressure: 10 Psig Component Design Pressure:		Operating Pressure Other N  Test Temperature: 79° F  Temperature: 575° F
eam Relief Valve (M ain Steam Relief Val	e attached NVR-1 Code Data Report "Re ISRV), Serial No N63790-03-0057 (Pre M Ive (MSRV), Serial No N63790-00-0057 (	port Of Repair And Re lod Serial No N63790 Post Mod Serial No N	eplacement Of Nuclear Pressure Relief Devices" for -00-0057), 2) See attached NV-1 Code Data Report (63790-03-0057), 3) Component design pressure of 1 at pressure and rated temperature respectively.
	CERTIFICA	ATE OF COMPL	IANCE
to the rules of Type Code Sy Certificate Of	of the statements made in this Of the ASME Code, Section XI.  Important Not Applicable Authorization No.: Not Applicable te: Not Applicable	wner's Report ar	e correct and this replacement conforms
Prepared By	Kuldip Singh - Program Lead Engineer	Signed By	Kuldip Singh - Program Lead Engineer (PLE)
Date	- श्रीप्छ	Date	8[( 00
Johnston, Rhoo period 6 Cowner has pe in accordance By signing the implied, concertification.	tors and the State of Washington ie Island have inspected the control to 100 to	on issued by the in and employed by and employed by and state to the corrective measure or nor his employer shall be in and some corrective measure or ployer shall be in and some corrective measure on ployer shall be in and some corrective measure on ployer shall be in and some corrective measure on ployer shall be in and some corrective measure on ployer shall be in and some corrective measure on ployer shall be in a some corrective measure on the corrective measure of the corrective measure on the corrective measure of the corrective measure on the corrective measure of the corrective measure of the corrective measure of the corrective measure of the corrective measure of the corrective measure of the corrective measure of the corrective measure of the corrective measure of the corrective measure of the corrective measure of the corrective measure of the corrective measure of the corrective measure of the corrective measure of the corrective measure of the correct	National Board of Boiler and Pressure by Factory Mutual Insurance Company of led in this Owner's Report during the le best of my knowledge and belief, the lesures described in this Owner's Report
Ato	nspector's Signature	Commissions	National Board, State, and Endorsements
Date <u>\$-2</u>	14-00	-	

# OF NUCLEAR PRESSURE RELIEF DEVICES PLAN NO. 2-1702

1. Work perform	ned by: NWS Tec	chnologies, LL	.C	Purchas	e Order #	C31331 V	VRO # 008
2. Work perforn	ned for: Energy No	e Boulevard, Spa rthwest - Columbia	Generation	o Station	<del></del>	4 vid	120100
3/4. Owner - na	me, address and ide	entification of nucle	ar nower n		ergy North	west - Columi	bia Generating
<ol> <li>a: Repaired   b: Name of n c: Identifying</li> </ol>	pressure relief device nanufacturer: Cros nos. old	e: Main Steam	Safety Reli Co. 0057				
d: Construction	(type) on Code: ASME S	(mfr's S/r ec. III Div. 1		N/A (NB#) N/A (addenda		6 x 10 (size) 67 & 1711 de Cases(s))	1980 (yr.built) 1 (Code Class)
6. ASME Code S	Section XI applicable	for inservice inspe	ection:	198	•	N/A	N/A
7. ASME Code S	ection XI used for re	epairs, replacemen	its:	(editio	•	(addenda) N/A	(Code Case(s)) N/A
8. Construction C	Code used for repairs	s, replacements:		(editio	1	(addenda) N/A	(Code Case(s)) N/A
9. Design respon	sibilities: N/A			(editio	n)	(addenda)	(Code Case(s))
12. Remarks: See	f work (include name a	The second state of the second	or replacemen	r paris): Si	ee attach	ment 1.	
I, Cesar V	Sierra certify	CERTIFICATE	OF COMP	LIANCE			
report are correct conforms to Section National Board Ce National Board Ce	and the repair, modi on XI of the ASME Contificate of Authorizantificate of Authorizanti	tion No. 632 tion No. 81	nth of the phal Board II to use the to use the Authory	oressure renspection (e "VR" star e "NR" star e "NR" star e represent	lief device Code "VR np expire np expire	es described a " and "NR" rule s April 3, 2 April 9, 2	bove es. 003.
i, Carl R.		CERTIFICATE a valid commissio	n issued h	The Medie	nal Roar	i of Boiler and	D
or replacement des this repair, modifica Code and the Natio By signing this certi concerning this repair nor my employer sh	and certificate of corn Boiler Inspection icribed in this report ation or replacement and Board Inspection ificate, neither the unair, modification or reall be liable in any nected with this inspection.	nipetency issued by a large in a	of Hartford and state ed in accor NR" rules. employer reped in this is sonal injury	iction of  I. CT have that to the dance with	Tenne re inspect best of m Section warranty nermore, damage o	ssee and e ed the repair, y knowledge a XI of the of the expressed or neither the und or loss of any k	mployed modification and belief ASME
Date	Inspector	rs Signature				N# 2236	tion & co :

## FORM NVR-1 Attachment (1 of 1)

131 Venture Boulevard, Spartanburg,	Purchase Order # C SC 29301	C31331 WRO # 008
2. Work performed for: Energy Northwest - Columbia Generat		
3/4. Owner - name, address and identification of nuclear power Generating Station, North Power Plant Loop, Richland, WA	r plant: Energy Northwest 99352-0968	- Columbia
Valve S/N: N63790-03-0057		
The S/N for this valve was N63790-00-0057 T indicate the modification of the valve to a flexi-disc d	he two middle digits w lesign.	ere changed to
11. Description of work:		
The valve was disassembled. The nozzle was rendisc.	noved and returned to	site with the
WNP-2 machined the nozzle to the new flexi-disc	dimensions.	
NWS machined the Disc Ring per Crosby Instruction	ion Manual CVI No. 02	<u>'</u> -932-00.
Disc S/N: <u>N97499-34-0031</u> and		7498-33-0074
were installed in the valve.	(pre m	nod s/n N93184-33-0074)
Both disc and nozzle were polished by NWS prior	to installation	
	to installation.	•
Other parts replaced during the repair include:		
Disc Holder Spiral Pins (2): MC 54407794 Eductor Gasket: MC 56230461		
17.1.0		
Inlet Studs (4): H/C: N B7 KMY		
After reassembly, the valve set-pressure was certificated transfer was persentable and the set-pressure was certificated to the set-pressure was certificated t	ied using steam as the	lift medium
Seat tightness was acceptable post-certification.	or deling oldern as the	int medium.
<i>[ [ ]</i>	1	
Date (repair organization) NWS Technologies, LLC (authorized for	Sterrel	Manager, QA
(repair organization) (authorized rep	nesentative)	(title)
Date Inspector's Signature		N# 2236
opostor a digitature	Commissions (NB (incl endors	ements), jurisdiction.& no.)

Caldin Austs

## CROSBY

Additionation Roll Rutton

# CROSBY VALVE & GAGE COMPANY WRENTHAM, MASS PLAN NO.2-170

, , , ,

FORM NV-1 FOR SAFETY AND SAFETY RELIEF V/LVES
As Required by the Provisions of the ASME Code Rules

Judip Sup 5 7/20/00

## DATA REPORT Safety and Safety Relief Valves

1.	Manufactured By Crosby Val	ve & Ga	age Company, 41	Kendr	ick St	Wrentham	MA DODGE	
			Name will vool	28				
	Model No. HB-65-BP-FN Ord	er No.	N94275 Cor	itract	Date 4/2	4/79 Nati	onal Board	No. N/A
2.	General E Manufactured For San Jose,	lectr:	ic Company. ]	175 Cu	rtner A	venue.,	•	
			and Address		0;	der No	203-A	1480
3.	Owner Washington Public	Power	Supply Syst	em, R	ichland	, Washin	ton 99352	2
			Name and Addre	88				
4.	Location of Plant Hanford	keser	vation, Rich	land,	Washing	ton 993	52	_
5.	Valve IdentificationMPL #B	22-F01	13 Serial No.N6	3790-	00-0057	Drawing E	0 DC-4-	62700 D
	Type Safety Relief							
	Safety, Safety Relief,	Pilot.	Orifice	Size	K Pipe	Size	inlet 6 0	utlet 10
	Power Actuated			• 1		er - Luch	in Franch	rest ach
6.	Set Pressure (psig)	1195	5	_	1 6751	•	5750	F
	900 105		B 1.44.0.			Rated Te	aperature	· · · · · · · · · · · · · · · · · · ·
	Stamped Capacity 899,185		e 3 20verpr	essure	Blo	wdown (psi	g) 2 % to	
	Hydrostatic Test (psig) Inle	t_ 2	2370	Outlet	1100	psig (As:	sembled Variation (Variation)	
Pr	essure Retaining Pieces			(Appli	cable to	Valves for	r Closed Sy	stems Only)
-	essure wergining rieces							
	Bar Stock & Forgings		Serial No. Identification		•	Materia:	l Specifica	tion
a.	Par Stock & Forgings		racutility 100			Includin	R Type or G	rade
	Body		N93183-35-0	076		ASTM A	105-71 Gr. A105 Gr. 1	II
	Bonnet					ASTM A	105-71 Gr.	TT
	FORETROKKAZKÄNÄR		N93407-35-0	039		ASME 'S	A105 Gr.	II
٥.			W02305 0/ 6					
	Experiences Disc Insert		N93185-34-0	089		ASME S	A637 Gr. 7	718
	Nozzle		<b>N93184-33-</b> 0	061		ASME S	A182 Gr. 1	
	Dies en an average of one							310
	Disc Holder*K55484-35-008	3	*N89714-34-0			AMS 560		
	Spring Washers K62858-35-00	39	K62856-25-0 K62857-35-0	060		ASME S	105-71 Gr. Al05 Gr. :	· II II
	Adjusting Bolt		N93410-33-0	064	<del></del>		A193 Gr. 1	
	•							
	SpindlePoint K62873-35-00		*N89720-34-0			ASME S	564-71 Type	630
_	SpringK52858-35-0039		*N89722-0015			ASTM A	304-66 Gr.	. 4161 H
d.	Bolting Spindle Ball CONTRACTOR 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	***********					X0038	0090
e.	<b>必能設定式第二下K62873-35-0</b> (	57	N93213-0057			Stelli		
	Thrust Bearing Adapter		<b>N93409-32-0</b>	059		ASME S	A193 Gr.	B6
	Bonnet Stud (BW5,	117)	N93207-0681	thru	0692	ASTM A	193-71 Gr A193 Gr	B7 B7
	Bonnet Stud Nut	(J87)	N93210-0901	thru	0912	ASME S	A194 Gr.	2H
	Inlet Stud	(BW6)	N93216-0683	thru	0694		193-71 Gr	
	Inlet Stud Nut	(BW8)	N93218-0687			ASTM A	194-7; Gr A194 Gr.	2H
	THTEF SEAR WAF	,=	1127570_00\	LIITU	סאס	ADME S	A194 Gr.	2H

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

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 //-5-80 Signed Crosby Valve & Gage Co. by C. G. Catarrank
(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 Bovd P. Brooks
PE State California Reg. No. 13655
Stress report certified by W.D. Greenlaw
PE State Massachusetts Reg. No. 14784
Cignature 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, 1960 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 1960.
Signed Commissions MASS 1266 (Inspector) (Nat'l. Bd., State, Prov. and No.)

<sup>\*</sup>Arkwright-Boston Manufacturers Mutual Insurance Company - Mutual Boiler & Machinery Div.

Date: 07/19/00

Sheet: 1 of 1

**Unit:** Not Applicable



## 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: NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301
  - (b) Repair Organization P.O. No, Job No, etc.: C31331
  - (c) Type Code Symbol Stamp: NWS Technologies, LLC, VR And NR
  - (d) Certificate Of Authorization No.: NWS Technologies, LLC, VR No 632 And NR No 81
  - (e) Expiration Date: NWS Technologies, LLC, VR April 03, 2003 And NR April 09, 2003
- 4. Identification Of System: Main Steam (MS) 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
Spere Valve Disc Insert Disc Insert Nozzle Nozzle	Crosby Crosby Crosby Crosby Crosby	N63790-03-0061 N93185-56-0238 N97499-32-0015 N93184-50-0150 N97498-33-0068	N/A N/A N/A N/A	N/A N/A N/A N/A N/A	1980 N/A N/A N/A N/A	Replaced Replacement Replaced Replacement	Yes, Code Class I No, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1

- 7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-00-0061 was refurbished and modified (upgraded) to Serial No N63790-03-0061 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The work was performed in accordance with NWS Technologies, LLC VR and NR programs as follows:
  - 1) Disassembled the relief valve to perform the required work.
  - 2) Removed existing disc insert Serial No N93185-56-0238 from the relief valve.
  - 3) Installed replacement (modified) disc insert Serial No N97499-32-0015 in the relief valve.
  - 4) Removed existing nozzle Serial No N93184-50-0150 from the relief valve.
  - 5) Installed replacement (modified) nozzle Serial No N97498-33-0068 (Pre Mod Serial No N93184-33-0068) in the relief valve.
  - 6) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve inlet joint. VT-3 visual examination results acceptable for eleven (11) studs. One (1) stud was missing.
  - 7) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve body to bonnet joint, VT-3 visual examination results acceptable for all twelve (12) studs.
  - 8) Performed VT-3 visual examination on the existing nuts for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) nuts.
  - 9) Reassembled the relief valve.
  - 10) Installed one (1) replacement stud for the relief valve inlet joint.
  - 11) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the body to bonnet joint. No evidence of leakage during the pressure test.
  - 12) Tested the relief valve at set pressure of 1205 PSIG. Test results acceptable.

#### NOTES -

- 1) Nozzle Serial No N93184-33-0068 was previously modified (upgraded) to Serial No N97498-33-0068 by Energy Northwest in accordance with ASME Section XI Plan No 2-1669.
- 2) Energy Northwest performed VT-1 visual examination on one (1) replacement stud for the relief valve inlet joint. VT-1 visual examination results acceptable.

PLAN No 2-1703

# **EMERGY**NORTHWEST

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

Tests Conducted	l: Hydrostatic Pneu Test Pressure: 10 Psig Component Design Pres	7	Operating Pressure Other  Test Temperature: 82° F  Temperature: 575° F
am Relief Valve (MS in Steam Relief Valve	RV), Serial No N63790-03-0061 (MSRV), Serial No N63790-00-	(Pre Mod Serial No N63790- -0061 (Post Mod Serial No N	eplacement Of Nuclear Pressure Relief Devices" fo -00-0061), 2) See attached NV-1 Code Data Repo 63790-03-0061), 3) Component design pressure of the pressure and rated temperature respectively.
	CERT	TIFICATE OF COMPL	IANCE
to the rules of to Type Code Sym Certificate Of A Expiration Date Prepared By	he ASME Code, Section ) ibol Stamp: Not Applicable uthorization No.: Not Applic	XI. cable Signed By	Kuldip Singh - Program Lead Engineer (PLE)
	CERTIFICA	ATE OF INSERVICE IN	NSPECTION
Vessel Inspector Johnston, Rhode period 6-5-6 Owner has period in accordance w By signing this implied, concert Furthermore, ne	rs and the State of Washi Island have inspected the 20 to E-24-0 ormed examinations and with the requirements of t certificate neither the ins ning the examinations an wither the inspector nor h	ington and employed be components described and state to the laken corrective measure the ASME Code, Section for his employed corrective measure its employer shall be li	National Board of Boiler and Pressure by Factory Mutual Insurance Company of ed in this Owner's Report during the e best of my knowledge and belief, the sures described in this Owner's Report on XI. Ver makes any warranty, expressed or a described in this Owner's Report. If iable in any manner for any personal reconnected with this inspection.
•	ector's Signature	Commissions	National Board, State, and Endorsements
Date <u>8-24</u>	-00	<del></del>	

# OF NUCLEAR PRESSURE RELIEF DEVICES PLAN No. 2-1703

1. Work performed by:	NWS Technolo			rchase Order	r# C31331 V	VRO # 008
	131 Venture Bouley	/ard, Spartanbu	rg, SC 29	301	Alud	Claus de
2. Work performed for:	Energy Northwest -	Columbia Gene	rating Sta	ition		عاصار
3/4. Owner - name, add Station, North Powe	ress and identification repair and repair and repa	on of nuclear pov	ver plant: 968	Energy No	rthwest - Columb	oia Generating
5. a: Repaired pressure	relief device: Ma	ain Steam Safety	Relief Va	alve		
b: Name of manufact		& Gage Co.				<del></del>
c: Identifying nos.	old s/n: N6	3790-00-0061	· · · · · · · · · · · · · · · · · · ·	·		
HB-65-BP-F	N new s/n: N	63790-03-0061	N/A	steam	6 x 10	1980
(type)		(mfr's S/N)	(NB#	(service	(size)	(yr.built)
d: Construction Code			<u>'1                                    </u>	N/A 1	1567 & 1711	1
	(name/section/divisi	, , , , , , , , , , , , , , , , , , , ,	•	addenda) ((	Code Cases(s))	(Code Class)
6. ASME Code Section 2	(I applicable for inse	rvice inspection:		1989	N/A	N/A
7 ASME Code Section )	/l used for remains	_		(edition)	(addenda)	(Code Case(s))
7. ASME Code Section >	d used for repairs, re	≱placements:		1989	N/A	N/A
8. Construction Code use	ed for renairs, rentac	omonto.		(edition)	(addenda)	(Code Case(s))
o. Jonatiacaon Code asi	su for repairs, replac	ements:		1971	N/A	N/A
O Design in the state	A1/A			(edition)	(addenda)	(Code Case(s))
9. Design responsibilities	:: <u>N/A</u>					
10. Opening pressure:		AUA 45				
Set-pressure adjustm	<del>-</del>	NWS Technolog		using	steam	
11. Description of work (	include name and identify	ing number of replac	cement part	s): See atta	chment 1.	
12. Remarks: See attach	ment 1.				<del></del>	
	CED	TIEICATE OF C	OMBLIAN	VOE.		
CERTIFICATE OF COMPLIANCE  Cesar V. Sierra certify that to the best of my knowledge and belief the etatements and in the						
I, <u>Cesar V. Sierra</u> 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 Ro	ard Inche	suie reliei dev	vices described a	above
National Board Certificate	of Authorization No.	632 to u	se the "\/	R" stamp evo	vic and live rul pires <u>April</u> 3, 2	es.
National Board Certificate	of Authorization No.		se the "N	Ry stamp exp	rires April 9, 2	
r linka-	echnologies, LLC				April 9, 2	.003.
	epair Organization		ast	torgy	<u>Mana</u>	iger, QA
				presentative		Title
Carl D. Enca		TIFICATE OF IN				
Carl R. Enos	noiding a valid	commission issu	ed by The	e National Bo	ard of Boiler and	Pressure
Vessel Inspectors and cer	tilicate of competend	y issued by the	jurisdictio	n of <u>Ten</u>	nessee and	employed
Dy Hartford Steam Boile or replacement described	in this report on	rance Co. of Ha	ertford, C7	have insp	ected the repair,	modification
		/19/00 and	state that	to the best o	f my knowledge	and belief,
his repair, modification or	replacement has be	en completed in	accordan	ce with Section	on XI of the of the	e ASME
Code and the National Boa	neither the undomi-	vk and "NR" n	ules.			
By signing this certificate, in	iciolei die undersigr Hification or replace	rea nor my empl	oyer mak	es any warra	nty, expressed o	r implied.
oncerning this repair, modern my employer shall be i	iable in any manager	for any passage in	i inis repo	π. Futhermor	re, neither the un	dersigned
or my employer shall be i	with this inspection	ioi any personal	injury, pr	operty damag	ge or loss of any	kind
0/19/00	Lay K. 8	-11-0	NB # 84	460. A. N. I	TN# 2236	]
Dale	Inspector's Signat	ure	Commiss	ions iNB (incl er	ndorsements) jurisa	iction & poly

## FORM NVR-1 Attachment (1 of 1)

	<del></del>			
1. Work performed by:	NWS Technologie		Purchase Order s	# C31331 WRO # 008
2. Work performed for:	Energy Northwest - Col	umbia Genera	ting Station	
3/4. Owner - name, add Generating Station,	dress and identification o North Power Plant Loop	f nuclear powe , Richland, WA	er plant: Energy Nort \$99352-0968	hwest - Columbia
Valve S/N: N637	90-03-0061			
The S/N for this validicate the modificate	ve was <u>N63790-0</u> 0 ation of the valve to		Γhe two middle dig design.	its were changed to
disc. WNP-2 machined to him a chined to him a	sassembled. The no d the nozzle to the no he Disc Ring per Cro	ew flexi-disc	dimensions	
Disc S/N: NS	97499-32-0015	and	Nozzle S/N:	N97498-33-0068
were installed in t	he valve			(pre mod s/n N93184-33-0068)
	zle were polished b	y NWS prior	to installation.	
Other parts replace Disc Holder Spiral Eductor Gasket: Inlet Studs (1):	MC 56	include: 407794 230461 B7 HBW		
After reassembly, Seat tightness was	the valve set-pressus acceptable post-ce	re was certi ertification.	fied using steam a	s the lift medium.
	chnologies, LLC ganization)	(authorized)	Setron	Manager, QA (title)
6/19/00 (	Parl R. En	n/	NB # 8460, A, N,	,

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

Date

Inspector's Signature

MS-KV-5B

PLAN NO. 2-1703 Verlaup Zang L 7/20/100

	CROSBY VALVE WRENT	B GAGE COMPANY
	FOR SAFETY AND SAFETY RELIE the Provisions of the ASSE	
Safe	DATA REPORT ety and Safety Relief Value:	•
1. Manufactured By Croeby Valve	6 Gage Company, 43 Kendrick	St. Brentham MA 02093
Node) No. HB-65-3P-FN Order 1	, Name and Address	
General Ele	etric Company, 175 Curt	e 4/24/79 National Board No. N/A
T. MERCIACINITED FOR 321 JOSE C	A 95125	Oreer No. 205-A1986
3. Owner Washington Public Por		land Mashington 99357
4. Location of Plant Eanford Rese		hington 99352
		-nnkiDreving No. DS-4-63790 Pay C
Type <u>Safety Relief</u> Safety, Safety Relief, Pil Fewer Actumied	Orifice Size R	Pipe Size inlet 6 Outlet 10 inch
6. Set Pressure (paig) 1205		* 575° y
Stamped Capacity 906,621	0 3 Mereressure -	
Nydrostatic Test (psig) Inlet_		975 psig (Assembled Valve) 1100 psig (Rody Only)
	2370 Outlet   CAPPLICAD	1100 hate (Body Only) le to Calves for Closed Systems Only)
Pressure Retaining Pieces		. •
Bar Stock & Forgings	Serial No. Identification	Material Specification Including Type or Grade
	. •	ASTH AlOS-71 Gr. II
Body	<u> </u>	
		ASME SA105 Gt. II
Sonnet	N93407-35-0043	
. BETYENGERGERGERGER	N93407-35-0043	ASME SA105 Gt. II
		ASME SA105 Gt. II
. BEDIEFREDICEARRECTER	N93407-35-0043	ASME SAIOS GT. II ASTM A105-71 GT. 11 ASME SAIOS GT. 11
h. BOXENGERENE Disc Insert	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117	ASME SA105 Gt. II ASME A105-71 Gt. II ASME SA105 Gr. 715 ASME SA637 Gr. 715 ASME SA182 Gr. F316
BENEROUSERER Disc Insert Nozzle Disc Holder*K55184-35-0087	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117  K62856-35-0099	ASME SA105 GT. II ASME SA105 GT. II ASME SA105 GT. 711  ASME SA637 GT. 718  ASME SA182 GT. F316  AME 5662B
NORTHWEEN PROPERTY NORTHWEEN PROPERTY NORTHWEEN PROPERTY NORTH HOLDER*K55184-35-0087  Spring Mashers K62358-35-0043	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117  K62856-35-0099  3 K62857-35-0064	ASME SA105 GT. II ASME SA105 GT. II ASME SA105 GT. 711  ASME SA637 GT. 718  ASME SA182 GT. F316  AME S6622 ASME SA105 GT. TI
NORTHWENTER DISC Insert Nozale Disc Holder*K55184-35-0087 Spring Mashers K62858-35-0043 Adjusting Bolt	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117  K62856-35-0099  K62857-35-0064  N93410-33-0068	ASME SA105 GT. II ASME SA105 GT. II ASME SA105 GT. 715  ASME SA637 GT. 715  ASME SA122 GT. F316  AMS 56622  ASME SA105 GT. TI
NORTHWEETER Disc Insert Norsie Disc Holder*K55184-35-0087 Spring Mashers K62858-35-0043 Adjusting Solt Spindle Point K62873-35-006	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117  K62856-35-0099  3 K62857-35-0064  N93410-13-0068  51 *N89720-34-0072	ASME SA105 GT. II ASME SA105 GT. II ASME SA105 GT. 711  ASME SA637 GT. 718  ASME SA122 GT. F316  AME S6622 ASME SA105 GT. TI
NORTHWEETER Disc Insert Norshe Disc Holder*K55184-35-0087 Spring Washers K62858-35-0043 Adjusting Bolt Spindle Point K62873-35-006 c. Spring K62858-35-0043	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117  K62856-35-0099  3 K62857-35-0064  N93410-33-0068  51 *N89720-34-0072  *N89722-0019	ASME SA105 GT. II ASME SA105 GT. II ASME SA105 GT. 715  ASME SA637 GT. 715  ASME SA122 GT. F316  AMS 56622  ASME SA105 GT. TI
NORTH SOURCE STATE	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117  K62856-35-0099  3 K62857-35-0064  N93410-33-0068  51 *N89720-34-0072  *N89722-0019	ASME SA105 GT. II  ASME SA105 GT. II  ASME SA105 GT. 715  ASME SA637 GT. 715  ASME SA182 GT. 7316  ASME SA182 GT. F316  ASME SA183 GT. GT. 11  ASME SA105 GT. 11  ASME SA105 GT. 11  ASME SA105 GT. 11  ASME SA105 GT. 11  ASME SA105 GT. 11  ASME SA105 GT. 11
NORTHWEETER Disc Insert Norsle Disc Holder*K55184-35-0087 Spring Washers K62858-35-0043 Adjusting Bolt Springle Point K62873-35-006 5 Spring K62858-35-0043 4. Bolting Springle Ball EDERMEDORSER Springle Ball EDERMEDORSER	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117  K62856-35-0099  K62857-35-0064  N93410-33-0068  51 *N89720-34-0072  *N89722-0019	ASME SA105 Gt. II  ASME SA105 7 Gt. II  ASME SA105 7 Gt. II  ASME SA637 Gt. 718  ASME SA182 Gt. 7316  ASME SA182 Gt. F316  ASME SA105 Gt. II  ASME SA105 Gt. II  ASME SA105 Gt. II  ASME SA104 Gt. B6  ASTM A564-71 Type 630  ASTM A304-66 Gt. 4161E  Stellite #6
Notable  Disc Holder*K55184-35-0087  Spring Mashers K62858-35-0043  Adjusting Bolt  Sprindle Point K62873-35-0063  6. Soring K62858-35-0043  6. Notang  Sprindle Ball  Sprindle Ball  Spring K62873-35-0061  Thrust Bearing Adapter	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117  K62856-35-0099  3 K62857-35-0064  N93410-33-0068  61 *N89720-34-0072  *N89722-0019  N93213-0061  N93409-32-0063	ASME SA105 Gt. II  ASME SA105 Gt. II  ASME SA105 Gr. 715  ASME SA637 Gr. 716  ASME SA627 Gr. 7316  ASME SA628  ASME SA105 Gr. F316  ASME SA105 Gr. 11  ASME SA105 Gr. 11  ASME SA193 Gr. 86
h. BOXESUCCEASE Disc Insert  Notable  Disc Holder*K55184-35-0087  Spring Mashers K62858-35-0043  Adjusting Solt  Spindle Point K62873-35-0063  6. Notang  Spindle Ball  E. NORTH COMPAN  Thrust Bearing Adapter  Bonnet Stud (II7. B)	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117  K62856-35-0099  3 K62857-35-0064  N93410-33-0068  61 *N89720-34-0072  *N89722-0019  N93213-0061  N93409-32-0063  75) N93207-0729 thru 07	ASME SA105 Gt. II  ASME SA105 Gt. II  ASME SA105 Gr. 715  ASME SA105 Gr. 716  ASME SA182 Gr. F316  ASME SA182 Gr. F316  ASME SA185 Gr. F1  ASME SA105 Gr. 11  ASME SA105 Gr. 11  ASME SA105 Gr. 11  ASME SA105 Gr. 11  ASME SA105 Gr. 86  ASME SA103 Gr. 86  ASME SA103 Gr. 86  ASME SA103 Gr. 86  ASME SA103 Gr. 86  ASME SA103 Gr. 86  ASME SA103 Gr. 86
SOMESCOCKERSONDERS  NORTHWEETER Disc Insert  Norsele  Disc Holder*K55184-35-0087  Sering Washers K62858-35-0043  Adjusting Solt  Spindle Point K62873-35-0063  4. Northe Spindle Ball  S	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117  K62856-35-0099  3 K62857-35-0064  N93410-33-0068  61 *N89720-34-0072  *N89722-0019  N93213-0061  N93409-32-0063  75) N93207-0729 thru 07	ASME SA105 Gt. II  ASME SA105 71 Gt 11  ASME SA105 72 Gt 11  ASME SA105 72 Gt 11  ASME SA105 72 T15  ASME SA105 72 T16  ASME SA105 72 T11  ASME SA
b. BEXEMPERATURE DISC Insert Nozale Disc Holder*K55184-35-0087 Sering Mashers K62858-35-0043 Adjusting Solt Spindle Point K62873-35-006 c. Spring K62858-35-0043 d. Bolting Spindle Ball e. Schwicheren Thrust Bearing Adapter Bonnet Stud (II7. Bi Bonnet Stud Not (J8	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117  K62856-35-0099  3 K62857-35-0064  N93410-13-0068  61 *N89720-34-0072  *N89722-0019  1 N93213-0061  N93213-0061  N93213-0063  75) N93207-0729 thru 07	ASME SA105 GT. II  ASME SA105 GT. III  ASME SA105 GT. 715  ASME SA637 GT. 715  ASME SA627 GT. 716  ASME SA182 GT. F316  ASME SA182 GT. F316  ASME SA105 GT. TI  ASME SA105 GT. TI  ASME SA193 GT. B6
SOURCEMENT DISC Insert  Norsie  Disc Holder*K55184-35-0087  Spring Washers K62858-35-0043  Adjusting Bolt  Spindle Point K62873-35-0061  C. Spring K62858-35-0043  d. Bolting  Spindle Ball  K62873-35-0061  Thrust Bearing Adapter  Bonnet Stud (T17. Bi  Bonnet Stud (Si  Inlet Stud (Si	N93407-35-0043  K93185-34-0093  N93184-33-0065  *N89714-34-0117  K62856-35-0099  3 K62857-35-0064  N93410-33-0068  61 *N89720-34-0072  *N89722-0019  N93213-0061  N93409-32-0063  75) N93207-0729 thru 07	ASME SA105 GT. II  ASME SA105 GT. III  ASME SA105 GT. 715  ASME SA637 GT. 715  ASME SA627 GT. 716  ASME SA182 GT. F316  ASME SA182 GT. F316  ASME SA105 GT. TI  ASME SA105 GT. TI  ASME SA193 GT. B6

2



Valve originally buil: 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.

I	CERTIFICATE OF COMPLIANCE
	statements made in this report are correct and that this valve conforms attruction of the ASME Code for Nuclear Power Plant Components, Section Plant Components, Section Plant Components, Section Plant Components, Section Code Case No. 1567 & 1711 (Date)
Date 11-5-80	Signed Crosby Valve & Gage Co. by P. G. Courses (N Cartificate Holder)
Our ASME Certificate	e of Authorization No. 1878 to use the NV
symbol expires Septem	
<del></del>	CERTIFICATION OF DESIGN
Design information o	on file at Crosby Valve & Gage Company
	ort  Class 1 only   on file at Crosby Valve & Gage Company
43 Kendrick Street	et, Frentham, Massachusetts 02003
Design specification	as certified by Boyd P. Brooks
PE State Califor	TRIA Res. No. 17685
	fied byW.D. Greenlaw
PE State Massaci	huserts Reg. No. 14784
Signature not requi	rad - list name only.
	CERTIFICATE OF SHOP INSPECTION
Pressure Vessel Inspend and employed by Facto have inspected the pressure that to the constructed this pump	holding a valid commission issued by the National Board of Boiler and sectors and the State or Province of Massachusetts or Natural Systems* of Norwood, Massachusetts or valve, described in this Data Report on 12-7, 1960 see best of my knowledge and belief, the N Certificate Holder has up, or valve, in accordance with the ASME Code for Nuclear Power Plant
expressed or implied.	cificate, neither the Inspector nor his employer makes any varrant, it, concerning the equipment described in this Data Report. Further-sepector nor his employer shall be liable in any manner for any property damage or a loss of any kind arising from or connected with



#### 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

Sheet: 1 of 1 Unit: Not Applicable

2. Plant: Columbia Generating Station

Date: 07/19/00

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

- 3. (a) Work Performed By: NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301
  - (b) Repair Organization P.O. No, Job No, etc.: C31331
  - (c) Type Code Symbol Stamp: NWS Technologies, LLC, VR And NR
  - (d) Certificate Of Authorization No.: NWS Technologies, LLC, VR No 632 And NR No 81
  - (e) Expiration Date: NWS Technologies, LLC, VR April 03, 2003 And NR April 09, 2003
- 4. Identification Of System: Main Steam (MS) 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
Spere Valve Disc Insert Disc Insert Nozzle Nozzle	Crosby Crosby Crosby Crosby Crosby	N63790-03-0124 N83185-54-0223 , N87499-32-0019 N83184-41-0099 N97498-45-0115	N/A N/A N/A N/A N/A	NA NA NA NA NA NA NA NA NA NA NA NA NA N	1981 N/A N/A N/A N/A	Replaced Replacement Replaced Replacement	Yes, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1
		and the second s			٠		

- 7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-00-0124 was refurbished and modified (upgraded) to Serial No N63790-03-0124 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The work was performed in accordance with NWS Technologies, LLC VR and NR programs as follows:
  - 1) Disassembled the relief valve to perform the required work.
  - 2) Removed existing disc insert Serial No N93185-54-0223 from the relief valve.
  - 3) Installed replacement (modified) disc insert Serial No N97499-32-0019 in the relief valve.
  - 4) Removed existing nozzle Serial No N93184-41-0099 from the relief valve.
  - 5) Installed replacement (modified) nozzle Serial No N97498-45-0115 (Pre Mod Serial No N93184-45-0115) in the relief valve.
  - 6) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve inlet joint. VT-3 visual examination results acceptable for nine (9) studs. Three (3) studs were missing.
  - 7) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) studs.
  - 8) Performed VT-3 visual examination on the existing nuts for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) nuts.
  - 9) Reassembled the relief valve.
  - 10) Installed three (3) replacement studs for the relief valve inlet joint.
  - 11) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the body to bonnet joint. No evidence of leakage during the pressure test.
  - 12) Tested the relief valve at set pressure of 1185 PSIG. Test results acceptable.

#### NOTES -

- 1) Nozzle Serial No N93184-45-0115 was previously modified (upgraded) to Serial No N97498-45-0115 by Energy Northwest in accordance with ASME Section XI Plan No 2-1612.
- 2) Energy Northwest performed VT-1 visual examination on three (3) replacement studs for the relief valve inlet joint. VT-1 visual examination results acceptable.

PLAN No 2-1704

## **EMERGY**NORTHWEST

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

8 Tests Conducted: Hydrostatic Pneumatic Non Test Pressure: 10 Psig Component Design Pressure: 1185 Psig	ninal Operating Pressure Other Mon Test Temperature: 82° F Temperature: 575° F
9. Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair Steam Relief Valve (MSRV), Serial No N63790-03-0124 (Pre Mod Serial No Main Steam Relief Valve (MSRV), Serial No N63790-00-0124 (Post Mod Seri Psig and design temperature of 575° F Is for the Main Steam Relief Valve (MSRV).	N63790-00-0124), 2) See attached NV-1 Code Data Report for al No N63790-03-0124), 3) Component design pressure of 1185
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CERTIFICATE OF CO	OMPLIANCE
We certify that the statements made in this Owner's Repto the rules of the ASME Code, Section XI.	port are correct and this replacement conforms
Type Code Symbol Stamp: Not Applicable Certificate Of Authorization No.: Not Applicable	
Expiration Date: Not Applicable	•
N 0. 001	10.00
Prepared By Lilais Sign	ned By Juloup Suph
Kuldip Singh - Program Lead Engineer (PLE)	Kuldip Singh - Program Lead Engineer (PLE)
DateDate	8/1/00
CERTIFICATE OF INSERV	ICE INSPECTION
I, the undersigned, holding a valid commission issued by Vessel Inspectors and the State of Washington and employ Johnston, Rhode Island have Inspected the components of period 6-5-00 to 8-24-00 and state Owner has performed examinations and taken corrective in accordance with the requirements of the ASME Code, By signing this certificate neither the Inspector nor his elimplied, concerning the examinations and corrective mer Furthermore, neither the Inspector nor his employer shall injury or property damage or a loss of any kind arising the state of the Inspector and the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall injury or property damage or a loss of any kind arising the Inspector nor his employer shall be a loss of any kind arising the Inspector nor his employer shall be a loss of any kind arising the loss of any kind arising the los	byed by Factory Mutual Insurance Company of escribed in this Owner's Report during the e to the best of my knowledge and belief, the e measures described in this Owner's Report Section XI. Employer makes any warranty, expressed or easures described in this Owner's Report. This is a liable in any manner for any personal
15 Committee	SSIONS 7416 W/7416 E ES  National Board, State, and Endorsements
Date 8-24-00	

#### FURINI NVK-1 KEPORT OF REPAIR I REPLACEMENT OF NUCLEAR PRESSURE RELIEF DEVICES PLAN NO. 2-1704 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: N63790-00-0124 HB-65-BP-FN new s/n: N63790-03-0124 N/A steam 6 x 10 1981 (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) (Code Case(s)) (addenda) 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 certify that to the best of my knowledge and belief the statements made in this Cesar V. Sierra 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. **NWS Technologies, LLC** Manager, QA Date Repair Organization Authorized representative Title CERTIFICATE OF INSPECTION holding a valid commission issued by The National Board of Boiler and Pressure Carl R. Enos 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. Futhermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind

Date Coul R. Excer

ansing from or connected with this inspection.

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 Tech 131 Venture	nnologies, LLC Boulevard, Spartanburg	Purchase Order	#C31331 WRO # 008	_
2. Work performed for: Energy North				•
3/4. Owner - name, address and iden Generating Station, North Power I	itification of nuclear power	er plant: Energy Nor A 99352-0968	thwest - Columbia	
Valve S/N: <b>N63790-03-0124</b>				=
The S/N for this valve wasN indicate the modification of the	63790-00-0124 valve to a flexi-disc	The two middle dig design.	gits were changed to	
11. Description of work: The valve was disassembled disc. WNP-2 machined the nozzle NWS machined the Disc Ring Disc S/N: N97499-32-00	to the new flexi-disc g per Crosby Instruc	: dimensions	No. 02-932-00. N97498-45-0115	
were installed in the valve. Both disc and nozzle were po	olished by NWS prior	to installation.	(pre mod s/n N93184-45-0115)	
Other parts replaced during the Disc Holder Spiral Pins (2): Eductor Gasket: Inlet Studs (3):	he repair include: MC 54407794 MC 56230461 H/C: <u>N</u> B7 KMY			
After reassembly, the valve se Seat tightness was acceptable	et-pressure was certi e post-certification.	fied using steam a	as the lift medium.	
NWS Technologies, L (repair organization)  6/19/00 Date  NWS Technologies, L  (repair organization)  Inspector's Signal	(authorized re	NB # 8460, A, N,		
mopecial a digital	arai C	Commissions (NB (inc	d endorsements), jurisdiction,& no.)	



#### CROSBY VALVE & GAGE COMPANY

WRENTHAM, MASS PLAN No. 2-1704

Rulaip Same!

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 S	St., Wrentham, MA 02093
Model No. HB-65-BP-FN Order	No. N94281 Contract Date	4/24/79 National Board No. N/A
General	Electric Company, 175 Cur	tner Ave.,
2. Manufactured For San Jose	2. CA 95125 Name and Address	Order No. 205-AJ986
3. Owner Washington Public F	ower Supply System, Richl	land, Washington 99352
Tanfina	Name and Address	
4. Location of Plant Hanford	Reservation, Richland, Wa	ashington 99352
5. Valve Identification MPL #B22	-F013 Serial No. <u>N63790-00-0</u>	0124 Drawing No. DS-A-63790 Rev.
Type Safety Relief		Pipe Size Inlet_ 6 Outlet 10
Safety, Safety Relief, P Power Actuated	ilot, Inch	Inch Inch Inch
6. Set Pressure (psig)	1185	5750 F
	750 2	Rated Temperature
Stamped Capacity 891,		Blowdown (psig) 2% to 11%
Hydrostatic Test (psig) Inlet	2370 Outlet 1	975 psig (Assembled Valve) L100 psig (Body Only)
Pressure Retaining Pieces	(Applicable	e to Valves for Closed Systems Only
	Serial No.	Material Specification
Bar Stock & Forgings	Identification	Including Type or Grade
	V02102 2/ 0007	ASTM A105-71 Gr. II
Body	<u>N93183-36-0087</u>	ASME SA105 Gr. II ASTM A105-71 Gr. II
Bonnet	N93407-36-0098	ASME SAIOS Gr. II
b. Benchmannenthan		
Suppression Disc Insert	N93185-37-0156	ASME SA637 Gr. 718
Nozzle	N93184-33-0072	ASME SA182 Gr. F316
Disc Holder K55484-31-0005	N89714-31-0008	AMS 5662B
Spring Washers V62050 26 AC	K62856-36-0116	ASME SA105 Gr. II
Spring Washers K62858-36-00		
Adjusting Bolt	<u>N93410-33-0072</u>	ASME SA193 Gr. B6
Spindle Point K62873-37-03	136 N89720-43-0157	ASTM A564-71 Type 630 ASME SA564 Type 630
c. Spring K62858-36-0081	NX2689-0126	ASTM A304-66 Gr. 4161H
d. Bolting		
e. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	36 N93213-0203	Stoody #6
Thrust Bearing Adapter	N93409-32-0065	ASME SA193 Gr. B6
	719) N93207-1522 thru 1533	
	87) N93210-1033 thru 1044	ASME SA194 Gr. 2H
	721) N93216-1455 thru 1466	
		ASTM A194-71 Gr. 2H
	722) N93218-1389 thru 1400	
Adjusting Bolt Button	N93411-33-0094	ASME SATOR C- PK

- 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.  N63790-00-0184
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 1/-5-80 Signed Crosby Valve & Gage Co. by C-G. Case No. (N Certificate Holder)  Our ASME Certificate of Authorization No. 1878 to use the NV
symbol expires -September 30, 1983 (Date)
CONTRACTOR OF PROTON
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 Boyd P. Brooks  Res. No. 13655
PE State California Reg. No. 13655  Stress report certified by 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
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
Signed Commissions MASS 126 F (Inspector) (Nat'l. Bd., State, Prov. and No.)

<sup>\*</sup>Arkwright-Boston Manufacturers Mutual Insurance Company - Mutual Boiler & Machinery Div.

Date: 07/20/00

Sheet: 1 of 1

**Unit:** Not Applicable



## 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: NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301

(b) Repair Organization P.O. No, Job No, etc.: C31331

(c) Type Code Symbol Stamp: NWS Technologies, LLC, VR And NR

(d) Certificate Of Authorization No.: NWS Technologies, LLC, VR No 632 And NR No 81

(e) Expiration Date: NWS Technologies, LLC, VR - April 03, 2003 And NR - April 09, 2003

4. Identification Of System: Main Steam (MS) 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
Spare Valve Disc Insert Disc Insert Nozzie Nozzie	Crosby Crosby Crosby Crosby Crosby	N63790-03-0136 N93185-56-0242 N97499-32-0017 N93184-51-0153 N97498-44-0107	N/A N/A N/A N/A N/A	NA NA NA NA NA NA NA NA NA NA NA NA NA N	1973 N/A N/A N/A N/A	Replaced Replacement Replaced Replacement	Yes, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1
***************************************			•				

- 7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-00-0136 was refurbished and modified (upgraded) to Serial No N63790-03-0136 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The work was performed in accordance with NWS Technologies, LLC VR and NR programs as follows:
  - 1) Disassembled the relief valve to perform the required work.
  - 2) Removed existing disc insert Serial No N93185-56-0242 from the relief valve.
  - 3) Installed replacement (modified) disc insert Serial No N97499-32-0017 in the relief valve.
  - 4) Removed existing nozzle Serial No N93184-51-0153 from the relief valve.
  - 5) Installed replacement (modified) nozzle Serial No N97498-44-0107 (Pre Mod Serial No N93184-44-0107) in the relief valve.
  - 6) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve inlet joint. VT-3 visual examination results acceptable for nine (9) studs. Three (3) studs were missing.
  - 7) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) studs.
  - 8) Performed VT-3 visual examination on the existing nuts for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) nuts.
  - 9) Reassembled the relief valve.
  - 10) Installed three (3) replacement studs for the relief valve inlet joint.
  - 11) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the body to bonnet joint. No evidence of leakage during the pressure test.
  - 12) Tested the relief valve at set pressure of 1205 PSiG. Test results acceptable.

#### NOTES -

- 1) Nozzle Serial No N93184-44-0107 was previously modified (upgraded) to Serial No N97498-44-0107 by Energy Northwest in accordance with ASME Section XI Plan No 2-1669.
- 2) Energy Northwest performed VT-1 visual examination on three (3) replacement studs for the relief valve inlet joint. VT-1 visual examination results acceptable.

## **EMERGY**NORTHWEST

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

8 Tests Conducted: Hydrostatic Pneumatic Test Pressure: 10 Psig Component Design Pressure:	Test Temperature: 82° F
Steam Relief Valve (MSRV), Serial No N63790-03-0136 (Pre Mo Nuclear Components And Systems in Nuclear Power Plants" Ce N56000-02-0043 to Serial No N63790-00-0136, 3) See attached	ort Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Mair id Serial No N63790-00-0136), 2) See attached "Repair And Replacement To rtification Report (QC 292A) documenting modification (upgrade) of Serial No NV-1 (Pre - Modification) Code Data Report for Main Steam Relief Valve sure of 1205 Psig and design temperature of 575 <sup>0</sup> F is for the Main Steam tively.
CERTIFICA	TE OF COMPLIANCE
We certify that the statements made in this On 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 - Program Lead Engineer (F. Date	Signed By Kuldip Singh - Program Lead Engineer (PLE)  Date
CERTIFICATE O	F INSERVICE INSPECTION
Vessel Inspectors and the State of Washington Johnston, Rhode Island have Inspected the comperiod  Owner has performed examinations and taken In accordance with the requirements of the AS By signing this certificate neither the Inspecto Implied, concerning the examinations and cor Furthermore, neither the Inspector nor his em	n issued by the National Board of Boiler and Pressure and employed by Factory Mutual Insurance Company of ponents described in this Owner's Report during the and state to the best of my knowledge and belief, the accorrective measures described in this Owner's Report SME Code, Section XI.  For nor his employer makes any warranty, expressed or prective measures described in this Owner's Report. Sployer shall be liable in any manner for any personal ad arising from or connected with this inspection.
15 Front	Commissions 7486W/7486 II
Inspector's Signature  Date 8-24-00	National Board, State, and Endorsements
Date 8-24-00	_
	İ

# OF NUCLEAR PRESSURE RELIEF DEVICES PLAN NO. 2-1705

1. Work performed by:	NWS Technologies, L 131 Venture Boulevard, Spa	LC	Purchase Or	der# C31331	WRO # 008
2. Work performed for:	Energy Northwest - Columbi	a Generating	29301 Station	Que	Lip Suips
3/4. Owner - name, add	dress and identification of nucler Plant Loop, Richland, WA 9	ear nower nia		Northwest - Colun	ଥାଏ ଚ୍ଚ nbia Generating
5. a: Repaired pressure	e relief device: Main Steam	Safety Relief	Valve		
<ul><li>b: Name of manufact</li><li>c: Identifying nos.</li></ul>	turer: Crosby Valve & Gage	Co.			
HB-65-BP-	old s/n: N63790-00- FN new s/n: N63790-0:				1973
(type)	(mfr's S		V/A ste		
d: Construction Code	e: ASME Sec. III Div. 1	1971	N/A	ice) (size) 1567 & 1711	(yr.built)
<b>0</b> 400 -	(name/section/division)	(edition)	(addenda)	(Code Cases(s))	(Code Class)
6. ASME Code Section	XI applicable for inservice insp	ection:	1989	N/A	N/A
7. ASME Code Section	XI used for repairs, replaceme	. 4	(edition)	(addenda)	(Code Case(s))
	to used for repairs, replaceme	nts:	1989	N/A	N/A
8. Construction Code us	ed for repairs, replacements:	•	(edition) 1971	(addenda) N/A	(Code Case(s)) N/A
			(edition)	(addenda)	(Code Case(s))
9. Design responsibilities		· ·			<b>\-</b>
10. Opening pressure:					<u>.</u>
Set-pressure adjustr		hnologies, LL		ng steam	
11. Description of work (	include name and identifying number	of replacement r	oarts): See at	tachment 1.	•
12. Remarks: See attach	ment 1.				
I. Cesar V Sierra	CERTIFICATE	OF COMPLI	ANCE		
	certify that to the best of	my knowledg	e and belief t	he statements ma	de in this
conforms to Section XI of	repair, modification or replace the ASME Code and the Nation of Authorization No.				
		to use the	"VR" stamp e		
National Board Certificate	of Authorization No. 81	to use the	"NR" stamp e	xpires April 3, April 9,	
	chnologies, LLC	Vésas d	Eccal		<del></del>
Date - R	epair Organization		representative	<u>wan</u>	ager, QA
0-45	CERTIFICATE	OF INSPECT	TION		
Vessel Inspectors and con	holding a valid commissi	on issued by 7	The National I	Board of Boiler an	d Pressure
by Hartford Steam Bolle					
or replacement described	in this report on 4/19/00 replacement has been complete.	and state th	CT have in	spected the repair	, modification
			ar to the best ance with Sec	or my knowledge	and belief,
COncerning this renair more	neither the undersigned nor my	employer ma	akes any wan	ranty, expressed o	or implied,
nor my employer shall be li	diffication or replacement described in any manner for any per	ided in this re	port. Futherm	ore, neither the u	ndersigned
arising from or connected v	IC! A!!A DE	raonai injury, į	property dam	age or loss of any	kind
6/19/00					
	PADR Q	/ AID #	8460, A, N,	I TN# 2236	ļ

#### FORM NVR-1 Attachment (1 of 1)

			monnent (1 01 1)	
1. Work performe	NWS Tech 131 Venture E	nologies, LLC Boulevard, Spartanbu	Purchase Order rg, SC 29301	#C31331 WRO # 008
2. Work performed	for: Energy Northy	vest - Columbia Gene	rating Station	
3/4. Owner - name Generating Sta	e, address and ident tion, North Power P	ification of nuclear por lant Loop, Richland, V	wer plant: Energy Non VA 99352-0968	thwest - Columbia
Valve S/N: N	63790-03-0136			
The S/N for this indicate the mo	valve was N6	3790-00-0136 raive to a flexi-disc	The two middle dig design.	gits were changed to
	s disassembled.		emoved and returne	ed to site with the
WNP-2 mach NWS machin Disc S/N:	ined the nozzle ted the Disc Ring N97499-32-00	to the new flexi-dis per Crosby Instru 17 and	sc dimensions. oction Manual CVI N Nozzle S/N:	o. 02-932-00. <b>N97498-44-010</b> 7
were installed Both disc and	in the valve. nozzle were pol	ished by NWS prid	•	(pre mod s/n N93184-44-0107)
Other parts re Disc Holder S Eductor Gaske Inlet Studs (3)	et:	e repair include: MC 54407794 MC 56230461 H/C: <u>N</u> B7 KMY	<u>-</u>	
After reassemb Seat tightness	oly, the valve set was acceptable	-pressure was cer post-certification.	tified using steam a	s the lift medium.
6/19/00 NWS	Technologies, LL	c Par	1/2/	
	air organization)		representative)	Manager, QA (title)
0/19/00	Carl	R. Em	NB # 8460, A, N, I	•
Date	Inspector's Signati	ure	Commissions (NR (incl	

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

#### CROSBY

### CROSBY VALVE & GAGE COMPANY WRENTHAM, MA

PLAN No. 2-1005

Q.C.-292, REV.A SHEET 1 OF 2

Quaip Sungs

REPAIR AND REPLACEMENT 3/20/00
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS

	WEIGHT TEACH
Work performed by <u>Crosby Valve &amp; Gage Company 43 Kendrick St. Wrentham. MA 020 (Name and Address)</u> (Repair organization's P.O. No., Job No., etc.). <u>NV4000020</u>	
2. Owner WASHINGTON PUBLIC POWER RICHLAND.WA 99352-0968 (Name and Address)	<b>新</b> 第二十二
3. Name and Identification of Nuclear Power Plant HANFORD #2	
4. Address of Nuclear Power Plant_RICHLAND .WA	Standards on a service of the servic
5. a. Identifying Nos. N63790-00-0136 — (Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) b. Identification of component repaired or replacement component — c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY	1973 (Year Built)
6. Tests conducted: Hydrostatic (X) Pneumatic ( ) Design Pressure ( ) Pressure2370.0	0 psi
8. Applicable Section(s) III of ASME Code, 19 <u>71</u> Edition  Addenda NO Code Case —	ar an angun
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	10 km + 5 10 km + 5
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	2/23/24
	2/23/74

Q.C.-292, REV. A SHEET 2 OF 2

Certificate Holder's Serial No. N63790-00-0136

#### 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 Cause Signed CA Cong Mariage 24 Act 199

(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 <u>Massachusetts</u> and employed by <u>Factory Mutual</u> of <u>Norwood, Massachusetts</u> have inspected the repair or replacement described in this report on <u>Fe b 25</u>, 1991 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 employe 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 2/25 1999.

Signed // Commissions //4 / /55 (Inspector) Commissions //4 / /55 (Nat'l. Bd., State, Prov. and No.)

#### PLAN NO. 2-1705

Durant	Swp	2
		_

WPPSS S/N	WPPSS Set	Bailly S/N	Balliv Set	1
N63790-00-0134	1175	N56000-01-0037	1175	
N63790-00-0135	1205	N56000-01-0099	1130	
N63790-00-0136	1205	N56000-02-0043	I1205 /	
N63790-00-0137	1195	N56000-02-0042	1195	
N63790-00-0138	1185	N56000-01-0038	1175	
N63790-00-0139	1165	N56000-01-0100	1130	

PLAN NO. 2 1005 Buddy Eng

#### CROSBY

#### CROSBY VALVE & GAGE COMPANY

WRENTHAM, MASS PLAN NO.2-1705 Qualp Supb

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

Q.C.-44 7/20/00

#### DATA REPORT Safety and Safety Relief Valves

		The same of the sa
1. Manufactured By Crosby Valve	& Gage Co., 43 Ke	ndrick St., Wrentham. Mass. 02093
	veme sug Yddie	
Model No. HB-65-BP-FN	Order No. N=105	286 Contract Date 6/28/71
General Ele 2. Manufactured For San Jose, (	ectric Company	Contract Date 6/28/71
2. Manufactured For San Jose, (	alifornia	Order No205-AD148
	Name and Address	Order No0148
3. Owner Northern Indiana Pu	blic Service Co. F	Bailly Generating Station Muclear I.
4. Location of Plant Baileytown,	Indiana	Baileytown, Indiana
4. Location of Plant	IIMIBIIA	
5. Valve Identification MPL #B-22-	F013 came w N56000-	02-0043 Drawing No. H-56000 Rev. C
The second secon	2013 Serial No. 1130000-	02-0043 Drawing No. H-56000 Rev. C
Type Safety Relief	Orifica Si	ze_R_ Pipe Size Inlet_6_ Outlet_10
Safety Safety Relief . Pilot. Pow	er Actuated	Inch Inch Inch Inch
6. Set Pressure (PSIG) 1205		inch inch inch inch
The state of the s	manufacture of the control of the co	575° F
906250		series rembetsfills
Stamped Capacity	Lbs. Hr3 :: Ov	verpressure Blowdown wasto 57.
The state of the second	and the control of th	en de la companya de la companya de mangana de de displación de destrucción de de
Hydrostatic Test (PSIG) [nlet	2370	Complete Valve 825
	4 × 7 × 1	
<ol><li>The material, design, construction an</li></ol>	d workmanship comply with a	ASME Code, Section III.
-n+		*
XXXX Edition	19/1	Addenda Date Summer 1972
Pressure Containing or Pressure Reta	ining Components	
	Carried Ma	
a XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	Serial No. Identification	Material Specification
	• • • • • • • • • • • • • • • • • • • •	Including Type or Grade
Body	N89711-32-0025	ASTM A-105-71 Gr. II ASME SA-105 Gr. II
Sonne XXXXX	N89717-32-0019	ASTM A-105-71 Gr. II ASME SA-105 Gr. II
b. Bar Stock and Forgings		
: 1	N8077 E 21 0000	
SOMOXXXXX Disc Insert	N89715-31-0029	ASTM A-461-65 Type 630
Nozzie	N89713-32-0027	ASTM A-182-71 F316 ASME SA-182 F316
Dian	***************************************	
Disc Holder Top	N89714-32-0043 N89724-32-0046	_AMS_5662_B
Spring Washers Bottom	N89723-31-0002	ASIM A-105-/1 Gr. II ASME SA-105 Gr. II
Adiusting WWWW 2-1+	<u>189726-34-0047</u>	ASTM A-193-71 Gr R6
Adjusting No. Bolt		ASME SA-193 Gr. 36
Spindle Point	<u> </u>	ASTM A-564-72 Type 630
		.1996



Serial No. or

Material Specification

	Identification	Including Type or Grade	
c. Spring	NX2689-0048	ASTM A-304-66 Gr. 4161H	
d. Bolting			
e. MANYOZXAGONACON MANYOMANANA	x		
Inlet Stud	N89727-0505 thru 0516	ASTM A-193-71 Gr. B7 ASME SA-193 Gr. B7	
Inlet Stud Nut	N89728-0509 thru 0520	ASTM A-194-71 Cl. 2H ASME SA-194 Cl. 2H	
Bonnet Stud	N89718-0509 thru 0520	ASTM A-193-/1 Gr. B/ ASME SA-193 Gr. B7	
Bonnet Stud Nut	N89719-0511 thru 0522	ASTM A-194-71 C1. 2H ASME SA-194 C1. 2H	
OTHER PARTS			
Spindle Ball	N89721-0035	Stellite 6	
BARS & FORGINGS			
Thrust Bearing Adapter	N89725-32-0032	ASTM A-193-71 Gr B6 ASME SA-193 Gr. B6	
We certify that the statements made in this report are correct.  Date 10-3/1973 Signed Crosby Valve & Gage Co. By A Almager  Manufacturer QA Manager			
Certificate of Authorization No3	81 expires November	r 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.

Mutual Boiler & Machinery Insurance Co.\*, Waltham. Mass. \_\_\_ and employed by Mass \_\_\_ have 19.77 have inspected the equipment described in this Data Report on Container of 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. - 19 <u>197</u>3 - Commissions N.B. 60.65 170:5. 1090 (inspector) National Board, State, Province 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: 08/01/00 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: NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301
  - (b) Repair Organization P.O. No, Job No, etc.: C31331
- (c) Type Code Symbol Stamp: NWS Technologies, LLC, VR And NR
- (d) Certificate Of Authorization No.: NWS Technologies, LLC, VR No 632 And NR No 81
- (e) Expiration Date: NWS Technologies, LLC, VR April 03, 2003 And NR April 09, 2003
- 4. Identification Of System: Main Steam (MS) 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,
- 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 Valve Disc Insert Disc Insert Nozzie Nozzie	Crosby Crosby Crosby Crosby Crosby	N63790-03-0137 N93185-56-0243 N97499-32-0013 N93184-51-0157 N97498-33-0070	N/A N/A N/A N/A	NA NA NA NA NA	1973 NA NA NA NA	Replaced Replacement Replaced Replacement	Yes, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1

- 7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-00-0137 was refurbished and modified (upgraded) to Serial No N63790-03-0137 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The work was performed in accordance with NWS Technologies, LLC VR and NR programs as follows:
  - 1) Disassembled the relief valve to perform the required work.
  - 2) Removed existing disc insert Serial No N93185-56-0243 from the relief valve.
  - 3) Installed replacement (modified) disc insert Serial No N97499-32-0013 in the relief valve.
  - 4) Removed existing nozzle Serial No N93184-51-0157 from the relief valve.
  - 5) Installed replacement (modified) nozzle Serial No N97498-33-0070 (Pre Mod Serial No N93184-33-0070) in the relief valve.
  - 6) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve inlet joint. VT-3 visual examination results acceptable for ten (10) studs. One (1) stuck/damaged stud was removed. One (1) stud was missing.
  - 7) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) studs.
  - 8) Performed VT-3 visual examination on the existing nuts for the relief valve body to bonnet joint, VT-3 visual examination results acceptable for all twelve (12) nuts. The second of the sec

The art of the state of the state of

- 9) Reassembled the relief valve.
- 10) Installed two (2) replacement studs for the relief valve inlet joint.
- 11) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the body to bonnet joint. No evidence of leakage during the pressure test.
- 12) Tested the relief valve at set pressure of 1195 PSIG. Test results acceptable.

#### **NOTES** -

- 1) Nozzle Serial No N93184-33-0070 was previously modified (upgraded) to Serial No N97498-33-0070 by Energy Northwest in accordance with ASME Section XI Plan No 2-1669.
- 2) Energy Northwest performed VT-1 visual examination on two (2) replacement studs for the relief valve inlet joint. VT-1 visual examination results acceptable.

PLAN No 2-1706

#### **EMERGY**NORTHWEST

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

ests Conducted: Hydrostatic Pneumatic Frest Pressure: 10 Psig Component Design Pressure: 11	X Nominal Operating Pressure Other N Test Temperature: 85° F Temperature: 575° F
ım Relief Valve (MSRV), Serial No N63790-03-0137 (Pre Mod lear Components And Systems In Nuclear Power Plants" Cert 000-02-0042 to Serial No N63790-00-0137, 3) See attached N	rt Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Serial No N63790-00-0137), 2) See attached "Repair And Replacement ification Report (QC 292A) documenting modification (upgrade) of Seria IV-1 (Pre - Modification) Code Data Report for Main Steam Relief Valve ure of 1195 Psig and design temperature of 575° F is for the Main Steam vely.
CERTIFICAT	TE OF COMPLIANCE
We certify that the statements made in this Own 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	ner's Report are correct and this replacement conforms
Kukdip Singh - Program Lead Engineer (PL	Signed By Kuldip Singh - Program Lead Engineer (PLE)  Date SUD
l, the undersigned, holding a valid commission .	INSERVICE INSPECTION  Issued by the National Board of Boiler and Pressure
conniston, Rhode Island have inspected the composition of the Composition of the Composition of the Composition of the ASM in accordance with the requirements of the ASM is signing this certificate neither the Inspector implied, concerning the examinations and correferthermore, neither the Inspector nor his employer.	and employed by Factory Mutual Insurance Company of conents described in this Owner's Report during the and state to the best of my knowledge and belief, the corrective measures described in this Owner's Report ME Code, Section XI.  In nor his employer makes any warranty, expressed or ective measures described in this Owner's Report.  In any manner for any personal arising from or connected with this inspection.
Inspector's Signature	Commissions 7454 W/7476 I II  National Board, State, and Endorsements
Date 8-95-00	

# FORM NVR-1 REPORT OF REPAIR REPLACEMENT OF NUCLEAR PRESSURE RELIEF DEVICES DI ANNO 2-1706

1 10/0-10				runn	VIO. 7-10
1. Work performed by:		<b>LC</b>	Purchase Or	der# C31331 v	WRO # 008
	131 Venture Boulevard, Sp.	artanburg, So	C 29301		Loup Swip 5
<ol><li>Work performed for:</li></ol>	Energy Northwest - Columbi	ia Generating	Station	44	871100
3/4. Owner - name, add	lress and identification of nuc er Plant Loop, Richland, WA 9	ear nower siz		Northwest - Colum	
5. a: Repaired pressure	relief device: Main Steam	Safety Relie	f Valve		
c: Identifying nos.	turer: Crosby Valve & Gage	Co.			
HB-65-BP-F	old s/n: N63790-00- N new s/n: N63790-0:				1973
(type)	(mir's S		N/A stea		
d: Construction Code	: ASME Sec. III Div. 1	1971	NB#) (serv N/A	. , , , , , , , , , , , , , , , , , , ,	(yr.built)
	(name/section/division)	(edition)	(addenda)	1567 & 1711 (Code Cases(s))	1 (2-1-2)
6. ASME Code Section )	(I applicable for inservice insp	action:			(Code Class)
			1989	N/A	N/A
7. ASME Code Section >	(I used for repairs, replaceme	ents:	(edition) 1989	(addenda) N/A	(Code Case(s))
			(edition)	(addenda)	N/A
o. Construction Code use	ed for repairs, replacements:		1971	N/A	(Code Case(s)) N/A
•			(edition)	(addenda)	(Code Case(s))
<ol><li>Design responsibilities</li></ol>	: <u>N/A</u>	· · · · · · · · · · · · · · · · · · ·		•	(0000 0000(0))
10. Opening pressure: 1	195 psig				
Set-pressure adjustm	• • • • • • • • • • • • • • • • • • • •	hnologies, LL	C		
11. Description of work #	nclude name and identifying number			ng <u>steam</u>	
	reads name and tentifying number	of replacement	parts): See at	tachment 1.	
12. Remarks: See attachr		, ,		-	
THE THE RESERVE TO THE PARTY OF	nent 1.				
l. Casar V Siarra	CERTIFICATE	OF COMPL	IANCE		
TOOL Y. CIEIIA	certify that to the best of	S	T.	he statements mad	de in this
Conforms to Section 11 of	repair, modification or replace the ASME Code and the Nation	emtn of the pr	ressure relief d	evices described	above
National Board Certificate	of A. Alberta Code City till Mate	niigi boata ili:	spection Code	"VR" and "NR" ru	les.
National Board Certificate		w use me	"VK" stamp ex	xpires April 3, 2	2003.
/ //0/00		//	"MR" stamp e	xpires April 9, 2	2003.
// // INTO 161	chnologies, LLC  pair Organization	LESANT		Mana	ager, QA
1 2 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3			d representative		Title
Carl R. Enos	CERTIFICATE	OF INSPEC	TION		
essel inspectors and cert	holding a valid commissi ificate of competency issued	on issued by	The National E	Board of Boiler and	i Pressure
y Hartford Steam Boiler	inspection & Insurance Co	by the jurisdic	tion of Te	nnessee and	employed
r replacement described in	Inspection & Insurance Con this report on 6/19/20	or Hartford,	CT have ins	spected the repair,	modification
nis repair, modification or r	eplacement has been comple	ted in second	nat to the best	of my knowledge	and belief,
y signing this certificate, h	either the undersianed nor m	v omniouses	akes anv war	anhi evassoool	. <b>.</b> :
y signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, or my employer shall be liable in any manner for any personal injury, property damage or loss of any kind					
	The second of th	rsonal injury.	property dam:	are, riciule; tile UN 30e or loss of sou	kind
	ith this inspection.			any	NI FU
19/00	and R. Com	✓ NB ±	8460, A, N, I	TN# 2220	
Date	Inspector's Signature			TN# 2236 endorsements), jurisd	
			· · · · · · · · · · · · · · · · · · ·	, jui (50)	ILUON.OL ND.)

#### FORM NVR-1 Attachment (1 of 1)

1. Work performed by: <b>NWS Technologies, LLC</b> 131 Venture Boulevard, Spartant	Purchase Order # C31331 WRO # 008
2. Work performed for: Energy Northwest - Columbia Ger	
3/4. Owner - name, address and identification of nuclear partial Generating Station, North Power Plant Loop, Richland	ower plant: Energy Northwest - Columbia , WA 99352-0968
Valve S/N: N63790-03-0137	
The S/N for this valve was N63790-00-0137 indicate the modification of the valve to a flexi-di	The two middle digits were changed to sc design.
11. Description of work:  The valve was disassembled. The nozzle was disc.  WNP-2 machined the nozzle to the new flexi-on NWS machined the Disc Ring per Crosby Inst Disc S/N:  N97499-32-0013 and	disc dimensions. ruction Manual CVI No. 02-932-00.
	Nozzle S/N: N97498-33-0070 (pre mod s/n N93184-33-007C
were installed in the valve.  Both disc and nozzle were polished by NWS p	·
Other parts replaced during the repair include: Disc Holder Spiral Pins (2):  Eductor Gasket:  MC 54407794  MC 56230461  Inlet Studs (2):  H/C: N B7 HBW	
After reassembly, the valve set-pressure was c The valve failed the steam seat tightness test, v integrity and successfully seat tightness tested	NAS lacked and langed to seekers
Marker 1	10/11
Date (repair organization) NWS Technologies, LLC (authorize	ed representative)  Manager, QA (title)
6/19/00 Cal R. Encop	NB # 8460, A, N, I TN# 2236
Date Inspector's Signature	Commissions (NR (incl andomes-

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

# × S Ø

# CROSBY VALVE & GAGE COMPANY WRENTHAY MA

SHEET a.c.-292, 70.

TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANT REPAIR AND REPLACEMENT 455 4120/00

ø of ASME Code 19-71 Edition

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ASME SEC.XI.1980 EDITION WINTER 1980 ADDENDA Description of work (Use of additional sh N56000-02-0042 WAS MODIFIED TO N63790-00-01:

TORE THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES PART PART NO. MODIFIED TO PART NO. BODY N90118 N93183-41-0124 N93407-44-0055 N93407-44-0058

. . .

SPRING ASSY
SPRING ASSY
SPRING ASSY PART DISC INSERT N89715
THRUST BRG, ADAPT N89725 ADJ.BOLT ADJ.BOLT BUTT ADJ.BOLT MOZZIE K55466 PARIT NO. N89713 PART NO. N90118 N89717 N89717 K55465 N89724 N89723 N93184-51-0157 N93185-54-0231 N93185-54-0231 N93409-33-0007 K62856-44-0203 K62857-44-0203 N93410-32-0006 K62858-31-0001 N93411-34-0013 K63618-32-0006

Q.C.-292, REV. OF SHEET We certify that the statements made in this report are correct and all design, materia MOD. CERTIFICATE OF COMPLIANCE Certificate Holder's Serial No. 

# CERTIFICATE OF INSPECTION

1 15 Z

is been made or constructi

injury or property damage or a loss of any

a of the ASME Cod

PACTORY Mutual System

Commissions /ve//5

Mart'l. Bd., State, Prov. and No.

#### PLAN No. 2-1706 Pularp Euph Malor

WPPSS S/N	WPPSS Set	Bailly S/N	Bailly Set	
N63790-00-0134	1175	N56000-01-0037	1175	
N63790-00-0135	1205	N56000-01-0099	1130	
N63790-00-0136	1205	N56000-02-0043	1205	
N63790-00-0137	1195	N56000-02-0042	1195 7	
N63790-00-0138	1185	N56000-01-0038	1175	
N63790-00-0139	1165	N56000-01-0100	1130	

#### PLBN NO. 2-1006

#### CROSBY

#### CROSBY

WRENTHAM, MASS

7/241

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

Q.C.-44A

CO M PAN

#### DATA REPORT Safety and Safety Relief Valves

1. Manufactured By Crosby 1	Nalve & Gage Co., 43 K	endrick St Wrentham, Mass. 02093
	Name and Addre	?\$\$
Model No. HB-65-BP-FN	Order NoN-10528	6 Contract Date 6/28/71
General	Liectric Company	
. Manufactured For San Jose	. California	Order No. 205-471/49
	Name and Address	Order No. 205-AD148
. Owner Northern Indiana	Public Service Co :	Bailly Generating Station Nuclear
	Name and Address	Baileytown, Indiana
Location of Plant Bailevto	wn. Indiana	
install and the second		
. Vaive Identification MPL #B-	22-F013 Serial No. N56000-	-02-0042 Drawing No. H-56000 Rev. C
Type Safety Relie	fOnfice S	ize R Pipe Size - Inter 6 Outlet
SALERY SALERY RELIEF. PILLS	PINER ACIDZIAN	Inch Inch Inch
. Set Pressure (PSIG) 11	95	575° Rated Temperature
Stamped Capacity_ 898800	Lbs. Hr. : _3 = 7.0	verpressure Blowdown xxxxx 57
Sat. Steam		
Université Test / PCIC: Injet	2370	Complete Valve <u>825</u>
		Complete varve
Class L Ed	ition1971	Addenda DateSummer 1972
Pressure Commining or Pressure	Retaining Components	-
	Serial No.	Material Specification
LYNKAME Forgings	[dentification	including Type or Grade-
	390771 20 000/	ASTM A-105-71 Gr. II
Body	N89711-32-0024	والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع
Bonner	N89717-32-0018	ASTM A-105-71 Gr. II ASME SA-105 Gr. II
b. Bar Stock and Forgings	•	
XXIII	N89715-31-0034	ACTION A 127 CT TO TO
whitevers ness Tusein	783. 1777	ASTM A-461-65 Type 630 ASTM A-182-71 F316
Nozzie	<u> 189713-32-0031</u>	ASME SA-182 F316
Disc Holder	N89774-32-0042	AMS 5662 B
Spring Washers Bot	N89724-32-0042 N89723-31-0003-	ASTM A-105-71 Gr. II ASME SA-105 Gr. II
Adjusumg & Bolt	N89726-32-0012	ASTM A-193-71 Gr. B6
		ASME SA-193 GT. 36
Spindle Point	N89720-32-0034	- ASIM A-564-72 Type 630
		•



Serial No. or Material Specification Identification including Type or Grade c. Spring NX2689-0047 ASTM A-304-66 Gr. 4161H d. Boiting e. Other processors and accompany Inlet Stud N89727-0493 thru 0504 Inlet Stud Nut N89728-0497 thru 0508 Bonnet Stud N89718-0497 thru 0508 2H Bonnet Stud Nut :N89719-0499 thru 0510 OTHER PARTS Spindle Ball N89721-0034 BARS & FORGINGS 36 N89725-31-0009 We certify that the statements made in this report are correct. Date 10-31 19 73 Signed Crosby Valve & Gage Co. QA Manager

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331 expres November 9, 1974

Certificate of Authorization No. \_

To 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 Mittual Boiler & Machinery Insurance Co. \* Waltham Mass have inspected the equipment described in this Data Report on Company 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.

CERTIFICATE OF SHOP INSPECTION

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.

commenda or 5 1002 or 5th Kill Still	AFACTORY MUTUAL Group of Insurance Co.
1 - in - 11	"ractory mittal Group of insurance Co.
Date Octaber 11 19	<u>73                                     </u>
Amald Chance	- Commissions No. R. GC 45 Mass. 1676
· ([nspector)	National Board, State, Province and No.
	The source of the state of the

C.

3-3.7-

Date: 07/20/00

Unit: Not Applicable

Sheet: 1 of 1



#### 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: NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301
  - (b) Repair Organization P.O. No, Job No, etc.: C31331
  - (c) Type Code Symbol Stamp: NWS Technologies, LLC, VR And NR
  - (d) Certificate Of Authorization No.: NWS Technologies, LLC, VR No 832 And NR No 81
  - (e) Expiration Date: NWS Technologies, LLC, VR April 03, 2003 And NR April 09, 2003
- 4. Identification Of System: Main Steam (MS) 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
Spare Valve Disc Insert Disc Insert Nozzie Nozzie	Crosby Crosby Crosby Crosby Crosby	N63790-03-0140 N93185-52-0204 N97499-32-0016 N93184-53-0167 N97498-33-0072	N/A N/A N/A N/A N/A	NA NA NA NA NA	1994 N/A N/A N/A N/A	Replaced Replacement Replaced Replacement	Yes, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1 No, Code Class 1

- 7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-01-0140 was refurbished and modified (upgraded) to Serial No N63790-03-0140 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The work was performed in accordance with NWS Technologies, LLC VR and NR programs as follows:
  - 1) Disassembled the relief valve to perform the required work.
  - 2) Removed existing disc insert Serial No N93185-52-0204 from the relief valve.
  - 3) Installed replacement (modified) disc insert Serial No N97499-32-0016 in the relief valve.
  - 4) Removed existing nozzle Serial No N93184-53-0167 from the relief valve.
  - 5) Installed replacement (modified) nozzle Serial No N97498-33-0072 (Pre Mod Serial No N93184-33-0072) in the relief valve.
  - 6) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve inlet joint. VT-3 visual examination results acceptable for nine (9) studs. Three (3) studs were missing.
  - 7) Performed VT-3 visual examination on the exposed surfaces of the existing studs for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) studs.
  - 8) Performed VT-3 visual examination on the existing nuts for the relief valve body to bonnet joint. VT-3 visual examination results acceptable for all twelve (12) nuts.
  - 9) Reassembled the relief valve.
  - 10) Installed three (3) replacement studs for the relief valve inlet joint.
  - 11) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the body to bonnet joint. No evidence of leakage during the pressure test.
  - 12) Tested the relief valve at set pressure of 1165 PSIG. Test results acceptable.

#### **NOTES** -

- 1) Nozzle Serial No N93184-33-0072 was previously modified (upgraded) to Serial No N97498-33-0072 by Energy Northwest in accordance with ASME Section XI Plan No 2-1612.
- 2) Energy Northwest performed VT-1 visual examination on three (3) replacement studs for the relief valve inlet joint. VT-1 visual examination results acceptable.

#### **EMERGY**NORTHWEST

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

Tests Conducte	ed: Hydrostatic Pne Test Pressure: 10 Psig Component Design Pre	eumatic X Nominal Operating Pressure Other No Test Temperature: 87° F  essure: 1165 Psig Temperature: 575° F
sam Relief Valve (M Nr Steam Relief Val	SRV), Serial No N63790-03-014 ve (MSRV), Serial No N63790-0	eport "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for M 40 (Pre Mod Serial No N63790-01-0140), 2) See attached NV-1 Code Data Report to 01-0140 (Post Mod Serial No N63790-03-0140), 3) Component design pressure of 11 Steam Relief Valve (MSRV) set pressure and rated temperature respectively.
		The state of the s
	CER	RTIFICATE OF COMPLIANCE
to the rules of Type Code Sy Certificate Of Expiration Date	the ASME Code, Section mbol Stamp: Not Applicable Authorization No.: Not App	plicable
Prepared By _	Kuldip Singh - Program Lead E	Engineer (PLE)  Signed By  Kuldip Singh - Program Lead Engineer (PLE)  Date  Date
	CERTIFIC	CATE OF INSERVICE INSPECTION
Vessel Inspection, Rhod period 6 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	tors and the State of Was e Island have inspected the state of the sta	nmission issued by the National Board of Boiler and Pressure shington and employed by Factory Mutual Insurance Company of the components described in this Owner's Report during the and state to the best of my knowledge and belief, the ad taken corrective measures described in this Owner's Report of the ASME Code, Section XI.  Inspector nor his employer makes any warranty, expressed or and corrective measures described in this Owner's Report. This employer shall be liable in any manner for any personal any kind arising from or connected with this inspection.
17	spector's Signature	Commissions 7486 W/7486 E E/ National Board, State, and Endorsements
Date 8-2	5-00	<del></del>

# FORM NVR-1 REPORT OF REPAIR TO REPLACEMENT TO OF NUCLEAR PRESSURE RELIEF DEVICES PLAN No.2-1707

1. Work performed by:	MIN'S Tooks at				1000	10.27 101
From penormed by.		LLC	Purchas	se Order#	C31331	WRO # 008
2. Work performed for:	131 Venture Boulevard, S Energy Northwest - Colum	ppartanburg,	SC 29301		Luc	dip Eurob
3/4. Owner - name, add	ress and identification	ibia Generatir	ng Station			\$/1/00
Station, North Power	lress and identification of nuer Plant Loop, Richland, WA	uclear power p 199352-0968	plant: En	ergy North	vest - Colum	bia Generating
<ol><li>a: Repaired pressure</li></ol>	relief device Main Sta	0-6:				
D: Name of manufact	Crosby Valve & Gad	re Co.				
c. identifying nos.	old s/n: N63790-0	1-0140				· · · · · · · · · · · · · · · · · · ·
HB-BP-65-D	oF new s/n: N63790-	-03-0140	N/A	steam	6 x 10	4004
(type) d: Construction Code	(mfr's	S/N)	(NB#)	(service)	(size)	
d. Construction Code	TOO. III DIV.	1971	N/A	-	7 & 1711	(yr.built)
0.101	(name/section/division)	(edition)	(addend:		Cases(s))	(Code Class)
6. ASME Code Section >	(I applicable for inservice in	spection:	198		N/A	N/A
7. ASME Code Section X	I used for repairs, replacen		(editio	(n) (a	addenda)	(Code Case(s))
	i used for repairs, replacen	nents:	198		N/A	N/A
8. Construction Code use	ed for repairs, replacements		(editio	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	adderda)	(Code Case(s))
	- ver repaire, replacements	i.	197		N/A	N/A
9. Design responsibilities:	N/A	•	(editio	n) (a	iddenda)	(Code Case(s))
10. Opening pressure: 1						
Set-pressure adjustme						
		echnologies. L	.LC	using s	steam	
Description of work (in	nclude name and identifying numb	er of replacemen	it parts): Se	e attachm	ent 1	
					O. 1.	
12. Remarks: See attachn	nent 1.					
	CERTIFICAT	E OF COMP	IANCE			
Cesar V. Sierra	CEITIN That to the bear			ief the stat		
report are correct and the	repair, modification or replain he ASME Code and the Na	cemtn of the	Diessure rei	ief devices	ements mad	e in this
National Base Community	he ASME Code and the Na of Authorization No. 63:	tional Board I	nspection (	inch devices inde "VP" :	odescribed a	Dove
National Board Certificate	of Authorization No. 63:	2 to use the	e "VR" stan	nouc VI( ) In expires	illi Aki Diie C ClenΔ	es.
National Board Certificate of	of Authorization No. 81	to use the	e "NR" stan	Selida di	April 3, 2 April 9, 2	
6/19/00 NWS Tec	hnologies, LLC	Things	15		April 9, 2	003.
Date Rep	pair Organization	Authoriz	ed representa	<u> </u>	Mana	ger. QA
	CERTIFICAT	E OF INSPE		AIVE		Title
Carl R. Enos	HORITING 2 Valid committee					
Vessel Inspectors and certifiby Hartford Steam Boiles	holding a valid commiss	but the inside	Ine Nation	nai Board d	of Boiler and	Pressure
Transia orealli polici	Inspection & Insurance C	r by the jurisal	ction of	Tenness	ee and e	mployed
	11115 TEDOTION / //6 /			e inspected	the repair.	modification
this repair, modification or re	placement has been com-	and state	inat to the t	pest of my	knowledge a	and belief
Code and the National Board	d Inspection Code "VR" and	l'UR" rules	uance with	Section XI	of the of the	ASME
By signing this certificate, ne	ither the undersigned and	1417 (0165.				
concerning this repair, modifinor my employer shall be lial	ication or replacement desc	ribed in this r	enort Euro	varranty, e	expressed or	implied.
nor my employer shall be lial arising from or connected with	ole in any manner for any p	ersonal initing	oport. Futh	emore, ne	itner the und	tersigned
arising from or connected with	h this inspection.	· ····································	· hoperty d	amaye or	iuss of any k	ind
6/19/00 (B	2 ( R So.	, ND	40400	•••		
Date	Inspector's Signature		# 8460, A.		<del>2236</del>	
		Cumr	MB CURS CAR	unci endorse:	menter	

#### FORM NVR-1 Attachment (1 of 1)

i. Work performe	NWS Tech 131 Venture	nnologies, LLC Boulevard, Spartanburg,	Purchase Order #_ SC 29301	C31331 WRO # 008
2. Work performe	ed for: Energy North	west - Columbia Genera	ting Station	
3/4. Owner - nam Generating St	e, address and iden ation, North Power I	ntification of nuclear powe Plant Loop, Richland, WA	r plant Energy Northwo	est - Columbia
Valve S/N:	N63790-03-0140		,	
The S/N for thi indicate the mo		01 Ø 7/25/6 63790-98-0140 7 valve to a flexi-disc o	he two middle digits	were changed to
11. Description				
The valve ward disc.	as disassembled	l. The nozzle was rer	moved and returned	to site with the
WNP-2 mac	hined the nozzle	to the new flexi-disc	dimensions	
NWS machir Disc S/N:	ned the Disc Ring	g per Crosby Instruct	ion Manual CVI No.	02-932-00.
Disc 3/14.	N97499-32-0	016 and		97498-33-0072
were installe	d in the valve.	· ••	(pre	e mod s/n N93184-33-0072)
<b>—</b> 44 44				
Both disc and	d nozzle were po	lished by NWS prior	to installation.	•
		plished by NWS prior	to installation.	•
Other parts re	eplaced during ti	he repair include:	to installation.	
Other parts re	eplaced during to Spiral Pins (2):	·	to installation.	
Other parts re Disc Holder S	eplaced during to Spiral Pins (2): ket:	he repair include: MC 54407794	to installation.	
Other parts re Disc Holder S Eductor Gash	eplaced during to Spiral Pins (2): ket:	he repair include: MC 54407794 MC 56230461	to installation.	
Other parts re Disc Holder S Eductor Gask Inlet Studs (3	eplaced during to Spiral Pins (2): ket: ):	he repair include: MC 54407794 MC 56230461 H/C: <u>N</u> B7 GQH		
Other parts re Disc Holder S Eductor Gask Inlet Studs (3 After reasser The valve faile	eplaced during to Spiral Pins (2): ket: ): nbly, the valve seed the steam sea	he repair include:  MC 54407794  MC 56230461  H/C: <u>N</u> B7 GQH  et-pressure was certifat tightness test, was	fied using steam as t	he lift medium.
Other parts re Disc Holder S Eductor Gask Inlet Studs (3 After reasser The valve faile	eplaced during to Spiral Pins (2): ket: ): nbly, the valve seed the steam sea	he repair include: MC 54407794 MC 56230461 H/C: <u>N</u> B7 GQH	fied using steam as t	he lift medium. o restore seat
Other parts re Disc Holder S Eductor Gask Inlet Studs (3 After reasser The valve faile	eplaced during to Spiral Pins (2): ket: ): nbly, the valve seed the steam sea	he repair include:  MC 54407794  MC 56230461  H/C: <u>N</u> B7 GQH  et-pressure was certifat tightness test, was	fied using steam as t	he lift medium. o restore seat
Other parts re Disc Holder S Eductor Gask Inlet Studs (3 After reasserr The valve faile integrity and s	eplaced during to Spiral Pins (2): ket: ): nbly, the valve seed the steam sea	he repair include: MC 54407794 MC 56230461 H/C: N B7 GQH et-pressure was certifet tightness test, was a tightness tested on	fied using steam as t	o restore seat
Other parts red Disc Holder S Eductor Gask Inlet Studs (3 After reassers The valve faile integrity and s	eplaced during the Spiral Pins (2): (2): (2): (2): (3): (4): (4): (4): (4): (4): (4): (4): (4	he repair include: MC 54407794 MC 56230461 H/C: N B7 GQH et-pressure was certifet tightness test, was a tightness tested on	fied using steam as to jacked and lapped to steam.	o restore seat  Manager, QA
Other parts red Disc Holder S Eductor Gask Inlet Studs (3 After reassers The valve faile integrity and s	eplaced during the Spiral Pins (2): set:  The set is the set is the set is the steam set is the steam set is the set is t	he repair include: MC 54407794 MC 56230461 H/C: N B7 GQH et-pressure was certife tightness test, was a tightness tested on the lightness tested on the	fied using steam as to jacked and lapped to steam.	o restore seat

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

#### C R O S B Y

#### CROSBY VALVE & GAGE COMPANY Audiphu WRENTHAM, MA

Q.C.-44C-1

# FORM NV-1, FOR SAFETY AND SAFETY RELIEF VALVES

	<b>1 1</b>		ANDIVAL COURT ALLES					
3	As Required by the Provisions of the ASME Code Rules  DATA REPORT							
∄	Safety and Safety Relief Valves							
₹_	Suj	ely una Sajety Rettef	<u>vaives</u>					
14								
∄ '∙	Manufactured by Crosby Valve & Ga	ge Company 43 Kendrick St. d Address of N Certificate Ho	Wrentham, MA 02093	- Kg				
3	Model No.HB-65-BP Order No.	NV4000468 Common	older)					
<b>}</b> =			Date 24 JAN 1994 National Board No	**				
<b>]</b> 2.	Manufactured for WASHINGTON PUB	LIC POWER SUPPLY SYST	TEM RICHLAND.Worder No. 238136 C/N 0	2				
∄	(	Name and Address)						
∄,	Owner WASHINGTON PUBLIC	DOWED CURRY OVOTERS		;				
∄"	OWNER VVASHINGTON PUBLIC	POWER SUPPLY SYSTEM (Name and Address)		<u> </u>				
<b>}</b> =		(Maine and Address)	to the state of th					
∄4.	Location of Plant HANFORD # 2	12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Land the state of	35.				
<b>∄</b> 5.	Valve Identification <u>B22-F013</u>	Serial No. N6379	30-01-0140 Drawing No.DS-A-63790-1 R	REY				
3	Type MAIN STEAM	a course to see and the second of the second	The state of the s					
∄ .	Type MAIN STEAM (Safety, Safety Relief, Pilot, Power A	Orifice Size 4.532	0000					
<u>`</u> =	(Safety, Safety Reset, Phot, Power)	Actuated) (Inch)	(inch) (inch)	١				
<u> 4</u> 6.	Set Pressure 1165.0	58	The particular production of the second distributions and the second distributions and the second distributions are second distributions are second distributions.					
3		Rated To	emperature					
	Stamped Capacity 876878 LB./HR.SA	T.STM.@ 3 % Overpress	sure _ Blowdown (psig) 2 THRU 11	14 July 1				
3			The second secon					
	Hydrostatic Test (PSIG) Inlet 2370	Complete Valve	1100	**************************************				
	Hydrostatic Test (PSIG) Inlet 2370	Complete Valve						
7.	The material, design, construction and w	Complete Valve						
7.	The material, design, construction and w	Complete Valve vorkmanship comply with ASI	ME Code, Section III.					
7.	Hydrostatic Test (PSIG) Inlet 2370	Complete Valve vorkmanship comply with ASI						
7.	The material, design, construction and w	Complete Valve vorkmanship comply with ASI	ME Code, Section III.					
7.	The material, design, construction and was Class 1 Edition 1971, Addenda Da	Complete Valve vorkmanship comply with ASI ateNO, Case	ME Code, Section III. e No  Material Specification					
7.	The material, design, construction and we Class 1 Edition 1971, Addenda Da Castings	Complete Valve vorkmanship comply with ASI ateNO Case Serial No. Identification	ME Code, Section III.  e No  Material Specification Including Type or Grade					
7.	The material, design, construction and we Class 1 Edition 1971. Addenda Da Castings Body	Complete Valve vorkmanship comply with ASI ateNO Case Serial No. Identification  N93183-47-0130	ME Code, Section III.  e No  Material Specification Including Type or Grade  ASTM A105 GR.II					
8.	The material, design, construction and we Class 1 Edition 1971. Addenda Da Castings Body Bonnet	Complete Valve vorkmanship comply with ASI ateNO Case Serial No. Identification	ME Code, Section III.  e No  Material Specification Including Type or Grade					
7. a.	The material, design, construction and we Class 1 Edition 1971. Addenda Da Castings Body Bonnet Bar Stock & Forgings	Complete Valve vorkmanship comply with ASI ateNO Case Serial No. Identification  N93183-47-0130	ME Code, Section III.  e No  Material Specification Including Type or Grade  ASTM A105 GR.II					
8.	The material, design, construction and we Class_1_Edition_1971, Addenda Date Castings Body Bonnet Bar Stock & Forgings Support Rods	Complete Valve	ME Code, Section III.  e No  Material Specification Including Type or Grade					
a. b.	The material, design, construction and we Class 1 Edition 1971, Addenda Da Body Bonnet Bar Stock & Forgings Support Rods Nozzle	Complete Valve	ME Code, Section III.  e No  Material Specification Including Type or Grade ASTM A105 GR.IIASTM A105 GR.III					
a. b.	The material, design, construction and we Class_1_Edition_1971, Addenda Date Castings Body Bonnet Bar Stock & Forgings Support Rods	Complete Valve	ME Code, Section III.  e No  Material Specification Including Type or Grade  _ASTM A105 GR.II _ASTM A105 GR.II  _ASME SA182 GR.F316 _ASME SA637 GR.718					
a. b.	The material, design, construction and we Class 1 Edition 1971, Addenda Da Castings Body Bonnet Bar Stock & Forgings Support Rods Nozzle Disc	Complete Valve	ME Code, Section III.  e No  Material Specification Including Type or Grade  _ASTM A105 GR.II ASTM A105 GR.II  ASME SA182 GR.F316 ASME SA637 GR.718					
a. b.	The material, design, construction and we Class 1 Edition 1971, Addenda Da Body Bonnet Bar Stock & Forgings Support Rods Nozzle	Complete Valve	ME Code, Section III.  e No  Material Specification Including Type or Grade  _ASTM A105 GR.II _ASTM A105 GR.II  _ASME SA182 GR.F316 _ASME SA637 GR.718  _ASTM A105 GR.II					
a. b.	The material, design, construction and we Class_1Edition_1971. Addenda Date Castings Body Bonnet Bar Stock & Forgings Support Rods Nozzle Disc  Spring Washers Adjusting Bolt Spindle	Complete Valve	ME Code, Section III.  Material Specification Including Type or Grade  ASTM A105 GR.II  ASTM A105 GR.II  ASME SA182 GR.F316 ASME SA637 GR.718  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A564 TYPE 630					
a. b.	The material, design, construction and we Class_1_Edition_1971. Addenda Date Castings Body Bonnet Bar Stock & Forgings Support Rods Nozzle Disc Spring Washers Adjusting Bolt Spindle Spring	Complete Valve	ME Code, Section III.  e No  Material Specification Including Type or Grade  _ASTM A105 GR.II _ASTM A105 GR.II  _ASME SA182 GR.F316 _ASME SA637 GR.718  _ASTM A105 GR.II					
a. b.	The material, design, construction and we Class 1 Edition 1971. Addenda Date Castings  Body  Bonnet Bar Stock & Forgings  Support Rods  Nozzle  Disc  Spring Washers  Adjusting Bolt  Spring  Bolting	Complete Valve	ME Code, Section III.  Material Specification Including Type or Grade  ASTM A105 GR.II  ASTM A105 GR.II  ASME SA182 GR.F316 ASME SA637 GR.718  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A564 TYPE 630					
a. b.	The material, design, construction and we Class 1 Edition 1971. Addenda Date Castings  Body  Bonnet Bar Stock & Forgings  Support Rods  Nozzle  Disc  Spring Washers  Adjusting Bolt  Spring  Bolting  Other Pieces	Complete Valve	ME Code, Section III.  Material Specification Including Type or Grade  ASTM A105 GR.II ASTM A105 GR.II  ASME SA182 GR.F316 ASME SA637 GR.718  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A564 TYPE 630 ASTM A304 GR.4161 H					
b.	The material, design, construction and we Class_1_Edition_1971. Addenda Date Castings  Body  Bonnet Bar Stock & Forgings  Support Rods  Nozzle  Disc  Spring Washers  Adjusting Bolt  Spring  Bolting  Other Pieces  DISC HOLDER	Complete Valve vorkmanship comply with ASI  ate_NO Case  Serial No. Identification  N93183-47-0130 N93407-47-0058  N93184-53-0167 N93185-52-0204 N93186-41-0060 N93187-40-0007 N93410-33-0007 N96461-34-0015 NX2689-0138  N89714-42-0279	ME Code, Section III.  Material Specification Including Type or Grade  ASTM A105 GR.II ASTM A105 GR.II  ASME SA182 GR.F316 ASME SA637 GR.718  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A304 GR.4161 H  AMS5662B(INCONEL718)					
a. b.	The material, design, construction and we Class_1_Edition_1971, Addenda Date    Castings	Complete Valve vorkmanship comply with ASI  ate_NO Case  Serial No. Identification  N93183-47-0130 N93407-47-0058  N93184-53-0167 N93185-52-0204 N93185-52-0204 N93186-41-0060 N93187-40-0007 N93410-33-0007 N96461-34-0015 NX2689-0138  N89714-42-0279 N96460	ME Code, Section III.  Material Specification Including Type or Grade  ASTM A105 GR.II ASTM A105 GR.II  ASME SA182 GR.F316 ASME SA637 GR.718  ASME SA637 GR.718  ASTM A105 GR.II  ASME SA193 GR.B6 ASTM A564 TYPE 630 ASTM A304 GR.4161 H  AMS5662B(INCONEL718) ASTM A276 T440C					
a. b. c. d. e.	The material, design, construction and we Class_1Edition_1971. Addenda Date    Castings	Complete Valve vorkmanship comply with ASI  ate_NO Case  Serial No. Identification  N93183-47-0130 N93407-47-0058  N93184-53-0167 N93185-52-0204 N93186-41-0060 N93187-40-0007 N93410-33-0007 N96461-34-0015 NX2689-0138  N89714-42-0279 N96460 N93411-36-0015	ME Code, Section III.  Material Specification Including Type or Grade  ASTM A105 GR.II ASTM A105 GR.II ASTM A105 GR.II  ASME SA182 GR.F316 ASME SA637 GR.718  ASTM A105 GR.II ASME SA193 GR.B6 ASTM A564 TYPE 630 ASTM A304 GR.4161 H  AMS5662B(INCONEL718) ASTM A276 T440C ASME SA193 GR.B6					
a. b. c. d. e.	The material, design, construction and we Class_1_Edition_1971_, Addenda Date    Castings	Complete Valve vorkmanship comply with ASI  ate_NO Case  Serial No. Identification  N93183-47-0130 N93407-47-0058  N93184-53-0167 N93185-52-0204 N93185-52-0204 N93186-41-0060 N93187-40-0007 N93410-33-0007 N96461-34-0015 NX2689-0138  N89714-42-0279 N96460 N93411-36-0015 N93409-35-0012	ME Code, Section III.  Material Specification Including Type or Grade  ASTM A105 GR.II ASTM A105 GR.II  ASME SA182 GR.F316 ASME SA637 GR.718  ASME SA637 GR.718  ASTM A105 GR.II  ASME SA193 GR.B6 ASTM A304 GR.4161 H  AMS5662B(INCONEL718) ASTM A276 T440C ASME SA193 GR.B6 ASTM A193 GR.B6					
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a. b.	The material, design, construction and we Class 1 Edition 1971. Addenda Da Castings Body Bonnet Bar Stock & Forgings Support Rods Nozzle Disc Spring Washers	Complete Valve	ME Code, Section III.  e No  Material Specification Including Type or Grade  _ASTM A105 GR.II _ASTM A105 GR.II  _ASME SA182 GR.F316 _ASME SA637 GR.718  _ASTM A105 GR.II					
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a. b.	The material, design, construction and we Class_1_Edition_1971. Addenda Date Castings Body Bonnet Bar Stock & Forgings Support Rods Nozzle Disc  Spring Washers Adjusting Bolt	Complete Valve	ME Code, Section III.  Material Specification Including Type or Grade  ASTM A105 GR.II ASTM A105 GR.II  ASME SA182 GR.F316 ASME SA637 GR.718  ASTM A105 GR.II ASTM A105 GR.II					
a. b.	The material, design, construction and we Class_1Edition_1971. Addenda Date Castings Body Bonnet Bar Stock & Forgings Support Rods Nozzle Disc  Spring Washers Adjusting Bolt Spindle	Complete Valve	ME Code, Section III.  Material Specification Including Type or Grade  ASTM A105 GR.II  ASTM A105 GR.II  ASME SA182 GR.F316 ASME SA637 GR.718  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A564 TYPE 630					
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a. b. c. d. e.	The material, design, construction and we Class_1_Edition_1971_, Addenda Date Body Bonnet Bar Stock & Forgings Support Rods Nozzle Disc  Spring Washers Adjusting Bolt Spindle Spring Bolting Other Pieces DISC HOLDER SPINDLE BALL ADJ BOLT BUTTON THRUST BEARING ADAPTER BONNET STUD BONNET NUT	Complete Valve vorkmanship comply with ASP  ate_NO Case  Serial No. Identification  N93183-47-0130 N93407-47-0058  N93184-53-0167 N93185-52-0204 N93185-52-0204 N93186-41-0060 N93187-40-0007 N93410-33-0007 N96461-34-0015 NX2689-0138  N89714-42-0279 N96460 N93411-36-0015 N93409-35-0012 N93210 N93216	ME Code, Section III.  Material Specification Including Type or Grade  ASTM A105 GR.II  ASTM A105 GR.II  ASME SA182 GR.F316 ASME SA637 GR.718  ASTM A105 GR.II  ASTM A105 GR.II  ASTM A105 GR.II  ASME SA193 GR.B6 ASTM A564 TYPE 630 ASTM A304 GR.4161 H  AMS5662B(INCONEL718) ASTM A276 T440C ASME SA193 GR.B6 ASTM A193 GR.B6 ASTM A193 GR.B6 ASTM A193 GR.B6 ASTM A193 GR.B7 ASME SA194 CL.2H					
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We	certify	that the	statements :	made in this	s report are co	rrect.	•	4.	
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Date	27	May	74	SignedC	<u>Frosby Valve &amp;</u> Manufact	k Gage Compan	y by been	me of	a.
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#### 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 have inspected the equipment described in this Data Report on Mutual Insurance Company Ma - 27 , 19 57 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.

1.1.0.1.

**Factory Mutual System** 

Commissions

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

Date: 07/10/01

Sheet: 1 Of 1

Unit: Not Applicable



#### 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-4B MS-RV-4B	WPPSS * Crosby Crosby	B22-G001B-P1 N63790-00-0058 N63790-03-0137 ** (N63790-00-0137) **	N/A N/A N/A	N/A N/A N/A	1983 1980 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-4B. The replacement work was performed as follows:
  - 1) Removed existing relief valve Serial No N63790-00-0058 with set pressure of 1195 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 N63790-03-0137 with set pressure of 1195 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 N63790-03-0137 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 N63790-03-0137 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) \*\* The replacement relief valve Serial No N63790-00-0137 was previously modified (upgraded) to Serial No N63790-03-0137 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 2-1706.

PLAN No 2-1708

#### **EMERGY**NORTHWEST

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

Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other Test Pressure: 1022 Psig Test Temperature: 215° F Component Design Pressure: 1250 Psig Temperature: 575° F
D. Remarks: 1) See attached NVR-1 Code Data Report for replacement relief valve Serial No N63790-03-0137, 2) See attached "Repair and Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) for relief valve Serial No 163790-00-0137, 3) See attached NV-1 (Pre - Modification) Code Data Report for relief valve Serial No N56000-02-0042, 4) * The test ressure 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 - Program Lead Engineer (PLE)  Date  Date  7 10 01  Date
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 /-24-0/ to 7-24-0/ 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.
1 Commissions 7486w/7486 with the Inspector's Signature Commissions National Board, State, and Endorsements
Date 7-24-0/

# FORM NVR-1 REPORT OF REPAIR REPLACEMENT OF NUCLEAR PRESSURE RELIEF DEVICES PLAN No. 2-170 8

					10, 2-1 (00
1. Work performed by:			Purchase Ord		VRO # 008
2. Work performed for:	131 Venture Boulevard, Spar Energy Northwest - Columbia			Cul	dip Lives
	dress and identification of nuclea				7/(0/0)
Station, North Pow	er Plant Loop, Richland, WA 99	ar power plai 352-0968	nt: Energy N	lorthwest - Colum	bia Generating
5. a: Repaired pressur	e relief device: <u>Main Steam S</u> cturer: <u>Crosby</u> Valve & Gage C	Safety Relief	Vaive		
c: Identifying nos.	old s/n: N63790-00-0				60
HB-65-BP-			***		1973 10
(type)	(mfr's S/N		V/A stea		<del>1981</del>
d: Construction Code	e: ASME Sec. III Div. 1	" (r 1971	IB#) (servi N/A	. ,,	(yr.built)
	(name/section/division)	(edition)	(addenda)	1567 & 1711 (Code Cases(s))	(Code Class)
6. ASME Code Section	XI applicable for inservice inspe	ection:	1989	N/A	N/A
7 ACME Ondo Double			(edition)	(addenda)	(Code Case(s))
7. ASME Code Section	XI used for repairs, replacemen	ts:	1989	N/A	N/A
8. Construction Code us	sed for repairs, replacements:		(edition)	(addenda)	(Code Case(s))
	sed for repairs, replacements:		1971	N/A	N/A
9. Design responsibilitie	s: N/A		(edition)	(addenda)	(Code Case(s))
10. Opening pressure:	1105 poie			· · · · · · · · · · · · · · · · · · ·	
Set-pressure adjustr					
·		nologies, LL		ng <u>steam</u>	
11. Description of work	(include name and identifying number of	of replacement	parts): See at	tachment 1.	
12. Remarks: See attacl	nment 1.				
	CERTIFICATE	OF COMPL	ANCE		
I, Cesar V. Sierra	certify that to the best of	my knowled	re and holief	he statements ma	de in this
report are correct and the	e repair. Modification of feblace	min of the n	accura raliaf a	lasticae december 1	_+
comounts to Section VI o	IT the Admic Code and the Natio	nai Roami in	enaction Code	M/D" and HAID! -	ıles.
National Board Certificat	e of Authorization No. 632	to use the	"VR" stamp e	xpires April 3,	2003.
1/10/00	<del></del>	to use the	"MR" stamp e	xpires April 9,	2003.
/	echnologies, LLC	Esant	cerral	Man	ager, QA
/ Date	Repair Organization	Authorize	d representative	<del></del>	Title
	CERTIFICATE	OF INSPEC	TION		
Carl R. Enos	holding a valid commission	n issued by	The National I	Board of Boiler an	d Pressure
Vessel Inspectors and ce	entificate of competency issued b	ov the jurisdia	tion of Ta		employed
by Hartford Steam Boil	ler Inspection & Insurance Co	of Hartford,	CT have in	spected the repair	r. modification
or replacement described	in this report on 6/19/00	and state t	hat to the heef	of my knowledge	and ballet
riis repair, modification o	r replacement has been comple	ted in accord	lance with Sec	ction XI of the of ti	ne ASME
soce and the Maticual PC	pard inspection Code "VR" and '	'NR" rules			<u> </u>
by signing this certificate,	neither the undersigned nor my	employer n	akes any war	ranty, expressed	or implied,
repair, mig uns repair, mig	Dullication of replacement descr	lbed in this m	anort Euthern	ore neither the u	
irising from or connected	manie in any manner for any per	rsonal injury,	property dam	age or loss of any	/ kind
,, ,	with this inspection.				
6/19/00	Vail R. Gress	NB:	# 8460, A, N,	I TN# 2236	
Date	Inspector's Signature			l endorsements), juris	diction,& no.)

#### FORM NVR-1 Attachment (1 of 1)

1. Work performed by: NWS Technologial 131 Venture Boulevan	i <b>es, LLC</b> rd, Spartanburg	Purchase Order a	# C31331 WRO # 008
2. Work performed for: Energy Northwest - C	olumbia Genera	ating Station	
3/4. Owner - name, address and identification Generating Station, North Power Plant Loc	of nuclear powers, Richland, W	er plant: Energy Nort A 99352-0968	hwest - Columbia
Valve S/N: <u>N63790-03-0137</u>			
The S/N for this valve was N63790-indicate the modification of the valve to	00-0137 o a flexi-disc	The two middle dig design.	its were changed to
11. Description of work: The valve was disassembled. The r disc. WNP-2 machined the nozzle to the NWS machined the Disc Ring per C Disc S/N: N97499-32-0013	new flexi-disc	dimensions	
were installed in the		•	(pre mod s/n N93184-33-0070)
were installed in the valve.  Both disc and nozzle were polished	by NWS prio		
Other parts replaced during the repa Disc Holder Spiral Pins (2): MC 5 Eductor Gasket: MC 5			
After reassembly, the valve set-press The valve failed the steam seat tightre integrity and successfully seat tightne	iess test, was	Siacked and lanna	s the lift medium. d to restore seat
6/19/00 NWS Technologies, LLC	lésan	Verral/	Manager, QA
Date (repair organization)	(authorized fe	epresentative)	(title)

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

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

#### C R O S B Y

## WRENTHAM. MA

PLAN NO.2-100 -

O.C.-292, RE SHEET 1 OF 2

Ruch's Zues

REPAIR AND REPLACEMENT 1/0/0\
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS

Ш					
	1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrenths				
Ħ	(Name and Address)				
Ħ	(Repair organization's P.O. No., Job No., etc.). NV4000020				
	(Nepall Organization 3 1.0. No., 600 No., 402/				
m I	2. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0968				
B					
	(Name and Address)				
	Manager Manager at Man				
曰·	Name and Identification of Nuclear Power Plant HANFORD #2				
且					
<u>=</u>	l. Address of Nuclear Power Plant_RICHLAND_WA				
lh					
<b>三</b> :	i. a. Identifying Nos. N63790-00-0137 1973				
	(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)				
	b. Identification of component repaired or replacement component				
Ħ	c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY				
=					
3					
3,	L. Tests conducted: Hydrostatic (X.) Preumatic ( ) Design Pressure ( ) Pressure 2370.0 psi				
∄`	, , , , , , , , , , , , , , , , , , ,				
≢,	. Identification of System MAIN STEAM				
3_	. Metralication of System MAIN OF COM				
Ξ.	Applicable Section(s) III of ASME Code, 19-71 Edition				
∄°	Applicable Sections;III OF Asiac Cook, 15_// Circon				
╡.					
▆▁	Addends NO Code Case —				
3	D				
∄"	Description of work N56000-02-0042 WAS MODIFIED TO N63790-00-0137				
ቜ	(Use of additional sheetist or sketch(es) is acceptable if correctly identified)				
#.	ASME SEC.XI.1980 EDITION WINTER 1980 ADDENDA.				
<b>⋥</b>					
₹.					
\$1	C.Remarks: THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:				
<b>∄</b> .	PART PART NO. MODIFIED TO PART NO.				
<b>‡</b> . ·	BODY N90118 N93183-41-0124				
<b>]</b> :	<u> 80NNET N89717 N93407-44-0055</u>				
3	SPINDLE ASSY_K55465 K62873-44-0058				
∄`	SPR.WASHER N89724 K62856-44-0203				
<b>∄</b>	SPR.WASHER N89723 K62857-44-0203				
3	SPRING ASSY K55466 K62858-31-0001				
₫.	PART PART NO. REPLACED WITH				
<b>1</b> :	NOZZLE N89713 N93184-51-0157				
≢ _	DISC INSERT N89715 N93185-54-0231				
₹ .	THRUST,BRG,ADAPT N89725 N93409-33-0007				
₹ .	ADJ.BOLT N89726 N93410-32-0006				
1					
₫.					
≢ _	ADJ.BOLT ASSY COMMERCIAL K63618-32-0006				
<b>≢</b> .					
∄ .					
=					
3					
	L. Anne				

Certificate Holder's Serial No. NG3790.00.0137	O.C292, REV. A SHEET 2 OF 2
	See Section 1
We certify that the statements made in this report are correct and all design, material, and MOD.  (repair/replacement)	workmanship on this
Signed Questionized Rep. of Repair Organization) (Title)	25 - 25 - 20 - 20 - 20 - 20 - 20 - 20 -
1, the undersigned, holding a valid commission issued by the National Board of Boiler and Pt impectors and the State or Province of Massachusetts, and employed by France.	ferrant Vessel
ing bose	pair or replacement
concerning the repair or shall be fable in any man connected with this insp	t arrive from or
Signed // (Inspector) + (Inspector) +	Prov. and Ma.)

#### PLBN NO. 2-1006



#### VALVE CROSBY WRENTHAM, MASS

slidel

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
		in the Co. Throughout Many 02002
. Manufactured By Crosby Valve	& Gage Co., 43 Ken	drick St., Wrentham, Mass. 02093
	Name and Address	440.100
Model No. HB-65-BP-FN	Order No. <u>N-105286</u>	Contract Date 6/28/71
	tric Company	***
Manufactured For San Jose, Ca	lifornia	Order No. 205-AD148
Na	me and Address	
Owner Northern Indiana Pub	lic Service Co., Ba	illy Generating Station Nuclear I,
<u></u>	Name and Address	Baileytown, Indiana
Location of Plant Bailevtown.	Tadi sas	·
Location of PlantBallevcown.	Indiana	· · · · · · · · · · · · · · · · · · ·
MPL #B-22-F	013 same No. N56000-0	2-0042 Drawing No. H-56000 Rev . C
AsiAe Ideamies not	367161 NO	
Safety Relief	Onlice Size	R Pipe Size - Inlet 6 Outlet 10
Salety Salety Relief, Priot, Power	Actuated	Inch inch inch inch
		575*
Set Pressure (PSIG) 1195	<del></del>	575° Rated Temperature
20222		rpressure — Blowdown maxox 5%
Stamped Capacity 898800	Lbs. Hr. = <u>3</u> % Ove	rpressure Blowdown
Sat. Steam		
Hydrostatic Test (PSIG) Injet	<u>2370</u> c	ompiete Valve 825
The material, design, construction and		Addenda Date Summer 1972
YMM.		
Pressure Containing or Pressure Reta	ining Components	•
blessing Contribute or Liesame warm		•
	Serial No.	Material Specification
2.XXXXXX Forgings	[dentification	including Type or Grade
		ASTM A-105-71 Gr. II
Body	N89711-32-0024	ASME SA-105 GT. II
	N89717-32-0018	ASTM A-105-71 Gr. II ASME SA-105 Gr. II
Bonner G Park	NO 71 [1 - JE - 10 [0	
h. Bar Stock and Foreings		
	N89715-31-0034	ASTM A-461-65 Type 630
Somewick Disc Insert		ASTM A-461-65 Type 530 ASTM A-182-71 F316 ASME SA-182 F316
Nozzie	<u> </u>	ASME SA-182 F316
	NR9774-32-0042	AMS 5662 R
Disc Holder Top	N89724-32-0042	ASTM A-105-71 Gr. II
Spring Washers Bottom		ASME SA-105 Gr. II
. •	N89726-32-0012	ASTM A-193-71 Gr. 86 ASME SA-193 Gr. 36
Adjusting STATE Bolt		
Spindle Point	<b>389720-32-0034</b>	- ASTM A-564-72 Type 630
		.4RPm
		HRP0



Serial No. or

Material Specification

	[dentification	Including Type or Grade				
c. Spring	NX2689-0047	ASTM A-304-66 Gr. 4161H				
d. Bolting						
e. John Plant Monky et Fullis / Completion	<u> </u>	A C 102 71 2				
Inlet Stud	N89727-0493 thru 0504	ASTM A-193-71 Gr. B7 ASME SA-193 Gr. B7				
Inlet Stud Nut	N89728-0497 thru 0508	ASTM A-194-71 Cl. 2H ASME SA-194 Cl. 2H				
Bonnet Stud	N89718-0497 thru 0508	ASTM A-193-/1 Gr. B/ ASME SA-139 Gr. B7				
Bonnet Stud Nut	N89719-0499 thru 0510	ASTM A-194-71 Cl. 2H ASME SA-194 Cl. 2H				
OTHER PARTS						
Spindle Ball	N89721-0034	Stellite 6				
BARS & FORGINGS	N89725-31-0009	ASTM A-193-71 Gr. B6 ASME SA-193 Gr. B6				
We certify that the statements made in this report are correct.						
Date 10-31 19 73 Signed Crosby Valve & Gage Co. B. Hu 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 Vesset Inspectors and the State or Province of Mass.
Mutual Boiler & Machinery Insurance Co. \* Waltham. and employed by Magg 192 inspected the equipment described in this Data Report on 6 /+che. 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. \*Fractory initial Group of Insurance Co.

Date October 11 - Commissions H.R. GC 45 Mass. 1076 National Board. State. Province and No.1 ((DEDector)