ENERGY NORTHWEST

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.

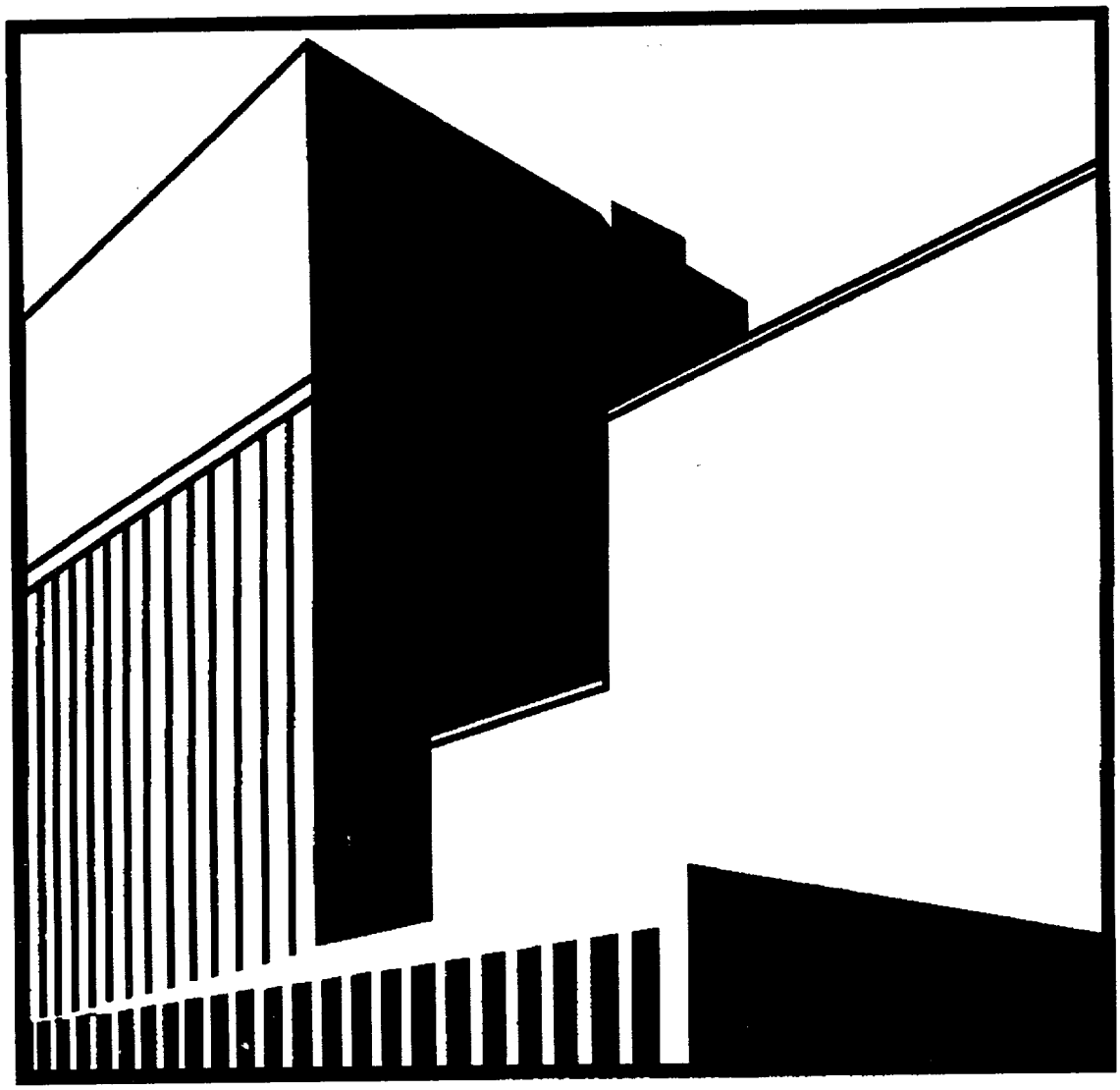
Respectfully,

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

A047



COLUMBIA GENERATING STATION
INSERVICE INSPECTION
SUMMARY REPORT
FOR REFUELING OUTAGE
R15

Spring, 2001

ENERGY NORTHWEST

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 Serial Number: T-45
State No.: 29936-84W Nat'l Bd No.: 8

Prepared By: D P Ramey 8/28/2001
ISI Engineer Date

Program Lead Engineer 8/28/01
Date

Reviewed & Concurred By:
NDE Lead 8/28/01
Date

ISI Engineer's Supervisor 8/29/01
Date

Concurrence
Authorized Nuclear Inservice Inspector 8/31/01
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

1. **Owner:** Energy Northwest, Columbia Generating Station, North Power Plant Loop, Richland, Washington 99352
2. **Plant:** Columbia Generating Station, North Power Plant Loop, Richland, 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
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

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.

14. **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.

15. **Abstract of Corrective Measures:**
    1) The RRC-P-1A lug indication was removed and reexamination was acceptable.
    2) The MS-1010N strut was replaced.
    3) The galled stud from 4MS(12)-1BD was replaced.
    4) The leaks in RFW-V-32B and RCIC-V-63 were repaired.

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

Certificate of Authorization No. (if applicable) NA Expiration Date NA

Date 8/29 2001 Signed Energy Northwest By _____
Owner

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Data Report during the period 10/25/99 to 7/2/01, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

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

_____ Commissions 7486 W/ 7486 WISBES
Inspector's Signature National Board, State, Province, and Endorsements

Date 8/30 2001

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

Snubber Mark Number	Position	Description	Serial No.	Test Date
RCIC-100	EAST	PSA-1/2	2536	5/23/01
RHR-210		PSA-1/2	111	5/22/01
RHR-23	WEST	PSA-1/4	305	5/22/01
MD-1364-12A		PSA-1/4	19890	5/21/01
MS-1368-13		PSA-1/2	2470	5/25/01
MSLC-2821-12	TOP	PSA-1/4	289	5/25/01
FPC-65		PSA-1	22353	5/23/01
HPCS-905N		PSA-10	9944	5/22/01
LPCS-28		PSA-3	3891	5/22/01
RHR-359		PSA-3	2346	5/23/01
RHR-405		PSA-3	4420	5/23/01
RHR-948N	BOT	PSA-3	2580	5/22/01
RHR-59		PSA-10	9942	5/22/01
RHR-137	WEST	PSA-10	14553	5/22/01
RHR-944N		PSA-3	4411	5/22/01
RHR-548	EAST	PSA-3	630	5/23/01
RHR-551	EAST	PSA-3	3940	5/23/01
RHR-945N	WEST	PSA-1	134	5/22/01
RHR-218	EAST	PSA-10	308	5/22/01
RHR-940N	BOT	PSA-3	2570	5/23/01
RHR-403		PSA-1	621	5/22/01
SW-29	SW	PSA-10	4860	5/22/01
MS-48		PSA-3	10605	5/21/01
MSRV-4D-2		PSA-10	9933	5/25/01
MSLC-2821-22		PSA-1	581	5/24/01
RFW-171		PSA-10	579	5/25/01
RFW-942N	BOT	PSA-1	338	5/24/01
RHR-388	WEST	PSA-10	1486	5/25/01
RHR-286	EAST	PSA-10	15458	5/24/01
RHR-SA-32	WEST	PSA-10	9937	5/25/01
RHR-901N	NORTH	PSA-3	265	5/24/01
RWCU-1C-17	SE	PSA-1	582	5/24/01
MS-1005N		PSA-35	10736	5/21/01
RFW-151		PSA-35	10732	5/25/01
RHR-282		PSA-35	9256	5/24/01
RHR-481		PSA-35	10739	5/22/01
RHR-495	BOT	PSA-35	6175	5/24/01

KEY

BM	Bottom	NE	Northeast	SE	Southeast	UA	Single snubber
E	East	NW	Northwest	S	South	W	West
N	North	SW	Southwest	TP	Top		

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.

Notes are on page 16

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):

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

Notes are on page 16

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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):

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	A
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	A
RPV NUT 36-1-11A	RPV NUT	RPV-101	SUR	2RPM-006	5/28/01	A
RPV NUT 36-1-11A	RPV 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	A
RPV NUT 36-1-17A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-17A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-18A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-18A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-18A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-19A	RPV NUT	RPV-101	SUR	2RPU-006	5/28/01	A
RPV NUT 36-1-19A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-19A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
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
RPV NUT 36-1-31A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-31A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-32A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-32A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-32A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-33A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-33A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
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	A
RPV NUT 36-1-38A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-38A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-39A	RPV NUT	RPV-101	SUR	2RPU-005	5/28/01	A
RPV NUT 36-1-39A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-39A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-40A	RPV NUT	RPV-101	SUR	2RPM-006	5/28/01	A
RPV NUT 36-1-40A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-40A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-45A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-45A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-45A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-46A	RPV NUT	RPV-101	SUR	2RPM-006	5/28/01	A
RPV NUT 36-1-46A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-46A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-52A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-52A	RPV 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	A
RPV NUT 36-1-53A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-53A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-53A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-59A	RPV NUT	RPV-101	SUR	2RPU-005	5/28/01	A
RPV NUT 36-1-59A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A

Notes are on page 16

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):

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	A
RPV NUT 36-1-60A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-60A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-60A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
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	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-67A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
RPV NUT 36-1-73A	RPV NUT	RPV-101	SUR	2RPM-005	5/28/01	A
RPV NUT 36-1-73A	RPV NUT	RPV-101	VOL	2RPU-010	5/28/01	A
RPV NUT 36-1-73A	RPV NUT	RPV-101	VOL	2RPU-011	5/28/01	A
Item Number: B6.30						
RPV STUD 35-1-3A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-4A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-5A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-10A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
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	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-18A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-19A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-24A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-25A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-26A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-31A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-32A	RPV 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	A
RPV STUD 35-1-40A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-45A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-46A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-52A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-53A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-59A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-60A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-66A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-67A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-73A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
RPV STUD 35-1-74A	RPV STUD	RPV-101	VOL	R15-119	5/22/01	A
Item Number: B6.50						
RPV WASHER 35-1-3A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-4A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-5A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-10A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-11A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-12A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-17A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-18A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-19A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-24A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-25A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	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
RPV WASHER 35-1-32A	RPV WASHER	RPV-101	VT-1	2RPV-015	5/29/01	A

Notes are on page 16

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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):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
RPV WASHER 35-1-33A	RPV WASHER	RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-38A	RPV WASHER	RPV-101		VT-1	2RPV-015	5/29/01	A
RPV WASHER 35-1-39A	RPV WASHER	RPV-101		VT-1	2RPV-015	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	5/29/01	A
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	A
Examination Category: B-G-2							
Item Number B7.10							
6SPARE-1BU	FLANGE BOLTING	RPV-102		VT-1	2RPV-016	5/28/01	A
Item Number: B7.50							
4HPCS(1)-1BD	FLANGE BOLTING	HPCS-101	01	VT-1	2HPV-005	5/31/01	A
4LPCS(1)-1BU	FLANGE BOLTING	LPCS-101	02	VT-1	2LPV-005	5/27/01	A
8MSR-4A-2BD	FLANGE BOLTING	MS-101	01	VT-1	2MSV-136	5/27/01	A
4MS(12)-1BD	FLANGE BOLTING	MS-106	01	VT-1	2MSV-137	5/29/01	R(2)
4MS(12)-1BD	FLANGE BOLTING	MS-106	01	VT-1	2MSV-138	6/12/01	A
Item Number: B7.70							
HPCS-V-4-BLT	VALVE BOLTING	HPCS-101	01	VT-1	2HPV-004	5/1/01	A
HPCS-V-5-BLT	VALVE BOLTING	HPCS-101	02	VT-1	2HPV-007	5/28/01	A
HPCS-V-51-BLT	VALVE BOLTING	HPCS-101	02	VT-1	2HPV-006	5/28/01	A
LPCS-V-6-BLT	VALVE BOLTING	LPCS-101	02	VT-1	2LPV-004	5/27/01	A
LPCS-V-51-BLT	VALVE BOLTING	LPCS-101	02	VT-1	2LPV-006	5/27/01	A
MS-RV-1A-BLT	VALVE BOLTING	MS-101	01	VT-1	2MSV-129	5/18/01	A
MS-RV-4B-BLT	VALVE BOLTING	MS-102	01	VT-1	2MSV-128	5/18/01	A
MS-RV-3B-BLT	VALVE BOLTING	MS-102	01	VT-1	2MSV-131	5/18/01	A
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	A
MS-RV-4C-BLT	VALVE BOLTING	MS-103	01	VT-1	2MSV-130	5/18/01	A
MS-RV-3C-BLT	VALVE BOLTING	MS-103	01	VT-1	2MSV-127	5/18/01	A
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	A
RCIC-V-64-BLT	VALVE BOLTING	RCIC-101	01	VT-1	2RIV-008	5/4/01	A
RCIC-V-8-BLT	VALVE BOLTING	RCIC-101	03	VT-1	2RIV-007	5/4/01	A
RWCU-V-40-BLT	VALVE BOLTING	RFW-103		VT-1	2RTV-004	6/2/01	A
RHR-V-41B-BLT	VALVE BOLTING	RHR-102		VT-1	2RHV-021	5/24/01	A
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	A
RRC-V-23A-BLT	VALVE BOLTING	RRC-101	01	VT-1	2RRV-005	5/24/01	A
RRC-V-67B-BLT	VALVE BOLTING	RRC-102	02	VT-1	2RRV-006	5/25/01	A
RWCU-V-101-BLT	VALVE BOLTING	RWCU-101	01	VT-1	2RTV-003	5/28/01	A
RWCU-V-106-BLT	VALVE BOLTING	RWCU-101	02	VT-1	2RTV-002	5/28/01	A
RWCU-V-1-BLT	VALVE BOLTING	RWCU-101	04	VT-1	2RTV-001	5/28/01	A
Examination Category: B-H							
Item Number: B8.10							
STAB-BRACKET-0	STAB LUG @ 0	RPV-101		SUR	2RPP-004	5/26/01	A
STAB-BRACKET-45	STAB LUG @ 45	RPV-101		SUR	2RPP-003	5/26/01	A

Notes are on page 16

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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):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
STAB-BRACKET-90	STAB LUG @ 90	RPV-101		SUR	2RPP-003	5/27/01	A
STAB-BRACKET-135	STAB LUG @ 135	RPV-101		SUR	2RPP-001	5/26/01	A
STAB-BRACKET-180	STAB LUG @ 180	RPV-101		SUR	2RPP-005	5/26/01	A
STAB-BRACKET-225	STAB LUG @ 225	RPV-101		SUR	2RPP-004	5/26/01	A
STAB-BRACKET-270	STAB LUG @ 270	RPV-101		SUR	2RPP-004	5/26/01	A
STAB-BRACKET-315	STAB LUG @ 315	RPV-101		SUR	2RPP-004	5/26/01	A
Examination Category: B-J							
Item Number: B9.11							
6RCIC(1)-39	ELL TO PIPE	RCIC-102	03	VOL	R15-085	5/28/01	A
6RCIC(1)-40	PIPE TO VLV	RCIC-102	03	VOL	R15-086	5/28/01	A
24RFW(1)B-4	PENE TO VALVE	RFW-102	01	VOL	R15-047	5/29/01	A
6RFW(11)-4	PIPE TO ELL	RFW-103		VOL	R15-092	5/30/01	A
6RFW(11)-5	ELL TO PIPE	RFW-103		VOL	R15-093	5/30/01	A
4RFW(11)B-1	REDUCER TO PIPE	RFW-103		VOL	R15-072	5/30/01	A
4RFW(11)B-2	PIPE TO ELL	RFW-103		VOL	R15-074	5/30/01	A
4RFW(11)B-3	ELL TO PIPE	RFW-103		VOL	R15-075	5/30/01	A
4RFW(11)B-4	PIPE TO ELL	RFW-103		VOL	R15-076	5/30/01	A
4RFW(11)B-5	ELL TO SLEEVE	RFW-103		VOL	R15-077	5/30/01	A
12RHR(1)B-4	ELL TO PIPE	RHR-106		VOL	R15-012	5/24/01	A
12RHR(1)B-5	PIPE TO ELL	RHR-106		VOL	R15-013	5/24/01	A
12RHR(1)B-9	PIPE TO VLV	RHR-106		VOL	R15-014	5/24/01	A
24RRC(2)A-2	SE TO PIPE	RRC-101	01	VOL	R15-044	5/22/01	A
24RRC(2)A-3	PIPE TO ELL	RRC-101	01	VOL	R15-045	5/29/01	A
24RRC(2)A-10	VALVE TO PIPE	RRC-101	01	VOL	R15-049	5/24/01	A
24RRC(2)A-11	PIPE TO ELL	RRC-101	01	VOL	R15-052	5/24/01	A
24RRC(1)A-14	PIPE TO VALVE	RRC-101	02	VOL	R15-053	5/24/01	A
24RRC(1)A-15	VALVE TO PIPE	RRC-101	02	VOL	R15-054	5/24/01	A
24RRC(1)A-16	PIPE TO ELL	RRC-101	02	VOL	R15-055	5/25/01	A
24RRC(1)A-17	ELL TO PIPE	RRC-101	02	VOL	R15-056	5/25/01	A
24RRC(1)A-18	PIPE TO VALVE	RRC-101	02	VOL	R15-057	5/25/01	A
24RRC(1)A-19	VALVE TO ELL	RRC-101	02	VOL	R15-058	5/24/01	A
24RRC(1)A-20	ELL TO PIPE	RRC-101	02	VOL	R15-059	5/24/01	A
12RRC(1)-N2A-1A	PIPE TO PIPE	RRC-101	08	VOL	R15-015	5/26/01	A
12RRC(1)-N2B-1A	PIPE TO PIPE	RRC-101	07	VOL	R15-016	5/26/01	A
12RRC(1)-N2C-1A	PIPE TO PIPE	RRC-101	06	VOL	R15-017	5/25/01	A
12RRC(1)-N2D-1A	PIPE TO PIPE	RRC-101	05	VOL	R15-018	5/25/01	A
12RRC(1)-N2E-1A	PIPE TO PIPE	RRC-101	04	VOL	R15-019	5/25/01	A
20RRC(6)-8	PIPE TO VALVE	RRC-105		VOL	R15-042	5/25/01	A
Examination Category: B-K-1							
Item Number: B10.10							
HPCS-64(W)	4 WELDED LUGS	HPCS-101	01	SUR	2HPM-011	5/28/01	A
MS-HB-1(W)	4 WELDED LUGS	MS-102	01	SUR	2MSM-041	5/28/01	A
MS-HC-1(W)	4 WELDED LUGS	MS-103	01	SUR	2MSM-042	5/28/01	A
MS-HD-1(W)	4 WELDED LUGS	MS-104	01	SUR	2MSM-040	5/28/01	A
RCIC-1C-13(W)	8 WELDED LUGS	RCIC-101	02	SUR	2RIM-013	5/30/01	A
RCIC-1C-2(W)	8 WELDED LUGS	RCIC-101	03	SUR	2RIM-014	5/30/01	A
RFW-157(W)	4 WELDED LUGS	RFW-101	05	SUR	2FWM-016	5/29/01	A
RFW-185(W)	4 WELDED LUGS	RFW-102	05	SUR	2RWM-017	5/29/01	A
RRC-HA-1(W)	4 WELDED LUGS	RRC-101	01	SUR	2RRP-014	5/25/01	A
RWCU-1C-17(W)	8 WELDED LUGS	RWCU-101	01	SUR	2RTM-001	5/28/01	A
RWCU-1C-4PS(W)	8 WELDED LUGS	RWCU-101	03	SUR	2RTM-002	5/28/01	A
RWCU-1C-3(W)	8 WELDED LUGS	RWCU-101	04	SUR	2RTM-003	5/29/01	A
Item Number: B10.20							
RRC-RA-1(W)	1 WELDED LUG	RRC-103		SUR	2RRP-013	5/25/01	R(3)
RRC-RA-1(W)	1 WELDED LUG	RRC-103		SUR	6-01-4-4	6/3/01	A

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6. **National Board Number:** NA

13. Abstract of Examinations and Tests (continued):

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	A
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	RPV ATTACH WELD	RPV-101	EVT1	R15 IVVI	6/5/01	A
LPCS HORT SEIS ATT WLD	RPV ATTACH WELD	RPV-101	EVT1	R15 IVVI	6/5/01	A
LPCS VERT SEIS ATT WLD	RPV ATTACH WELD	RPV-101	EVT1	R15 IVVI	6/5/01	A
LPCS HDR CLMP ATT WLD 2	RPV ATTACH WELD	RPV-101	EVT1	R15 IVVI	6/5/01	A
HPCS HDR CLMP ATT WLD 1	RPV ATTACH WELD	RPV-101	EVT1	R15 IVVI	6/5/01	A
HPCS VERT SEIS ATT WLD	RPV ATTACH WELD	RPV-101	EVT1	R15 IVVI	6/5/01	A
HPCS HORT SEIS ATT WLD	RPV ATTACH WELD	RPV-101	EVT1	R15 IVVI	6/5/01	A
HPCS HDR CLMP ATT WLD 2	RPV ATTACH WELD	RPV-101	EVT1	R15 IVVI	6/5/01	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	OSP-RPV-R801	6/19/01	A
LPCS-PB-101(L)	LK PRES BNDRY	LPCS-101	VT-2	OSP-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	OSP-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	OSP-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-RPV-R801	6/19/01	A
RRC-PB-108(L)	LK PRES BNDRY	RRC-108	VT-2	OSP-RPV-R801	6/19/01	A
RRC-PB-109(L)	LK PRES BNDRY	RRC-109	VT-2	OSP-RPV-R801	6/19/01	A
RRC-PB-110(L)	LK PRES BNDRY	RRC-110	VT-2	OSP-RPV-R801	6/19/01	A
RRC-PB-111(L)	LK PRES BNDRY	RRC-111	VT-2	OSP-RPV-R801	6/19/01	A
RWCU-PB-101(L)	LK PRES BNDRY	RWCU-101	VT-2	OSP-RPV-R801	6/19/01	A
SLC-PB-101(L)	LK PRES BNDRY	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	A

Notes are on page 16

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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):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
RRC-P-1B-BDY(L)	LK PRES BNDRY	RRC-103		VT-2	OSP-RPV-R801	6/19/01	A
RRC-PB-103(L)	LK PRES BNDRY	RRC-103		VT-2	OSP-RPV-R801	6/19/01	A
Item Number: B15.70							
HPCS-V-4-BDY(L)	LK PRES TEST	HPCS-101	01	VT-2	OSP-RPV-R801	6/19/01	A
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	A
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	LPCS-101	02	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-4A-BDY(L)	LK PRES TEST	MS-101	01	VT-2	OSP-RPV-R801	6/19/01	A
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	A
MS-RV-1A-BDY(L)	LK PRES TEST	MS-101	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-V-22A-BDY(L)	LK PRES TEST	MS-101	02	VT-2	OSP-RPV-R801	6/19/01	A
MS-V-28A-BDY(L)	LK PRES TEST	MS-101	02	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-5B-BDY(L)	LK PRES TEST	MS-102	01	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	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-2B-BDY(L)	LK PRES TEST	MS-102	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-1B-BDY(L)	LK PRES TEST	MS-102	01	VT-2	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	A
MS-V-28B-BDY(L)	LK PRES TEST	MS-102	02	VT-2	OSP-RPV-R801	6/19/01	A
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	A
MS-RV-4D-BDY(L)	LK PRES TEST	MS-104	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-3D-BDY(L)	LK PRES TEST	MS-104	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-2D-BDY(L)	LK PRES TEST	MS-104	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-RV-1D-BDY(L)	LK PRES TEST	MS-104	01	VT-2	OSP-RPV-R801	6/19/01	A
MS-V-22D-BDY(L)	LK PRES TEST	MS-104	02	VT-2	OSP-RPV-R801	6/19/01	A
MS-V-28D-BDY(L)	LK PRES TEST	MS-104	02	VT-2	OSP-RPV-R801	6/19/01	A
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)	LK PRES TEST	RCIC-101	01	VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-23-BDY(L)	LK PRES TEST	RCIC-102	01	VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-19-BDY(L)	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	OSP-RPV-R801	6/19/01	A
RCIC-V-65-BDY(L)	LK PRES TEST	RCIC-102	01	VT-2	OSP-RPV-R801	6/19/01	A
RCIC-V-66-BDY(L)	LK PRES TEST	RCIC-102	03	VT-2	OSP-RPV-R801	6/19/01	A
RFW-V-65A-BDY(L)	LK PRES TEST	RFW-101	01	VT-2	OSP-RPV-R801	6/19/01	A
RFW-V-32A-BDY(L)	LK PRES TEST	RFW-101	01	VT-2	OSP-RPV-R801	6/19/01	A
RFW-V-10A-BDY(L)	LK PRES TEST	RFW-101	01	VT-2	OSP-RPV-R801	6/19/01	A
RFW-V-11A-BDY(L)	LK PRES TEST	RFW-101	01	VT-2	OSP-RPV-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-RPV-R801	6/19/01	R(5)
RFW-V-10B-BDY(L)	LK PRES TEST	RFW-102	01	VT-2	OSP-RPV-R801	6/19/01	A
RFW-V-11B-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	OSP-RPV-R801	6/19/01	A
RHR-V-42A-BDY(L)	LK PRES TEST	RHR-101		VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-41A-BDY(L)	LK PRES TEST	RHR-101		VT-2	OSP-RPV-R801	6/19/01	A
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-RPV-R801	6/19/01	A
RHR-V-41B-BDY(L)	LK PRES TEST	RHR-102		VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-111B-BDY(L)	LK PRES TEST	RHR-102		VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-42C-BDY(L)	LK PRES TEST	RHR-103		VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-41C-BDY(L)	LK PRES TEST	RHR-103		VT-2	OSP-RPV-R801	6/19/01	A

Notes are on page 16

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6. **National Board Number:** NA

13. Abstract of Examinations and Tests (continued):

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	6/19/01	A
RHR-V-113-BDY(L)	LK PRES TEST	RHR-104		VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-9-BDY(L)	LK PRES TEST	RHR-104		VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-8-BDY(L)	LK PRES TEST	RHR-104		VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-53A-BDY(L)	LK PRES TEST	RHR-105		VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-50A-BDY(L)	LK PRES TEST	RHR-105		VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-112A-BDY(L)	LK PRES TEST	RHR-105		VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-50B-BDY(L)	LK PRES TEST	RHR-106		VT-2	OSP-RPV-R801	6/19/01	A
RHR-V-112B-BDY(L)	LK PRES TEST	RHR-106		VT-2	OSP-RPV-R801	6/19/01	A
RRC-V-23A-BDY(L)	LK PRES TEST	RRC-101	01	VT-2	OSP-RPV-R801	6/19/01	A
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	A
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 Item Number: C1.10							
AC-4	SHEL/HD CIR WLD	RHR-214		VOL	2RHU-014	4/17/01	A
Examination Category: C-B Item Number: C2.21							
AN-4	OUT NZ/SHEL WLD	RHR-214		SUR	2RHM-036	4/16/01	A
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
Examination Category: C-C Item Number: C3.20							
MS-117(W)	1 WELDED SADDLE	MS-201	02	SUR	2MSM-031	5/24/01	A
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	A
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	A
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	A
RHR-245(W)	8 WELDED LUGS	RHR-201	11	SUR	2RHM-038	4/19/01	A
RHR-597(W)	8 WELDED LUGS	RHR-204	02	SUR	2RHM-052	4/18/01	A
RHR-53(W)	4 WELDED LUGS	RHR-207	08	SUR	2RHM-053	4/25/01	A
RHR-465(W)	8 WELDED LUGS	RHR-207	09	SUR	2RHM-056	4/26/01	A
RHR-479(W)	4 WELDED LUGS	RHR-207	10	SUR	2RHM-055	4/25/01	A
RHR-486(W)	4 WELDED LUGS	RHR-207	10	SUR	2RHM-054	4/25/01	A
Examination Category: C-F-2 Item Number: C5.51							
16HPCS(1)-7	ELL TO PIPE	HPCS-202	01	SUR	2HPM-009	5/1/01	A

Notes are on page 16

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

13. Abstract of Examinations and Tests (continued):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
16HPCS(1)-7	ELL TO PIPE	HPCS-202	01	VOL	R15-025	5/1/01	A
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	5/10/01	A
12LPCS(3)-5	VLV TO PIPE	LPCS-202	03	SUR	2LPM-007	5/10/01	A
12LPCS(3)-5	VLV TO PIPE	LPCS-202	03	VOL	R15-005	5/10/01	A
12LPCS(3)-6	PIPE TO ELL	LPCS-202	03	SUR	2LPM-006	5/10/01	A
12LPCS(3)-6	PIPE TO ELL	LPCS-202	03	VOL	R15-006	5/10/01	A
16LPCS(1)-27	ELL TO PIPE	LPCS-202	04	SUR	2LPM-005	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	5/29/01	A
6RCIC(1)-62A	VALVE TO PIPE	RCIC-205	02	SUR	2RIM-015	5/29/01	A
6RCIC(1)-88	PIPE TO ELL	RCIC-205	05	SUR	2RIM-011	5/3/01	A
6RCIC(1)-88	PIPE TO ELL	RCIC-205	05	VOL	R15-088	5/3/01	A
6RCIC(1)-99	ELL TO PIPE	RCIC-205	06	SUR	2RIM-010	5/3/01	A
6RCIC(1)-99	ELL TO PIPE	RCIC-205	06	VOL	R15-089	5/3/01	A
6RCIC(1)-105	PIPE TO ELBOW	RCIC-205	6A	SUR	2RIM-009	5/3/01	A
6RCIC(1)-105	PIPE TO ELBOW	RCIC-205	6A	VOL	R15-087	5/3/01	A
6RCIC(22)-10	ELL TO TEE	RCIC-205	07	SUR	2RIM-012	5/4/01	A
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	A
20RHR(1)A-2	PIPE TO NOZZLE	RHR-201	03	VOL	R15-038	4/19/01	A
18RHR(11)A-1	TEE TO PIPE	RHR-201	05	SUR	2RHM-044	4/17/01	A
18RHR(11)A-1	TEE TO PIPE	RHR-201	05	VOL	R15-033	4/23/01	A
18RHR(11)A-14	PIPE TO TEE	RHR-201	05	SUR	2RHM042	4/18/01	A
18RHR(11)A-14	PIPE TO TEE	RHR-201	05	VOL	R15-034	4/23/01	A
20RHR(1)A-6	PIPE TO REDUCER	RHR-201	06	SUR	2RHM-043	4/17/01	A
20RHR(1)A-6	PIPE TO REDUCER	RHR-201	06	VOL	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	A
18RHR(1)A-54	PIPE TO TEE	RHR-201	07	SUR	2RHM-037	4/19/01	A
18RHR(1)A-54	PIPE TO TEE	RHR-201	07	VOL	R15-032	4/20/01	A
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	A
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	A
14RHR(1)A-21	ELL TO PIPE	RHR-201	10	SUR	2RHM-040	4/18/01	A
14RHR(1)A-21	ELL TO PIPE	RHR-201	10	VOL	R15-023	4/20/01	A
18RHR(4)A-8	PIPE TO ELL	RHR-203	01	SUR	2RHM-046	4/18/01	A
18RHR(4)A-8	PIPE TO ELL	RHR-203	01	VOL	R15-035	4/23/01	A
20RHR(2)A-7	ELL TO PIPE	RHR-205	01	SUR	2RHM-048	4/18/01	A
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	03	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							
16LPCS(1)-2/6LPCS(4)-2	BRANCH CONN	LPCS-202	01	SUR	2LPM-009	5/10/01	A
16LPCS(1)-2/6LPCS(4)-2	BRANCH CONN	LPCS-202	01	VOL	R15-120	5/10/01	A
Examination Category: C-G							
Item Number: C6.10							
HPCS-P-1C-4	PMP CAS/CIR WLD	HPCS-206	01	SUR	2HPM-008	11/14/00	A
HPCS-P-1C-5	PMP CAS/CIR WLD	HPCS-206	01	SUR	2HPM-008	11/14/00	A
HPCS-P-1C-6	PMP CAS/CIR WLD	HPCS-206	01	SUR	2HPM-008	11/14/00	A
HPCS-P-1N-3	PMP NOZZLE WELD	HPCS-206	01	SUR	2HPM-008	11/14/00	A

Notes are on page 16

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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):

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

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

13. Abstract of Examinations and Tests (continued):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
MS-2619-314	STRUT	MS-106	03	VT-3	2HV-0251	5/26/01	A
RCIC-1C-13	RIGID STRUT	RCIC-101	02	VT-3	2HV-0271	5/30/01	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-0261	5/28/01	A
SLC-4453-44	RIGID	SLC-101	03	VT-3	2HV-0186	5/2/01	A
SLC-4453-45	RIGID	SLC-101	03	VT-3	2HV-0187	5/2/01	A
SLC-4453-46	RIGID	SLC-101	03	VT-3	2HV-0188	5/2/01	A
SLC-4453-55	RIGID	SLC-101	04	VT-3	2HV-0189	5/2/01	A
SLC-4453-56	RIGID	SLC-101	04	VT-3	2HV-0190	5/2/01	A
SLC-4453-57	RIGID	SLC-101	04	VT-3	2HV-0191	5/2/01	A
SLC-4453-63	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	A
Item Number: F1.10B							
RFW-159	SPRING	RFW-101	03	VT-3	2HV-0269	5/29/01	A
Item Number: F1.10C							
MS-HC-1	SPRING	MS-103	01	VT-3	2HV-0258	5/28/01	A
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	A
Item Number: F1.10D							
LPCS-28	PSA-3 SNUBBER	LPCS-101	01	VT-3	2HV-0285	5/29/01	A
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-0267	5/29/01	A
RHR-SA-32	PSA-10 SNUBBER	RHR-105		VT-3	2HV-0286	5/26/01	A
RWCU-1C-17	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	A
Item Number: F1.20A							
HPCS-21	RIGID	HPCS-202	01	VT-3	2HV-0182	5/1/01	A
HPCS-26	STRUT	HPCS-202	04	VT-3	2HV-0184	5/1/01	A
LPCS-19	ANCHOR	LPCS-202	04	VT-3	2HV-0207	5/10/01	A
LPCS-42	BOX	LPCS-202	04	VT-3	2HV-0206	5/10/01	A
MS-179	STRUT	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	A
MS-65	STRUT	MS-204	02	VT-3	2HV-0248	5/26/01	A
MS-906N	STRUT	MS-204	02	VT-3	2HV-0237	5/25/01	A
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	A
MS-1009N	RIGID	MS-204	02	VT-3	2HV-0244	5/25/01	A
MS-59	STRUT	MS-204	02	VT-3	2HV-0246	5/25/01	A
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	A
RCIC-11	BOX	RCIC-205	02	VT-3	2HV-0194	5/4/01	A
RCIC-955N	BOX	RCIC-205	05	VT-3	2HV-0204	5/4/01	A
RCIC-954N	BOX	RCIC-205	05	VT-3	2HV-0203	5/4/01	A

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13. Abstract of Examinations and Tests (continued):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
RCIC-88	BOX	RCIC-205	06	VT-3	2HV-0197	5/4/01	A
RCIC-95	BOX	RCIC-205	6A	VT-3	2HV-0198	5/4/01	A
RCIC-98	STRUT	RCIC-205	6A	VT-3	2HV-0199	5/4/01	A
RCIC-99	STRUT	RCIC-205	6A	VT-3	2HV-0200	5/4/01	A
RHR-158	STRUT	RHR-201	01	VT-3	2HV-0165	4/16/01	A
RHR-362	STRUT	RHR-201	05	VT-3	2HV-0161	4/12/01	A
RHR-1011S	PIPE CLAMP	RHR-201	07	VT-3	2HV-0159	4/12/01	A
RHR-240	BOX	RHR-201	10	VT-3	2HV-0167	4/17/01	A
RHR-964N	ANCHOR	RHR-201	10	VT-3	2HV-0168	4/17/01	A
RHR-245	BOX	RHR-201	11	VT-3	2HV-0173	4/17/01	A
RHR-597	STRUT	RHR-204	02	VT-3	2HV-0164	4/13/01	A
Item Number: F1.20B							
RHR-363	SPRING	RHR-201	05	VT-3	2HV-0162	4/12/01	A
RHR-486	SPRING	RHR-207	10	VT-3	2HV-0180	4/25/01	A
Item Number: F1.20C							
HPCS-23	SPRING	HPCS-202	01	VT-3	2HV-0183	5/1/01	A
LPCS-9	SPRING	LPCS-202	01	VT-3	2HV-0208	5/10/01	A
MS-178	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-31	SPRING	RCIC-205	01	VT-3	2HV-0195	5/4/01	A
RCIC-86	SPRING	RCIC-205	06	VT-3	2HV-0196	5/4/01	A
RHR-261	SPRING	RHR-201	11	VT-3	2HV-0172	4/17/01	A
RHR-53	SPRING	RHR-207	08	VT-3	2HV-0181	4/25/01	A
Item Number: F1.20D							
HPCS-47	PSA-3 SNUBBER	HPCS-201	02	VT-3	2HV-0185	5/1/01	A
MS-998N	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-945N	PSA-10 SNUBBER	RCIC-201	01	VT-3	2HV-0201	5/4/01	A
RCIC-100	PSA-1/2 SNUBBER	RCIC-205	6A	VT-3	2HV-0205	5/4/01	A
RHR-142	PSA-1 SNUBBER	RHR-201	04	VT-3	2HV-0166	4/16/01	A
RHR-361	PSA-3 SNUBBER	RHR-201	05	VT-3	2HV-0163	4/12/01	A
RHR-271	PSA-3 SNUBBER	RHR-201	07	VT-3	2HV-0160	4/12/01	A
RHR-235	PSA-10 SNUBBER	RHR-201	08	VT-3	2HV-0174	4/18/01	A
RHR-1022N	PSA-35 SNUBBER	RHR-201	11	VT-3	2HV-0169	4/17/01	A
RHR-244	PSA-35 SNUBBER	RHR-201	11	VT-3	2HV-0170	4/17/01	A
RHR-260	PSA-10 SNUBBER	RHR-201	11	VT-3	2HV-0171	4/17/01	A
Item Number: F1.30A							
FPC-909N	RIGID	FPC-301	08	VT-3	2HV-0156	3/5/01	A
FPC-40	STRUT	FPC-301	08	VT-3	2HV-0157	3/5/01	A
FPC-118	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-908N	BOX	RCC-301	03	VT-3	2HV-0214	5/22/01	A
RCC-276	BOX	RCC-301	03	VT-3	2HV-0211	5/22/01	A
RCC-280	ANCHOR	RCC-301	03	VT-3	2HV-0212	5/22/01	A
RCC-285	STRUT	RCC-301	03	VT-3	2HV-0213	5/22/01	A
SW-154	STRUT	SW-303	01	VT-3	2HV-0176	4/19/01	A

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13. Abstract of Examinations and Tests (continued):

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

Notes to section 13 "Abstract of Examinations and Tests"
(1) A = Acceptable R = Rejectable
(2) One stud to RPV head vent flange connection was galled
(3) Unacceptable dye penetrant indication on lug to RRC-P-1A welds
(4) RCIC-V-63 found leaking at plugged leak off connection
(5) RFW-V-32B found leaking on actuator side of valve.
(6) One strut on component support MS-1010N had a cracked weld

- END OF REPORT-

Notes are on page 16

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.

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	Reoriented 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	1007051 01	Replaced valve SLC-V-16	Piping	RF01 Summary Report
2-1673 *	1006533 01	Replaced valve HPCS-V-39	Piping	RF01 Summary Report
2-1674 *	1024764 15	Seal welded bonnet leak off connection for valve RCIC-V-63	Valve	RF01 Summary Report
2-1675	1004098 02	Replaced valve SW-V-2A	Valve	RF01 Summary Report
2-1676	1009095 01	Modified outlet flange for spare valve Serial No 138433-1-1 (LPCS-RV-18)	Relief Valve	RF01 Summary Report
2-1677	1009043 03	Replaced relief valve LPCS-RV-18	Piping	RF01 Summary Report
2-1678	1008120 01	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
2-1680	1008215 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

PLAN NO	WOT NO	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

PLAN 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	1020130 12	Overhauled Control Rod Drive (CRD) Serial No 6595	CRD	RF01 Summary Report
N/A	1020130 13	Overhauled Control Rod Drive (CRD) Serial No A8915	CRD	RF01 Summary Report
N/A	1020130 14	Overhauled Control Rod Drive (CRD) Serial No 6543	CRD	RF01 Summary Report
N/A	1020130 15	Overhauled Control Rod Drive (CRD) Serial No A8460	CRD	RF01 Summary Report
N/A	1020130 16	Overhauled Control Rod Drive (CRD) Serial No A8740	CRD	RF01 Summary Report
N/A	1020130 17	Overhauled Control Rod Drive (CRD) Serial No A9539	CRD	RF01 Summary Report
N/A	1020130 18	Overhauled Control Rod Drive (CRD) Serial No A9582	CRD	RF01 Summary Report
N/A	1020130 19	Overhauled Control Rod Drive (CRD) Serial No A8745	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
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	RF01 Summary Report
N/A	MHX5 25	Overhauled Control Rod Drive (CRD) Serial No A4709	CRD	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

PLAN NO	WOT NO	COMPONENT NUMBER AND WORK DESCRIPTION	CODE COMP	R&R REPORTED IN
N/A	MYN6 48	Replaced Control Rod Drive (CRD) at Core Location 34-27	CRD	RF01 Summary Report
N/A	MYN6 49	Replaced Control Rod Drive (CRD) at Core Location 34-43	CRD	RF01 Summary Report
N/A	MYN6 50	Replaced Control Rod Drive (CRD) at Core Location 34-51	CRD	RF01 Summary Report
N/A	MYN6 51	Replaced Control Rod Drive (CRD) at Core Location 38-07	CRD	RF01 Summary Report
N/A	MYN6 52	Replaced Control Rod Drive (CRD) at Core Location 10-15	CRD	RF01 Summary Report
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
N/A	MYN6 55	Replaced Control Rod Drive (CRD) at Core Location 22-03	CRD	RF01 Summary Report
N/A	MYN6 56	Replaced Control Rod Drive (CRD) at Core Location 22-31	CRD	RF01 Summary Report
N/A	MYN6 57	Replaced Control Rod Drive (CRD) at Core Location 22-51	CRD	RF01 Summary Report
N/A	MYN6 58	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.

PLAN No 2-0980

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: Energy Northwest
(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
(c) Type Code Symbol Stamp: Not Applicable
(d) Certificate Of Authorization No.: Not Applicable
(e) Expiration Date: Not Applicable
4. Identification Of System: 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

Date: 06/25/01
Sheet: 1 Of 1
Unit: Not Applicable

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

ENERGY NORTHWEST

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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

Prepared By Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)
Signed By Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)
Date 6/26/01
Date 6/26/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ and employed by _____ have inspected the components described in this Owner's Report during the period _____ to _____ and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Not Required - Replacement 1" NPS And Smaller
Inspector's Signature
Commissions _____
National Board, State, and Endorsements
Date _____

PLAN No 2-1431

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: Energy Northwest
(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
(c) Type Code Symbol Stamp: Not Applicable
(d) Certificate Of Authorization No.: Not Applicable
(e) Expiration Date: Not Applicable
4. Identification Of System: Reactor Core Isolation Cooling (RCIC) System
5. (a) Applicable Construction Code: ASME Section III, Code Class 2, 1971 Edition with 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

Date: 09/13/00
Sheet: 1 of 1
Unit: Not Applicable

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

PLAN No 2-1431

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [ ] **Nominal Operating Pressure** [ ] **Other** [X] **None**

Test Pressure: Psig
Component Design Pressure: Psig
Test Temperature: ° F
Temperature: ° F

9. Remarks: See attached N-2 Code Data Report for the new replacement valve plug, Serial No PB9380-1.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

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

Date 9/13/00

Date 9/13/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ and employed by _____ _____ have inspected the components described in this Owner's Report during the period _____ to _____ and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Not Required - Replacement 1" NPS And Smaller
Inspector's Signature

Commissions _____
National Board, State, and Endorsements

Date _____

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

As Required by the Provisions of the ASME Code, Section III

Not to exceed One Day's Production

PLAN NO. 2-1431

Quality Supply

9/13/96

1. 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)

3. Location of installation: WNP-2, RICHLAND, WA 99352 (name and address)

4. Type

2V9938 REV A	SA-479-S31600	75.0 KSI	N/A	1996
(drawing no.)	(mat'l. spec. no.)	(tensile strength)	(CRN)	(year built)

5. ASME Code, Section III:

1971	SUMMER 1973	2	N/A
(edition)	(addenda date)	(class)	(Code Case no.)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A

7. Remarks: DESIGN: ASME B&PVC SECT III, 1971 EDITION,SUMMER 1973 ADDENDA, CLASS 2
OTHER: ASME B&PVC SECT III 1989 EDITION, NO ADDENDA, CLASS 2

8. Nom. thickness (in.) N/A Min. design thickness (in.) N/A Dia. ID (ft & in.) N/A Length overall (ft & in.) N/A

9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

	Part or Appurtenance Serial Number	Heat Number
(1)	PB9380-1	36644-1
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		
(11)		
(12)		
(13)		
(14)		
(15)		
(16)		
(17)		
(18)		
(19)	-	
(20)		
(21)		
(22)		
(23)		
(24)		
(25)		

	Part or Appurtenance Serial Number	Heat Number
(26)		
(27)		
(28)		
(29)		
(30)		
(31)		
(32)		
(33)		
(34)		
(35)		
(36)		
(37)		
(38)		
(39)		
(40)		
(41)		
(42)		
(43)		
(44)		
(45)		
(46)		
(47)		
(48)		
(49)		
(50)		

10. Design Pressure 1285 psi. Temp. 170 °F. Hydro. test pressure N/A (when applicable) at temp. °F

*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

CERTIFICATION OF DESIGN

Design specifications certified by JAMES F. HAGAN, JR. (when applicable) P.E. State WA Reg. no. 13579

Design report* certified by N/A (when applicable) P.E. State NA Reg. no. /NA

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization No. 1930 Expires 11-18-98

Date 8-28-96 Name FISHER CONTROLS INT'L INC (NPT Certificate Holder) Signed Daniel L Quinn (authorized representative)

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 IOWA and employed by HARTFORD S.B.I. & I. CO of HARTFORD, CONN have inspected these items described in this Data Report on 8-29-96 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 8-29-96 Signed Kent Cochran (Authorized Inspector) Commissions 822 IA. (Nat'l. Bd. (incl. endorsements) state or prov. and no.)

SATISFACTORY ✓ UNSATISFACTORY ____

[illegible] II 9/16/96

RECEIPT INSPECTOR / LEVEL / DATE

PLAN No 2-1486

ENERGY NORTHWEST

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

Date: 07/23/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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.

PLAN No 2-1486

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] *Pneumatic* [ ] *Nominal Operating Pressure* [ ] *Other* [X] *None*

Test Pressure: Psig *Test Temperature:* ° F

Component Design Pressure: Psig *Temperature:* ° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/14/01 *Date* 6/14/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ *and employed by* _____ _____ *have inspected the components described in this Owner's Report during the period* _____ *to* _____ *and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.*

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

Not Required - Replacement 1" NPS And Smaller
Inspector's Signature

Commissions _____
National Board, State, and Endorsements

Date _____

PLAN No 2-1548

ENERGY NORTHWEST

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

Date: 03/08/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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	WPPSS *	RCIC(1)-4CL2-P1	N/A	N/A	1984	----------	Yes, Code Class 2
RCIC-V-627	Borg Warner	80112	N/A	N/A	1983	Replacement	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.

NOTES -

1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
2) The existing ASME Code Stamped piping system in which the new 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.

PLAN No 2-1548

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [ ] Other [X] None
Test Pressure: Psig
Component Design Pressure: Psig
Test Temperature: ° F
Temperature: ° F

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

EPN No	Serial No
RCIC-V-627	80112
RCIC-V-628	79959

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement *conforms to the rules of the ASME Code, Section XI.*
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

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

Date 3/8/01

Date 3/8/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ *and employed by* _____ *have inspected the components described in this Owner's Report during the period* _____ *to* _____ *and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.*
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Not Required - Replacement 1" NPS And Smaller
Inspector's Signature

Commissions _____
National Board, State, and Endorsements

Date _____

As Required by the Provisions of the ASME Code, Section III, Div. 1 PLAN NO. 2-1548

1. Manufactured by Nuclear Valve Div., Borg Warner, 7500 Tyrone Ave., Van Nuys, Calif. 3000 George Washington Way
(Name and Address of N Certificate Holder)

2. Manufactured for Washington Public Power Supply Systems, Richland, Washington
(Name and Address of Purchaser or Owner)

3. Location of Installation Richland, Washington WPPSS Hanford #2 Job Site
(Name and Address)

4. Pump or Valve Y Globe Valve. Nominal Inlet Size 3/4 (inch) Outlet Size 3/4 (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	1500#	80107 thru 80128	N/A	76590-2	1	N/A	1983
(2)							
(3)							
(4)							
(5)		RCIC-V-627, S/N 80112					
(6)							
(7)			Valve Supply 3/8/01				
(8)							
(9)							
(10)							

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

6. Design Conditions 3600 (Pressure) psi 100 (Temperature) °F or Valve Pressure Class N/A (1)

7. Cold Working Pressure 3600 psi at 100°F.

8. Pressure Retaining Pieces

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

(1) For manually operated valves only.

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(d) Other Parts			
Backseat-Code 5E84	SA 564 Tv630	Jorgensen Steel	

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

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, Edition 1974, Addenda Winter '75 (Date), Code Case No. N/A, Date 11/21/83

Signed Nuclear Valve Div., Borg Warner (N Certificate Holder) by [signature]

Our ASME Certificate of Authorization No. N-1254 to use the N (N) symbol expires 10/27/84 (Date)

CERTIFICATION OF DESIGN

Design information on file at NVD of Borg Warner, 7500 Tyrone Ave., Van Nuys, Ca. 91409

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

Design specifications certified by (1) David J. Murphy

PE State Washington Reg. No. 12542

Stress analysis certified by (1) Byron E. Leonard

PE State CA Reg. No. E123

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by Lumbermen's Mutual Casualty of Long Grove, Illinois have inspected the pump, or valve, described in this Data Report on 9/30 1983, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

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

Date 12/1 2/30 1983

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. 2-1548

1. Manufactured by Nuclear Valve Div.,Borg Warner, 7500 Tyrone Ave., Van Nuys, Calif.
(Name and Address of N Certificate Holder)
2. Manufactured for Washington Public Power Supply Systems, 3000 George Washington Way Richland, Washington
(Name and Address of Purchaser or Owner)
3. Location of Installation Richland, Washington WPPSS Hanford #2 Job Site
(Name and Address)
4. Pump or Valve Y Globe Valve . Nominal Inlet Size 3/4 (inch) Outlet Size 3/4 (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	1500#	79951 thru	N/A	76590-2	1	N/A	1983
(2)		79970					
(3)							
(4)							
(5)							
(6)		RCIC-V-62B, S/N 79959					
(7)							
(8)						Initials 5	
(9)						3/8/01	
(10)							

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

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Disc-Code 1X20, 1T01, 1W10, 5F32	Stellite #6	Rex Precision	
(b) Forgings			
Body-Code 1V46	SA 105	Kawaguchi	

FOR INFORMATION ONLY

(1) For manually operated valves only.

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

BECHTEL

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(d) Other Parts			
Backseat-Code 4J86	SA 564 Ty 630	Jorgensen Steel	
4H70,5E84			

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

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. 1, Edition 1974, Addenda Winter '75 (Date), Code Case No. N/A Date 7/29/83

Signed Nuclear Valve Div.,Borg Warner (N Certificate Holder) by [signature]

Our ASME Certificate of Authorization No. N-1254 to use the N (N) symbol expires 10/27/84 (Date).

CERTIFICATION OF DESIGN

Design information on file at NVD of Borg Warner, 7500 Tyrone Ave., Van Nuys, Ca. 91409

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

Design specifications certified by (1) David J. Murphy

PE State Washington Reg. No. 12542

Stress analysis certified by (1) Byron H. Leonard

PE State CA Reg. No. E123

FOR INFORMATION ONLY

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by Lumbermen's Mutual Casualty of Long Grove, Illinois have inspected the pump, or valve, described in this Data Report on 7/29 19 83, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

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

Date 7/29 19 83

[signature] (Inspector)

Commissions 1275 CA. NB 7669 (Nat'l Bd., State, Prov. and No.)

BECHTEL

653

PLAN No 2-1568

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: Energy Northwest
(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
(c) Type Code Symbol Stamp: Not Applicable
(d) Certificate Of Authorization No.: Not Applicable
(e) Expiration Date: Not Applicable
4. Identification Of System: Main Steam (MS) System
5. (a) Applicable Construction Code: ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: N-416-1
6. Identification Of Components Repaired Or Replaced And Replacement Components

Date: 06/27/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS(1)-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.

NOTES -

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

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [X] Other [ ] None

Test Pressure: 935 Psig   Test Temperature: 530° F

Component Design Pressure: 1250 Psig   Temperature: 575° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/27/01   Date 6/27/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 4/17/01 to 7/24/01 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[signature]
Inspector's Signature

Commissions 7486W/7486 WIS II
National Board, State, and Endorsements

Date 7/24/01

PLAN No 2-1597

ENERGY NORTHWEST

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

Date: 07/23/99
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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	WPPSS *	RCC(5)-2-P1	N/A	N/A	1983	----------	Yes, Code Class 3
RCC-V-610	Borg Warner	13460	N/A	N/A	1977	Replaced	Yes, Code Class 1
RCC-V-610	Borg Warner	56639	N/A	N/A	1980	Replacement	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.

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 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

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [ ] **Nominal Operating Pressure** [ ] **Other** [X] **None**

Test Pressure: Psig **Test Temperature:** ° F

Component Design Pressure: Psig **Temperature:** ° F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve RCC-V-610, Serial No 56639.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 1/24/01

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

Date 1/24/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ and employed by _____ have inspected the components described in this Owner's Report during the period _____ to _____ and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Not Required - Replacement 1" NPS And Smaller
Inspector's Signature

Commissions _____
National Board, State, and Endorsements

Date _____

VEDC

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

1. Manufactured by Nuclear Valve Div., Borg Warner, 7500 Tyrone Ave., Van Nuys, Calif.
(Name and Address of N Certificate Holder)
2. Manufactured for Bovee & Crail/G.E.R.I., P.O. Box 1040, Richland, Washington 99352
(Name and Address of Purchaser or Owner)
3. Location of Installation Richland, Washington WPPSS Hanford #2 Job Site
(Name and Address)
4. Pump or Valve Globe Valve. Nominal Inlet Size 3/4 (inch) Outlet Size 3/4 (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	1500#	56628, 56632,	N/A	76590-3	1	N/A	1980
(2)		56634, 56636					
(3)		Thru 56639					
(4)							
(5)		RCC-V-610, S/N 56639					
(6)							
(7)							
(8)		Rudolf Smith 1/24/01					
(9)							
(10)							

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

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Disc-Code 4D32	Colmonoy #4	Rex Precision	
(b) Forgings			
Body-Code 1V46	ASME SA105	Kawaguchi Dropforging Co.	

(1) For manually operated valves only.

VEDC [illegible]-16286

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

(10/77) This form (E00037) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

2

2 1 9 6 0 1 3 2

FORM NPV-1 (Back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(d) Other Parts			
Backseat-Code	ASME SA564 Type 630		
1X08		Ducommun Metals Co.	
1W30		Jorgensen	

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

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. I., Edition 1974, Addenda Summer '75 (Date), Code Case No. N/A, Date 3/28/80

Signed Nuclear Valve Div., Borg Warner (N Certificate Holder) by Carla M. Guastti

Our ASME Certificate of Authorization No. N-1254 to use the N (N) symbol expires 10/27/81 (Date)

CERTIFICATION OF DESIGN

Design information on file at NVD of Borg Warner, 7500 Tyrone Ave., Van Nuys, Ca. 91409

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

Design specifications certified by (1) David J. Murphy

PE State Washington Reg. No. 12542

Stress analysis certified by (1) Liwei Chen

PE State CA. Reg. No. 18581

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by Lumbermen's Mutual Casualty of Long Grove, Illinois have inspected the pump, or valve, described in this Data Report on 4/7 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, Section III.

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

Date 4/7 1980

(Inspector) Commissions 1275 CA.

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

2 1296 01333

WBG BR 215-16286

PLAN No 2-1633

ENERGY NORTHWEST

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

Date: 06/13/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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-326A	Dragon Valves	PB1244	N/A	N/A	1995	Replaced	Yes, Code Class 2
CAS-V-326A	Dragon Valves	PB1323	N/A	N/A	1999	Replacement	Yes, Code Class 2

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.

NOTES -

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.

PLAN No 2-1633

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [ ] Other [X] None

Test Pressure: Psig Test Temperature: ° F

Component Design Pressure: Psig Temperature: ° F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve CAS-V-326A, Serial No PB1323.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/14/01 Date 6/14/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ and employed by _____ _____ have inspected the components described in this Owner's Report during the period _____ to _____ and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Not Required - Replacement 1" NPS And Smaller
Inspector's Signature

Commissions _____
National Board, State, and Endorsements

Date _____

PLAN NO. Z-1633 2

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

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

1. Manufactured by Dragon Valves, Inc., 13457 Excelsior Dr., Norwalk, CA. 90650
(Name and Address of N Certificate Holder)
2. Manufactured for Energy Northwest, P.O. Box 968, Richland, WA. 99352
(Name and Address of Purchaser or Owner)
3. Location of Installation WNP-2 North Power Plant Loop, Richland, WA. 99352
(Name and Address)
4. Pump or Valve Valve. Nominal Inlet Size 3/8 (inch) Outlet Size 3/8 (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	670N056SW	PB1321	N/A	17263	2	N/A	1999
(2)		THru		Rev. N/C			
(3)		PB1328					
(4)							
(5)							
(6)		CAS-V-326A, S/N PB1323					
(7)							
(8)							
(9)		Phillip Swab					
(10)		6/11/01					

5. Globe Valve (8 Pcs.)
(Brief description of service for which equipment was designed)

6. Design Conditions 200 (Pressure) psi 340 (Temperature) °F or Valve Pressure Class 900 (1)
7. Cold Working Pressure 2160 psi at 100°F.
8. Pressure Retaining Pieces

	Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings	N/A			
(b) Forgings	N/A			

(1) For manually operated valves only.

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

FORM NPV-1 (Back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(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

9. Hydrostatic test 3250 psi. Disk Differential test pressure 2400 psi.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. 1., Edition 1974, Addenda S'75 (Date), Code Case No. N/A. Date November 10, 1999

Signed Dragon Valves, Inc. (N Certificate Holder) by Mark A. Snyder

Our ASME Certificate of Authorization No. N-1033 to use the N (N) symbol expires 5/6/02 (Date).

CERTIFICATION OF DESIGN

Design information on file at Energy Northwest

Stress analysis report (Class 1 only) on file at N/A

Design specifications certified by (1) Abbas A. Mostala

PE State WA Reg. No. 28777

Stress analysis certified by (1) N/A

PE State _____ Reg. No. _____

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by H.S.B. INSP. & INS. CO. of HARTFORD, CT. have inspected the pump, or valve, described in this Data Report on 11 10 19 99, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

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

Date 11 10 19 99

Cirilo F. Reyes (Inspector)

Commissions CA 1526 NB 9435 N' (Nat'l Bd., State, Prov. and No.)

PLAN No 2-1634

ENERGY NORTHWEST

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

Date: 06/13/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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.

NOTES -

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.

PLAN No 2-1634

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [ ] Other [X] None

Test Pressure: Psig — Test Temperature: ° F

Component Design Pressure: Psig — Temperature: ° F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve CAS-V-326B, Serial No PB1324.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/14/01 *Date* 6/14/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ *and employed by* _____ _____ *have inspected the components described in this Owner's Report during the period* _____ *to* _____ *and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.*

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

Not Required - Replacement 1" NPS And Smaller — Inspector's Signature

Commissions _____ — National Board, State, and Endorsements

Date _____

PLAN NO. 2-1634 Z

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

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

1. Manufactured by Dragon Valves, Inc., 13457 Excelsior Dr., Norwalk, CA. 90650
(Name and Address of N Certificate Holder)
2. Manufactured for Energy Northwest, P.O. Box 968, Richland, WA. 99352
(Name and Address of Purchaser or Owner)
3. Location of Installation WNP-2 North Power Plant Loop, Richland, WA. 99352
(Name and Address)
4. Pump or Valve Valve. Nominal Inlet Size 3/8 (inch) Outlet Size 3/8 (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	670N056SW	PB1321	N/A	17263	2	N/A	1999
(2)		THru		Rev. N/C			
(3)		PB1328					
(4)							
(5)							
(6)		CAS-V-326B, S/N PB1324					
(7)							
(8)							
(9)		Pradip Gupt					
(10)		6/11/01					

5. Globe Valve (8 Pcs.)
(Brief description of service for which equipment was designed)

6. Design Conditions 200 (Pressure) psi 340 (Temperature) °F or Valve Pressure Class 900 (1)
7. Cold Working Pressure 2160 psi at 100°F.
8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings N/A			
(b) Forgings N/A			

(1) For manually operated valves only.

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

FORM NPV-1 (Back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(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

9. Hydrostatic test 3250 psi. Disk Differential test pressure 2400 psi.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. I., Edition 1974, Addenda S'75 (Date), Code Case No. N/A. Date November 10, 1999

Signed Dragon Valves, Inc. (N Certificate Holder) by Mark A. Snyder

Our ASME Certificate of Authorization No. N-1033 to use the N (N) symbol expires 5/6/02 (Date).

CERTIFICATION OF DESIGN

Design information on file at Energy Northwest

Stress analysis report (Class 1 only) on file at N/A

Design specifications certified by (1) Abbas A. Mostala

PE State WA Reg. No. 28777

Stress analysis certified by (1) N/A

PE State _____ Reg. No. _____

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by H.S.B. INSP. & INS. CO. of HARTFORD, CT. have inspected the pump, or valve, described in this Data Report on 11-10 19 99, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

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

Date 11-10 19 99

David F. Reyes (Inspector) Commissions CA 1526 NB 9435 N' (Nat'l Bd., State, Prov. and No.)

PLAN No 2-1635

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: Energy Northwest
(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
(c) Type Code Symbol Stamp: Not Applicable
(d) Certificate Of Authorization No.: Not Applicable
(e) Expiration Date: Not Applicable
4. Identification Of System: Control 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

Date: 06/13/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
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.

NOTES -

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.

PLAN No 2-1635

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [ ] Other [X] None

Test Pressure: Psig — Test Temperature: ° F

Component Design Pressure: Psig — Temperature: ° F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve CAS-V-326C, Serial No PB1322.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/14/01

Date 6/14/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ and employed by _____ have inspected the components described in this Owner's Report during the period _____ to _____ and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Not Required - Replacement 1" NPS And Smaller
Inspector's Signature

Commissions _____
National Board, State, and Endorsements

Date _____

PLAN NO. 2-1635 2

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

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

1. Manufactured by Dragon Valves, Inc., 13457 Excelsior Dr., Norwalk, CA. 90650
(Name and Address of N Certificate Holder)
2. Manufactured for Energy Northwest, P.O. Box 968, Richland, WA. 99352
(Name and Address of Purchaser or Owner)
3. Location of Installation WNP-2 North Power Plant Loop, Richland, WA. 99352
(Name and Address)
4. Pump or Valve Valve . Nominal Inlet Size 3/8 (inch) Outlet Size 3/8 (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	670N056SW	PB1321	N/A	17263	2	N/A	1999
(2)		THru		Rev. N/C			
(3)		PB1328					
(4)							
(5)							
(6)	CAS-V-326C, S/N PB 1322						
(7)							
(8)							
(9)							
(10)							

5. Globe Valve (8 Pcs.)
(Brief description of service for which equipment was designed)

6. Design Conditions 200 (Pressure) psi 340 (Temperature) °F or Valve Pressure Class 900 (1)
7. Cold Working Pressure 2160 psi at 100°F.
8. Pressure Retaining Pieces

	Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings	N/A			
(b) Forgings	N/A			

(1) For manually operated valves only.

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

FORM NPV-1 (Back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(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

9. Hydrostatic test 3250 psi. Disk Differential test pressure 2400 psi.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. I., Edition 1974, Addenda S'75 (Date). Code Case No. N/A. Date November 10, 1999

Signed Dragon Valves, Inc. (N Certificate Holder) by Mark A. Snyder

Our ASME Certificate of Authorization No. N-1033 to use the N (N) symbol expires 5/6/02 (Date).

CERTIFICATION OF DESIGN

Design information on file at Energy Northwest

Stress analysis report (Class 1 only) on file at N/A

Design specifications certified by (1) Abbas A. Mostala

PE State WA Reg. No. 28777

Stress analysis certified by (1) N/A

PE State _____ Reg. No. _____

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by H.S.B. INSP. & INS. CO. of HARTFORD, CT. have inspected the pump, or valve, described in this Data Report on 11.10 19 99, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

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

Date 11.10 19 99

Cirilo F. Reyes (Inspector) Commissions CA 1526 NB 9435 N (Nat'l Bd., State, Prov. and No.)

PLAN No 2-1636

ENERGY NORTHWEST

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

Date: 06/13/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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.

NOTES -

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.

PLAN No 2-1636

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [ ] Other [X] None

Test Pressure: Psig — Test Temperature: ° F

Component Design Pressure: Psig — Temperature: ° F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve CAS-V-326D, Serial No PB1321.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/14/01

Date 6/14/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ *and employed by* _____ _____ *have inspected the components described in this Owner's Report during the period* _____ *to* _____ *and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.*

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

Not Required - Replacement 1" NPS And Smaller
Inspector's Signature

Commissions _____
National Board, State, and Endorsements

Date _____

PLAN NO. 2-1636 2

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

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

1. Manufactured by Dragon Valves, Inc., 13457 Excelsior Dr., Norwalk, CA. 90650
(Name and Address of N Certificate Holder)
2. Manufactured for Energy Northwest, P.O. Box 968, Richland, WA. 99352
(Name and Address of Purchaser or Owner)
3. Location of Installation WNP-2 North Power Plant Loop, Richland, WA. 99352
(Name and Address)
4. Pump or Valve Valve. Nominal Inlet Size 3/8 (inch) Outlet Size 3/8 (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	670N056SW	PB1321	N/A	17263	2	N/A	1999
(2)		THru		Rev. N/C			
(3)		PB1328					
(4)							
(5)							
(6)		CAS-V-326D, S/N PB1321					
(7)							
(8)							
(9)		Chuck Swab					
(10)		6/12/01					

5. Globe Valve (8 Pcs.)
(Brief description of service for which equipment was designed)

6. Design Conditions 200 (Pressure) psi 340 (Temperature) °F or Valve Pressure Class 900 (1)
7. Cold Working Pressure 2160 psi at 100°F.
8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings N/A			
(b) Forgings N/A			

(1) For manually operated valves only.

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

FORM NPV-1 (Back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(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

9. Hydrostatic test 3250 psi. Disk Differential test pressure 2400 psi.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. I., Edition 1974, Addenda S'75 (Date), Code Case No. N/A. Date November 10, 1999

Signed Dragon Valves, Inc. (N Certificate Holder) by Mark A. Snyder

Our ASME Certificate of Authorization No. N-1033 to use the N (N) symbol expires 5/6/02 (Date).

CERTIFICATION OF DESIGN

Design information on file at Energy Northwest

Stress analysis report (Class 1 only) on file at N/A

Design specifications certified by (1) Abbas A. Mostala

PE State WA Reg. No. 28777

Stress analysis certified by (1) N/A

PE State _____ Reg. No. _____

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by H.S.B. INSP. & INS. CO. of HARTFORD, CT. have inspected the pump, or valve, described in this Data Report on 11-10 19 99, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

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

Date 11-10 19 99

Danilo F. Reyes (Inspector) Commissions CA 1526 NB 9435 N' (Nat'l Bd., State, Prov. and No.)

PLAN No 2-1647

ENERGY NORTHWEST

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

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

Date: 06/28/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-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.

NOTES -

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.

PLAN No 2-1647

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [ ] Other [X] None

Test Pressure: Psig
Component Design Pressure: Psig
Test Temperature: ° F
Temperature: ° F

9. Remarks: See attached NF-2 Code Data Reports for the following replacement rigid struts:

Support No	Serial No
RHR-325	NA-2765-002-2
RHR-326(E)	NA-2765-001-13
RHR-326(W)	NA-2765-001-2
RHR-333	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 Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

Prepared By Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)
Date 6/28/01

Signed By Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)
Date 6/28/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington *and employed by* Factory Mutual Insurance Company of Johnston, Rhode Island *have inspected the components described in this Owner's Report during the period* 5/15/01 *to* 7/24/01 *and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.*
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions 7486 w/ 7486 NIS-1

National Board, State, and Endorsements

Date 7/24/01

FORM NF-2 NPT CERTIFICATE HOLDERS' PARTIAL DATA REPORT FOR PARTS FOR COMPONENT SUPPORT*
As Require[d] the Provisions of the ASME Code Rules, [Sec]tion III, Division 1 PLAN No. 2-1647

1. Manufactured by NPS INDUSTRIES, INC., 10420 METRIC BOULEVARD, AUSTIN, TX 78758
(Name and address of NPT Certificate Holder)

2. Manufactured for WASHINGTON PUBLIC POWER SUPPLY SYSTEM, P.O. BOX 968, RICHLAND, WA 99352
(Name and address of purchaser or owner)

3. Location of Installation WNP-2 OPS WHS COMPLEX, WHS#1 N. PWR. PLANT LOOP, RICHLAND, WA 99352

4.

	(a) Part Serial No.	(b) Canadian Registration No.	(c) Part Drawing No.	(d) Description of Part	(e) Class	(f) National Board No.	(g) Year Built
(1)	*	N/A	SPN-040	REPLACEMENT	1	N/A	1990
(2)			REV. 0	SNUBBER			
(3)				SMR-1/4			
(4)				RHR-326(E), S/N NA-2765-001-13			
(5)				RHR-326(W), S/N NA-2765-001-2			
(6)	*NA-2765-001-1						
(7)	THRU			Relief Supports 6/28/01			
(8)	NA-2765-001-15						
(9)							
(10)							

VERIFIED & ACCEPTED QSI
LEVEL II R.I. Inspector Date 5-18-90

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 (Date), Code Case no. N247.

Date APRIL 25 19 90. Signed NPS INDUSTRIES, INC. (NPT Certificate Holder) by SANDY REYNOLDS

Our ASME Certificate of Authorization No. N-2689 to use the NPT (NPT) Symbol expires JULY 12, 1991 (Date)

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 TEXAS and employed by COMMERCIAL UNION of BOSTON, MASSACHUSETTS have inspected the parts for the component supports described in this Data Report on 4/25, 1990, 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.

Date 4/25/90

Signed Gene D. Powell Commissions Tex 803 (Nat'l Board, State, Province, and No.)

*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.

FORM NF-2 NPT CERTIFICATE HOLDERS' PARTIAL DATA REPORT FOR PARTS FOR COMPONENT SUPPORT*
As Required by the Provisions of the ASME Code Rules, Section III, Division 1 PLAN No. 2-1647.

1. Manufactured by NPS INDUSTRIES, INC., 10420 METRIC BOULEVARD, AUSTIN, TX 78758
(Name and address of NPT Certificate Holder)

2. Manufactured for WASHINGTON PUBLIC POWER SUPPLY SYSTEM, P.O. BOX 968, RICHLAND, WA 99352
(Name and address of purchaser or owner)

3. Location of Installation WNP-2 OPS WHS COMPLEX, WHS#1 N. PWR. PLANT LOOP, RICHLAND, WA 99352

4.

	(a) Part Serial No.	(b) Canadian Registration No.	(c) Part Drawing No.	(d) Description of Part	(e) Class	(f) National Board No.	(g) Year Built
(1)	*	N/A	SPN-040	REPLACEMENT	1	N/A	1990
(2)			REV. 0	SNUBBER			
(3)				SMR-1/2			
(4)				RHR-325, S/N NA-2765-002-2			
(5)				RHR-333, S/N NA-2765-002-12			
(6)	*NA-2765-002-1						
(7)	THRU						
(8)	NA-2765-002-15						
(9)							
(10)							

Shelly Bries 6/28/01

VERIFIED & ACCEPTED
LEVEL II R.I. Inspector Date 5/18/90

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 (Date), Code Case no. N247.

Date APRIL 25 19 90. Signed NPS INDUSTRIES, INC. (NPT Certificate Holder) by SANDY REYNOLDS

Our ASME Certificate of Authorization No. N-2689 to use the NPT (NPT) Symbol expires JULY 12, 1991 (Date)

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 TEXAS and employed by COMMERCIAL UNION of BOSTON, MASSACHUSETTS have inspected the parts for the component supports described in this Data Report on 4/25, 19 90, 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.

Date 4/25/90

Signed [signature] Commissions Tex 803 (Nat'l Board, State, Province, and No.)

*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.

PLAN No 2-1648

ENERGY NORTHWEST

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

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

Date: 06/28/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-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.

NOTES -

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.

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [ ] **Nominal Operating Pressure** [ ] **Other** [X] **None**

Test Pressure: Psig **Test Temperature:** ° F

Component Design Pressure: Psig **Temperature:** ° F

9. Remarks: See attached NF-2 Code Data Reports for the following replacement rigid struts:

Support No	Serial No
RHR-442	NA-2765-002-9
RHR-443	NA-2765-002-8
RHR-448	NA-2765-002-10
RHR-453	NA-2765-001-3

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/28/01 ***Date*** 6/28/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 5/15/01 ***to*** 7/24/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***

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

[signature]
Inspector's Signature

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

Date 7/24/01

PLAN No. 2-1648

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

As Require[illegible] the Provisions of the ASME Code Rules, [illegible]ion III, Division 1

1. Manufactured by NPS INDUSTRIES, INC., 10420 METRIC BOULEVARD, AUSTIN, TX 78758
(Name and address of NPT Certificate Holder)

2. Manufactured for WASHINGTON PUBLIC POWER SUPPLY SYSTEM, P.O. BOX 968, RICHLAND, WA 99352
(Name and address of purchaser or owner)

3. Location of Installation WNP-2 OPS WHS COMPLEX, WHS#1 N. PWR. PLANT LOOP, RICHLAND, WA 99352

4.

	(a) Part Serial No.	(b) Canadian Registration No.	(c) Part Drawing No.	(d) Description of Part	(e) Class	(f) National Board No.	(g) Year Built
(1)	*	N/A	SPN-040	REPLACEMENT	1	N/A	1990
(2)			REV. 0	SNUBBER			
(3)				SMR-1/4			
(4)			RHR-453, S/N NA-2765-001-3				
(5)							
(6)	*NA-2765- 001-1			[signature]			
(7)	THRU			6/28/01			
(8)	NA-2765-001-15						
(9)							
(10)							

VERIFIED & ACCEPTED [signature]
LEVEL II R.I. Inspector Date 5-18-90

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 (Date)
Code Case no. N247.

Date APRIL 25 19 90. Signed NPS INDUSTRIES, INC. (NPT Certificate Holder) by [signature] SANDY REYNOLDS

Our ASME Certificate of Authorization No. N-2689 to use the NPT (NPT) Symbol expires JULY 12, 1991 (Date)

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 TEXAS and employed by COMMERCIAL UNION of BOSTON, MASSACHUSETTS have inspected the parts for the component supports described in this Data Report on 4/25, 19 90, 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.

Date 4/25/90

Signed [signature] Commissions Tex 803
(Nat'l Board, State, Province, and No.)

*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.

FORM NF-2 NPT CERTIFICATE HOLDERS' PARTIAL DATA REPORT FOR PARTS FOR COMPONENT SUPPORT*
As Require y the Provisions of the ASME Code Rules, tion III, Division 1 PLAN No. 2-1648

1. Manufactured by NPS INDUSTRIES, INC., 10420 METRIC BOULEVARD, AUSTIN, TX 78758
(Name and address of NPT Certificate Holder)

2. Manufactured for WASHINGTON PUBLIC POWER SUPPLY SYSTEM, P.O. BOX 968, RICHLAND, WA 99352
(Name and address of purchaser or owner)

3. Location of Installation WNP-2 OPS WHS COMPLEX, WHS#1 N. PWR. PLANT LOOP, RICHLAND, WA 99352

4.

	(a) Part Serial No.	(b) Canadian Registration No.	(c) Part Drawing No.	(d) Description of Part	(e) Class	(f) National Board No.	(g) Year Built
(1)	*	N/A	SPN-040	REPLACEMENT	1	N/A	1990
(2)			REV. 0	SNUBBER			
(3)				SMR-1/2			
(4)			RHR-442, S/N	NA-2765-002-9			
(5)			RHR-443, S/N	NA-2765-002-8			
(6)	*NA-2765-002-1		RHR-448, S/N	NA-2765-002-10			
(7)	THRU						
(8)	NA-2765-002-15		[signature]	VERIFIED & ACCEPTED [signature]			
(9)			6/28/01	LEVEL II		R.I. Inspector	Date 5/18/90
(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 (Date), Code Case no. N247.

Date APRIL 25 19 90. Signed NPS INDUSTRIES, INC. (NPT Certificate Holder) by [signature] SANDY REYNOLDS

Our ASME Certificate of Authorization No. N-2689 to use the NPT (NPT) Symbol expires JULY 12, 1991 (Date)

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 TEXAS and employed by COMMERCIAL UNION of BOSTON, MASSACHUSETTS have inspected the parts for the component supports described in this Data Report on 4/25, 19 90, 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.

Date 4/25/90

Signed [signature] Commissions Tex 803
(Nat'l Board, State, Province, and No.)

*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.

(10/77) This form (E00076) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

PLAN No 2-1656

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** Residual Heat Removal (RHR) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with 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**

Date: 08/07/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
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.

PLAN No 2-1656

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] *Pneumatic* [ ] *Nominal Operating Pressure* [X] *None* [ ]

Test Pressure: 150 Psig
Component Design Pressure: 500 Psig
Test Temperature: 69° F
Temperature: 480° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement *conforms to the rules of the ASME Code, Section XI.*
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

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

Date 8/16/01

Date 8/16/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington *and employed by* Factory Mutual Insurance Company of Johnston, Rhode Island *have inspected the components described in this Owner's Report during the period* _____ *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.

See Note 1
Inspector's Signature

Commissions _____
National Board, State, and Endorsements

Date _____

PLAN No 2-1663

ENERGY NORTHWEST

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

Date: 04/16/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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	WPPSS *	SW(21)-2-P1	N/A	N/A	1983	----------	Yes, Code Class 3
CCH-RD-1A	BS&B	Lot No 87090001-1	N/A	N/A	1987	Replaced	No, Code Class 3
CCH-RD-1A	BS&B	Lot No 87090001-1	N/A	N/A	1987	Replacement	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.

PLAN No 2-1663

ENERGY NORTHWEST

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

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

Test Pressure: 2.6 Psig
Component Design Pressure: 309 Psig
Test Temperature: 54.5° F
Temperature: 150° F

9. Remarks: See attached NR-1 Code Data Report for the new replacement rupture disc.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement ***conforms to the rules of the ASME Code, Section XI.***
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

Date 4/16/01

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

Date 4/16/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 3-29-01 ***to*** 4-18-01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

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

Date 4-18-01

PLAN NO. 2-1663
CCH-RD-1A
[signature]
4/12/01

BS&B
SAFETY SYSTEMS

CUSTOMER: WASHINGTON PUBLIC POWER
P.O.#: 86553

FORM NR-1
DATA REPORT OF RUPTURE DISKS
As Required by the Provisions of the ASME Code Rules, Section III, Div. 1

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1. Manufactured by: BS&B Safety Systems, Inc., Tulsa, Oklahoma
(Name and address of Manufacturer)

IDENTIFICATION OF RUPTURE DISK

2. Type of Style: BV Lot No.: 87090001-1
3. Disk-Dimensional Characteristics:
   Size: 3" Capacity: 10,510 SCFM Air
4. Material Specification: ASTM A-167, 316 SS ANNEAL.
5. Drawing No.: N/A
6. Burst Pressure: 103.95 PSIG Max. 94.05 PSIG Min.
7. Coincident Disk Temperature: 100 DEG F
8. Element used in test: AIR
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&B Safety Systems, Inc.

APPROVED BY: [signature], Quality Control Manager
Jay B. Vance

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

BS&B SAFETY SYSTEMS, INC. • 7455 E. 46th Street • P.O. Box 470590 • Tulsa, Ok. 74147-0590 • Phone 918/622-5950
TELEX 49-2479 BS&B GEN TUL • FAX 918/665-3905

PLAN No 2-1666

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest
   Address: 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**

Date: 02/11/00
Sheet: 1 of 1
Unit: WNP-2

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).

PLAN No 2-1666

ENERGY NORTHWEST

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

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

Test Pressure: Psig **Test Temperature:** ° F

Component Design Pressure: Psig **Temperature:** ° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 2/11/00 ***Date*** 2/11/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Norwood, Massachusetts ***have inspected the components described in this Owner's Report during the period*** 2-8-99 ***to*** 2/14/00 ***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.

Inspector's Signature ***Commissions*** 7486w / 7486 NI IS

National Board, State, and Endorsements

Date 2/14/00

PLAN No 2-1667

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: Energy Northwest
(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
(c) Type Code Symbol Stamp: Not Applicable
(d) Certificate Of Authorization No.: Not Applicable
(e) Expiration Date: Not Applicable
4. Identification Of System: Reactor Core Isolation Cooling (RCIC) System
5. (a) Applicable Construction Code: ASME Section III, Code Class 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

Date: 05/01/01
Sheet: 1 Of 1
Unit: Not Applicable

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.

PLAN No 2-1667

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [ ] Other [X] None

Test Pressure: Psig
Component Design Pressure: Psig
Test Temperature: ° F
Temperature: ° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement **conforms to the rules of the ASME Code, Section XI.**
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

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

Date 5/01/01

Date 5/01/01

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** _____ **to** _____ **and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.**
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Not Required - Replacement 1" NPS And Smaller
Inspector's Signature

Commissions _____
National Board, State, and Endorsements

Date _____

PLAN No 2-1668

ENERGY NORTHWEST

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

Date: 04/10/00
Sheet: 1 of 1
Unit: WNP-2

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

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.

PLAN No 2-1668

ENERGY NORTHWEST

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

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

Test Pressure: Psig
Component Design Pressure: Psig
Test Temperature: ° F
Temperature: ° F

9. Remarks: See attached NPV-1 Code Data Report for the new replacement valve Serial No PB1194.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement **conforms to the rules of the ASME Code, Section XI.**
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

Prepared By Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)
Date 4/10/00

Signed By Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)
Date 4/10/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ **and employed by** _____ _____ **have inspected the components described in this Owner's Report during the period** _____ **to** _____ **and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.**
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Not Required - Replacement 1" NPS And Smaller
Inspector's Signature

Commissions _____
National Board, State, and Endorsements

Date _____

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. 21668

1. Manufactured by Dragon Valves, Inc., 13457 Excelsior Dr., Norwalk, CA. 90650
(Name and Address of N Certificate Holder)

2. Manufactured for Washington Public Power Sup. Sys. P.O. Box 968 Richland, WA. 99352-0968
(Name and Address of Purchaser or Owner)

3. Location of Installation WNP 2 Site Richland WA 99352
(Name and Address)

4. Pump or Valve Valve. Nominal Inlet Size 1/2 (inch) Outlet Size 1/2 (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	7N058SWD	PB1194	N/A	10580	2	N/A	1993
(2)		thru		Rev. C			
(3)		PB1204					
(4)							
(5)		SERIAL NO. PB1194					
(6)							
(7)							
(8)				Rudolf Engels 4/10/80			
(9)							
(10)							

5. Instrument Valve (11 Pcs.)
(Brief description of service for which equipment was designed)

6. Design Conditions 3600 (Pressure) psi 100 (Temperature) °F or Valve Pressure Class 1500 (1)

7. Cold Working Pressure 3600 psi at 100°F.

8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings N/A			
(b) Forgings			
HT.AJ9461	ASME SA182 GR. F316	Ajax Forge Co.	Body
HT.A19167	ASME SA182 GR. F316	Ajax Forge Co.	Bonnet Yoke

(1) For manually operated valves only.

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

Parts	Materials Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(d) Other Parts			
HT.853543	ASME SA564 GR. 630	Carpenter Tech.	Disc

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

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. 1., Edition 1974, Addenda S 75 (Date), Code Case No. N/A. Date August 23. 1993.

Signed DRAGON VALVES INC. (N Certificate Holder) by R L Singer

Our ASME Certificate of Authorization No. N 1033 to use the N (N) symbol expires 10/1/93 (Date).

CERTIFICATION OF DESIGN

Design information on file at Washnington Public Power Sup. Sys.

Stress analysis report (Class 1 only) on file at N/A

Design specifications certified by (1) David J. Murphy

PE State WA. Reg. No. 12542

Stress analysis certified by (1) N/A

PE State ____ Reg. No. ____

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by H.S.B. INSP. & INS. CO. of HARTFORD CT. have inspected the pump, or valve, described in this Data Report on AUGUST 24 19 93, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

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

Date 8-24 19 93

(Inspector) Commissions CA 1716 (Nat'l Bd., State, Prov. and No.)

PLAN No 2-1669

ENERGY NORTHWEST

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

Date: 07/06/00
Sheet: 1 of 2
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** Main Steam (MS) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 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 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 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 (Old Serial No N93184-33-0065)	Reject	_____	Scrapped
2	N97498-33-0068 (Old Serial No N93184-33-0068)	Accept	_____	Accept
3	N97498-33-0070 (Old Serial No N93184-33-0070)	Accept	_____	Accept
4	N97498-33-0074 (Old Serial No N93184-33-0074)	Accept	_____	Accept
5	N97498-42-0104 (Old Serial No N93184-42-0104)	Reject	Accept	Accept
6	N97498-44-0107 (Old Serial No N93184-44-0107)	Accept	_____	Accept
7	N97498-44-0114 (Old Serial No N93184-44-0114)	Reject	Accept	Accept

Continued on Sheet 2 of 2

PLAN No 2-1669

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [ ] Other [X] None

Test Pressure: Psig **Test Temperature:** °F

Component Design Pressure: Psig **Temperature:** °F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 7/6/00

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

Date 7/6/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1-17-00 to 7-19-00 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[signature]
Inspector's Signature

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

Date 7/19/00

PLAN No 2-1669

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: Energy Northwest
(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
(c) Type Code Symbol Stamp: Not Applicable
(d) Certificate Of Authorization No.: Not Applicable
(e) Expiration Date: Not Applicable
4. Identification Of System: Main Steam (MS) System
5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with 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

Date: 07/06/00
Sheet: 2 of 2
Unit: Not Applicable

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

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

PLAN No 2-1670

ENERGY NORTHWEST

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

Date: 06/27/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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.

PLAN No 2-1670

ENERGY NORTHWEST

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

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

Test Pressure: 935 Psig
Component Design Pressure: 2160 Psig
Test Temperature: 530° F
Temperature: 700° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement ***conforms to the rules of the ASME Code, Section XI.***
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

Prepared By Kuldip Singh - Program Lead Engineer (PLE) ***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 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*** 6/19/01 ***to*** 7/27/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this Inspection.

Inspector's Signature ***Commissions*** 7486 W / 7486 NB S IS
National Board, State, and Endorsements

Date 7/24/01

PLAN No 2-1671

ENERGY NORTHWEST

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

Date: 06/16/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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	WPPSS *	SLC(2)-3S-P1	N/A	N/A	1983	----------	Yes, Code Class 2
SLC-V-16	Borg Warner	14082	N/A	N/A	1976	Replaced	Yes, Code Class 2
SLC-V-16	Borg Warner	28839	N/A	N/A	1978	Replacement	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.

PLAN No 2-1671

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [ ] **Nominal Operating Pressure** [X] **Other** [ ] **None**

Test Pressure: 1240 Psig
Component Design Pressure: 1400 Psig
Test Temperature: 82.6° F
Temperature: 150° F

9. 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
Kuldip Singh - Program Lead Engineer (PLE)

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

Date 6/16/01

Date 6/16/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 1/17/00 ***to*** 7/10/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions 7486W/7486 NB IA
National Board, State, and Endorsements

Date 7/10/01

PLAN NO. 2-1671

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

As Required by the Provisions of the ASME Code Rules

Rudolph Swigs 6/15/01

1. Manufactured by Nuclear Valve Division of Borg Warner, 7500 Tyrone Ave., Van Nuys, Ca. (Name & Address of Manufacturer) Order No. 47713

2. Manufactured for Bovee & Crail/G.E.R.I. P.O. Box 1040, Richland, Washington 99352 (Name and Address) Order No. 215-32619

3. Owner WPPSS Hanford #2 Job Site SLC-V-16, S/N 28839 00253

4. Location of Plant Richland, Washington 99352

5. Pump or Valve Identification Nuclear Valve Div. P/N 76650-1, 1 1/2 Inch Y Globe Valve, SS, SW

Serial Numbers 28839 thru 28841
(Brief description of service for which equipment was designed)

(a) Drawing No. 76650-1 Prepared by Nuclear Valve Division of Borg Warner

(b) National Board No. N/A

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

7. The material, design, construction, and workmanship complies with ASME Code Section III. Class 2

Edition 1974, Addenda Date Summer '75, Case No. N/A

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Disc - Code 2E1	Stellite #6	Rex Precision	
(b) Forgings			
Body - Code 2F76, 1K15, 1K14	SA 182 F 316	Pacific Forge, Compton Forge.	
Bonnet - Code 1M27	SA 182 F 316	Ducommun Metals	

REVIEWED
MAR 19 1982
BECHTEL QUALITY CONTROL
BY:

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8½" x 11", (2) information in items 1, 2, 5a and 5b 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.

WDG DR 215-16298

	Mark No.	Material Spec. No.	Manufacturer	Remarks
(c)	Bolting N/A			
(d)	Other Parts N/A			

8. Hydrostatic test 5400 psi.

CERTIFICATION OF DESIGN

Design information on file at NVD of Borg Warner, 7500 Tyrone Ave., Van Nuys, Ca. 91409

Stress analysis report on file at N/A

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

Stress analysis report certified by N/A (1) Prof. Eng. State _____ Reg. No. _____

(1) Signature not required. List name only.

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

Date April 24, 19 78 Signed Nuclear Valve Division of Borg Warner (Manufacturer) By [signature]

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

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Province of California and employed by Lumbermen's Mutual Casualty of Long Grove, Illinois have inspected the equipment described in this Data Report on April 24, 1978, and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Code, Section III.

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

Date April 24, 19 78

[signature] Commissions [illegible]

(Inspector) (National Board, State, Province and No.)

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

PLAN No 2-1673

ENERGY NORTHWEST

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

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

Date: 06/20/01
Sheet: 1 Of 1
Unit: Not Applicable

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

PLAN No 2-1673

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [ ] **Nominal Operating Pressure** [ ] **Other** [X] **None**

Test Pressure: Psig **Test Temperature:** ° F

Component Design Pressure: Psig **Temperature:** ° F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve HPCS-V-39, Serial No 56637.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh _____ ***Signed By*** Kuldip Singh _____

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

Date 6/21/01 ***Date*** 6/21/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ and employed by _____ _____ have inspected the components described in this Owner's Report during the period _____ to _____ and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Not Required - Replacement 1" NPS And Smaller ***Commissions*** _____

Inspector's Signature National Board, State, and Endorsements

Date _____

VE681

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

1. Manufactured by Nuclear Valve Div., Borg Warner, 7500 Tyrone Ave., Van Nuys, Calif.
(Name and Address of N Certificate Holder)
2. Manufactured for Bovee & Crail/G.E.R.I., P.O. Box 1040, Richland, Washington 99352
(Name and Address of Purchaser or Owner)
3. Location of Installation Richland, Washington WPPSS Hanford #2 Job Site
(Name and Address)
4. Pump or Valve Globe Valve. Nominal Inlet Size 3/4 (inch) Outlet Size 3/4 (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	1500#	56628, 56632,	N/A	76590-3	1	N/A	1980
(2)		56634, 56636					
(3)		Thru 56639					
(4)							
(5)							
(6)		HPCS-V-39, S/N 56637					
(7)							
(8)							
(9)							
(10)							

6/20/01

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

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Disc-Code 4D32	Colmonoy #4	Rex Precision	
(b) Forgings			
Body-Code 1V46	ASME SA105	Kawaguchi Dropforging Co.	

(1) For manually operated valves only.

VEGP-16286

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

(10/77) This form (E00037) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

2

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Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(d) Other Parts			
Backseat-Code	ASME SA564 Type 630		
1X08		Ducommun Metals Co.	
1W30		Jorgensen	

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

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. I., Edition 1974.
Addenda Summer '75 (Date), Code Case No. N/A Date 3/28/80
Signed Nuclear Valve Div., Borg Warner (N Certificate Holder) by Carla M. Guidotti
Our ASME Certificate of Authorization No. N-1254 to use the N (N) symbol expires 10/27/81 (Date).

CERTIFICATION OF DESIGN

Design information on file at NVD of Borg Warner, 7500 Tyrone Ave., Van Nuys, Ca. 91409
Stress analysis report (Class 1 only) on file at NVD of Borg Warner, 7500 Tyrone Ave., Van Nuys CA. 91409
Design specifications certified by (1) David J. Murphy
PE State Washington Reg. No. 12542
Stress analysis certified by (1) Liwei Chen
PE State CA. Reg. No. 18581
(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by Lumbermen's Mutual Casualty of Long Grove, Illinois have inspected the pump, or valve, described in this Data Report on 4/7 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, Section III.

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

Date 4/7 1980

(Inspector) Commissions 1275 CA. (Nat'l Bd., State, Prov. and No.)

PLAN No 2-1674

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** Reactor Core Isolation Cooling (RCIC) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with 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**

Date: 06/28/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
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.

PLAN No 2-1674

ENERGY NORTHWEST

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

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

Test Pressure: Psig
Component Design Pressure: Psig
Test Temperature: ° F
Temperature: ° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement **conforms to the rules of the ASME Code, Section XI.**
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

Date 6/28/01 **Date** 6/28/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ **and employed by** _____ _____ **have inspected the components described in this Owner's Report during the period** _____ **to** _____ **and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.**
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Not Required - Replacement 1" NPS And Smaller
Inspector's Signature

Commissions _____
National Board, State, and Endorsements

Date _____

PLAN No 2-1675

ENERGY NORTHWEST

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

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

Date: 06/12/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
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

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.

PLAN No 2-1675

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [ ] **Nominal Operating Pressure** [X] **Other** [ ] **None**

Test Pressure: 215 Psig **Test Temperature:** 63° F

Component Design Pressure: 309 Psig **Temperature:** 150° F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve SW-V-2A, Serial No 84962-4-2.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/13/01 ***Date*** 6/13/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 5/15/01 ***to*** 6/22/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***

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

Inspector's Signature ***Commissions*** 7486w/7486 WI IS

National Board, State, and Endorsements

Date 6/22/01

P O. 9779-40A, Item # 21 S.O. NP84962, Item #4 PCRM No. 2-1675

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

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

Ralph Swab

1. Manufactured by Contromatics Div., 222 Roberts St., E. Hartford, Ct. 06108
(Name and Address of N Certificate Holder)
2. Manufactured for WPPSS, 3000 George Washington Way, Richland, Washington 9935.
(Name and Address of Purchaser or Owner)
3. Location of Installation Hanford Reservation Project 4, Richland, Washington
(Name and Address)
4. Pump or Valve Butterfly Valve. Nominal Inlet Size 20 (inch) Outlet Size 20 (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	Butterfly	84962-4-2	N/A	2498-20-06E	3	225	1979
(2)							
(3)							
(4)							
(5)	SW-V-2A, SIN 84962-4-2						
(6)							
(7)							
(8)							
(9)							
(10)							

5. Shutdown Cooling Water Tag #4-NSW-V-302B
(Brief description of service for which equipment was designed)

6. Design Conditions 200 (Pressure) psi 350 (Temperature) °F or Valve Pressure Class 300 (1)
7. Cold Working Pressure 720 psi at 100°F.
8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Disc	ASME-SA-351 CF8M	Lodi Iron Works	
Ht #E535			
(b) Forgings			

(1) For manually operated valves only.

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

FORM NPV-1 (Back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting			
(d) Other Parts			
Body(Plate)	ASME-SA-516 Gr. 70	Lukens Steel Company	
Ht #D6264			
Slab 5			

9. Hydrostatic test 1100 psi. Disk Differential test pressure 200 psi.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. I., Edition 1974, Addenda Winter 1975 (Date), Code Case No. N/A. Date 4/23/79

Signed Contromatics Division (N Certificate Holder) by Robert Schwanda (R. Schwanda, Asst. Quality Control)

Our ASME Certificate of Authorization No. N-1934 to use the N (N) symbol expires 11/18/80. (Date)

CERTIFICATION OF DESIGN

Design information on file at Contromatics Division

Stress analysis report (Class 1 only) on file at

Design specifications certified by (1) John E. Herman

PE State Wash. Reg. No. 15137

Stress analysis certified by (1)

PE State Reg. No.

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Connecticut and employed by Lumbermens Mutual Co. of North Quincy, Mass. have inspected the pump, or valve, described in this Data Report on 4-23 19 75, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

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

PLAN No 2-1676

ENERGY NORTHWEST

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

Date: 03/21/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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.

PLAN No 2-1676

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [ ] Other [X] None
Test Pressure: Psig
Component Design Pressure: Psig
Test Temperature: ° F
Temperature: ° F

9. Remarks: See attached NV-1 Code Data Report for the spare relief valve Serial No 138433-1-1.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

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

Date 3/21/01

Date 3/21/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1/29/01 to 3/26/01 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions 7486 w/ 7486 WI
National Board, State, and Endorsements

Date 3/26/01

PLANT NO. 2-1616

FORM NV-1 CERTIFICATE HOLDERS' DATA REPORT FOR PRESSURE / VACUUM RELIEF VALVES*

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

1. Manufactured and certified by Kunkle Industries Inc. Lonergan Valve Division, 8222 Bluffton Rd., Fort Wayne, IN 46809 (name and address of NV Certificate Holder)

2. Manufactured for Wash Pub Pwr Supply, Accts Pay MD 055, PO Box 968, Richland, VA 99352-0968 (name and address of Purchaser)

3. Location of installation Wash Pub Pwr Supply, WNP-2 OFS Whse Complex, WHS #1, North Power Plt Loop, Richland, WA 993 (name and address)

4. Valve ND30FS021-DG (model no., series no.) Orifice size .658 (in.) Nom. inlet size 1 1/2" (in.) Outlet size 2" (in.)

5. ASME Code, Section III, Division 1: 1974 (edition) WINTER 1974 (addenda date) 2 (class) N/A (Code Case no.)

6. Type SPRING (spring, pilot or power operated) 427 (set pressure, psig) FIXED (blowdown, psi) 450° F (rated temp.) 641 (hydro. test, psig, inlet) at 33° MIN. °F

7. Identification 138433-1-1 (Cert. Holder's serial no.) N/A (CRN) A930334 Rev. - (drawing no.) N/A (Nat'l. Bd. no.) 1994 (year built)

8. Control ring settings 2 notches down

9. Pressure retaining items: S/N 138433-1-1 (LPCS-RV-18)

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	T4710-1	SA-216 WCB	70 ksi
Cap	J1592-5	SA-216 WCB	70 ksi
Bonnet	T2633-9	SA-216 WCB	70 ksi
Nozzle	23016	SA-479 TY 316	75 ksi
Disk	35492	SA-479 TY 316	75 ksi
Stem	94918	SA-479 TY 316	75 ksi
Comp. Screw	701152	SA-479 TY 316	75 ksi
Spring Step	38003	SA-479 TY 316	75 ksi
Spring	AJ7182	A-313 TY 316	*
Nut	8079541/N4C	SA-194 GR 2H	N/A
Stud	8866612	SA-193 GR B7	125 ksi

(CONTINUED IN BLOCK 11)

10. Relieving capacity 98,200 (196.4 GPM) (steam or fluid, lb/hr) @ 10% (psi) overpressure as certified by the National Board 4-16-85 (date)

11. Remarks:

Gag Plug Screw	30091	SA-479 TY 316	75 ksi
Ring Pin Screw	30091	SA-479 TY 316	75 ksi
Plug	18450	SA-479 TY 316	75 ksi

* Spring exempt from material requirements of NC-2000 but meets design requirements of NC-3595.

CERTIFICATION OF DESIGN

Design Specification certified by D. Murphy P.E. State WA Reg. no. 12542

Design Report certified by N/A P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

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

NV Certificate of Authorization No. N-2853 Expires November 18, 1994

Date 7-27-94 Name Kunkle Industries Inc. Lonergan Valve Division (NV Certificate Holder) Signed Bruce L. Gallinger (authorized representative)

* 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.

(12/88)

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

K. Wopss 8/1/94

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 HSBI & I Co.
of Hartford, CT have inspected the valve described in this Data Report on
July 27, 1994, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this valve in accordance with the ASME Code, Section III, Division 1.

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

Date 7-27-94 Signed Richard P. Davey (Authorized Inspector) Commissions NB 7444 (NB IA), Ins 84D [Nat'l. Bd. (incl. endorsements) and state or prov. and no.]

8/1/94

PLAN No 2-1677

ENERGY NORTHWEST

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

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

Date: 06/20/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
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.

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 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.

PLAN No 2-1677

ENERGY NORTHWEST

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

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 Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)

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

Date 6/21/01 ***Date*** 6/21/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 3/26/01 ***to*** 6/22/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***

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

M. M. Foster — Inspector's Signature

Commissions 7486W / 7486 NI IJ — National Board, State, and Endorsements

Date 6/22/01

PLAN NO. 2-1677

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

1. Manufactured and certified by Kunkle Industries Inc. Lonergan Valve Division, 8222 Bluffton Rd., Fort Wayne, IN 46809 (name and address of NV Certificate Holder) 6/12/01
2. Manufactured for Wash Pub Pwr Supply, Accts Pay MD 055, PO Box 968, Richland, VA 99352-0968 (name and address of Purchaser)
3. Location of installation Wash Pub Pwr Supply, WNP-2 OFS Whse Complex, WHS #1, North Power Plt Loop, Richland, WA 99352 (name and address)
4. Valve ND30FS021-DG (model no., series no.) Orifice size .658 (in.) Nom. inlet size 1 1/2" (in.) Outlet size 2" (in.)
5. ASME Code, Section III, Division 1: 1974 (edition) WINTER 1974 (addenda date) 2 (class) N/A (Code Case no.)
6. Type SPRING (spring, pilot or power operated) 427 (set pressure, psig) FIXED (blowdown, pct) 450° F (rated temp.) 641 (hydro. test, psig, inlet) at 33° MIN. °F
7. Identification 138433-1-1 (Cert. Holder's serial no.) N/A (CRN) A930334 Rev. - (drawing no.) N/A (Nat'l. Bd. no.) 1994 (year built)
8. Control ring settings 2 notches down

LPCS-RV-18, S/N 138433-1-1

9. Pressure retaining items:

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	T4710-1	SA-216 WCB	70 ksi
[redacted] Cap	J1592-5	SA-216 WCB	70 ksi
[redacted] Bonnet	T2633-9	SA-216 WCB	70 ksi
Nozzle	23016	SA-479 TY 316	75 ksi
Disk	35492	SA-479 TY 316	75 ksi
[redacted] Stem	94918	SA-479 TY 316	75 ksi
[redacted] Comp. Screw	701152	SA-479 TY 316	75 ksi
[redacted] Spring Step	38003	SA-479 TY 316	75 ksi
Spring	AJ7182	A-313 TY 316	*
[redacted] Nut	8079541/N4C	SA-194 GR 2H	N/A
[redacted] Stud	8866612	SA-193 GR B7	125 ksi

(CONTINUED IN BLOCK 11)

10. Relieving capacity 98,200 (196.4 GPM) (steam or fluid, lb/hr) @ 10% (psi) overpressure as certified by the National Board 4-16-85 (date)

11. Remarks:

Gag Plug Screw	30091	SA-479 TY 316	75 ksi
Ring Pin Screw	30091	SA-479 TY 316	75 ksi
Plug	18450	SA-479 TY 316	75 ksi

* Spring exempt from material requirements of NC-2000 but meets design requirements of NC-3595.

CERTIFICATION OF DESIGN

Design Specification certified by D. Murphy P.E. State WA Reg. no. 12542
Design Report certified by N/A P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

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

NV Certificate of Authorization No. N-2853 Expires November 18, 1994

Date 7-27-94 Name Kunkle Industries Inc. Lonergan Valve Division (NV Certificate Holder) Signed [signature] (authorized representative)

* 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.

(12/88) This form (E00042) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

K. Woods 8/1/94

Certificate Holder's Serial No. 138A33-1-1

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by HSBI & I Co. of Hartford, CT have inspected the valve described in this Data Report on July 27, 1994, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this valve in accordance with the ASME Code, Section III, Division 1.

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

Date 7-27-94 Signed Richard L. Dauge (Authorized Inspector) Commissions NB 7444 (NB IA), Ind 84D (Nat'l. Bd. (incl. endorsements) and State or prov. and no.)

8/1/94

PLAN No 2-1678

ENERGY NORTHWEST

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

Date: 05/09/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [ ] Other [X] None

Test Pressure: Psig — **Test Temperature:** ° F

Component Design Pressure: Psig — **Temperature:** ° F

9. Remarks: See attached NV-1 Code Data Report for the spare relief valve Serial No 97-16628.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 5/14/01

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

Date 5/14/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington **and employed by** Factory Mutual Insurance Company of Johnston, Rhode Island **have inspected the components described in this Owner's Report during the period** 1/04/01 **to** 5-19-01 **and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.**

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

T. M. [illegible] — Inspector's Signature

Commissions 7486W/7486 NI IS — National Board, State, and Endorsements

Date 5/19/01

PLAN NO. 2-1678

S/O S189230000.013 P.O. 248960 *revised

PAGE 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 Pg. 1 of 2

1. Manufactured and certified by ANDERSON, GREENWOOD & CO., 3950 GREENBRIAR, STAFFORD, TX 77477 (name and address of NV Certificate Holder)

2. Manufactured for WASHINGTON PUBLIC POWER SUPPLYP.O. Box 968, RICHLAND, WA 99352 (name and address of Purchaser)

3. Location of installation WNP-2 OPS WHS Complex WHS #1 North Power Plant Loop, Richland, WA 99352 (name and address)

4. Valve ND70DS121ADG1572 (model no., series no.) Orifice size 0.394 (in.) Nom. inlet size 1-1/2 (in.) Outlet size 2 (in.)

5. ASME Code, Section III, Division 1: 1974 (edition) W-74 (addenda date) 2 (class) NA (Code Case no.) 1st 5/5/99

6. Type Spring (spring, pilot or power operated) 1572 (set pressure, psig) Fixed (blowdown, psi) 70°F (rated temp.) * 5575 (hydro. test, psig, inlet) at Ambient °F

7. Identification 97-16626 (Cert. Holder's serial no.) NA (CRN) N11.1313 R/B (drawing no.) NA (Nat'l. Bd. no.) 1998 (year built)

8. Control ring settings NA CBOM N07.0010.001 R/B

9. Pressure retaining items: S/N 97-16626 (HPCS-RV-35) Rudolf Engr 5/9/01

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	B748	SA216-WCB	70
Bonnet or Yoke	B626	SA216-WCB	70
Support Rods Screw Comp.	B802	SA479-316	75
Nozzle	B695	SA479-316	75
Disk	B607	SA479-316	75
Spring Washers	B803	SA479-316	75
Adjusting Screws Screwring pin	B612	SA479-316	75
Spindle Stem	B806	SA479-316	75
Spring	A3780H	A313-316	NA
Bolting Nut-stud	99216.G-1416	SA194-8M	NA
Other Items Pipe Plug	599VNF.4482NF1	SA105	70
Disc Holder	B687	SA351-CF8M	70
Stud	8866612	SA193-B7	105

1st 5/5/99 2nd 5/5/99

10. Relieving capacity * 135 GPM (steam or fluid, lb/hr) @ * 10% (psi) overpressure as certified by the National Board 4/16/85 (date)

11. Remarks: 9. Con't Cap B691 SA216-WCB 70
Screw Gag Plug B694 SA479-316 75

* CERTIFICATION OF DESIGN

Design Specification certified by David Michael Bosi P.E. State WA Reg. no. 20941

Design Report certified by NA P.E. State NA Reg. no. NA

CERTIFICATE OF COMPLIANCE

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

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

Date 12/17/98 Name Anderson, Greenwood & Co. (NV Certificate Holder) Signed Joseph A. Parker (authorized representative)

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

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

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 TX and employed by C.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 connected with this inspection.

Date 12-17-98 Signed _____ (Authorized Inspector) Commissions TX 803 (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

PLAN No 2-1679

ENERGY NORTHWEST

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

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

Date: 06/23/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
HPCS(3)-1	WPPSS *	HPCS(3)-1	N/A	N/A	1983	----------	Yes, Code Class 2
HPCS(4)-4CL2	WPPSS *	HPCS(4)-4CL2-P2	N/A	N/A	1983	----------	Yes, Code Class 2
HPCS-RV-35	Lonergan	509258-73-1	N/A	N/A	1978	Replaced	Yes, Code Class 2
HPCS-RV-35	Anderson Greenwood	97-16626	N/A	N/A	1998	Replacement	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.

NOTES -

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.

PLAN No 2-1679

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [ ] Nominal Operating Pressure [X] Other [*]

Test Pressure: 405/38.7 Psig **Test Temperature:** 86/76° F

Component Design Pressure: 1575/100 Psig **Temperature:** 212° F

9. Remarks: 1) See attached NV-1 Code Data Report for the replacement relief valve HPCS-RV-35, Serial No 97-16626.
2) VT-2 visual examination to confirm pressure boundary integrity of the replacement relief valve HPCS-RV-35, Serial No 97-16626 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 HPCS-RV-35, Serial No 97-16626 outlet bolted joint was performed during 10CFR50, Appendix J Local Leak Rate Test (LLRT).
4) Test pressure of 405 Psig and test temperature of 86° F is for relief valve inlet joint. Component design pressure of 1575 Psig and design temperature of 212° F is for the relief valve inlet piping.
5) Test pressure of 38.7 Psig and test temperature of 76° 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 Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE) ***Signed By*** Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)

Date 6/23/01 ***Date*** 6/23/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 1/4/01 ***to*** 7/10/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***

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

Inspector's Signature

Commissions 7486w/7486 NI FI
National Board, State, and Endorsements

Date 7/10/01

S/O S189230000.013 P.O. 248960 PLAN No. 2-1679 *revised PAGE 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 Pg. 1 of 2

1. Manufactured and certified by ANDERSON, GREENWOOD & CO., 3950 GREENBRIAR, STAFFORD, TX 77477 (name and address of NV Certificate Holder)

2. Manufactured for WASHINGTON PUBLIC POWER SUPPLYP.O. Box 968, RICHLAND, WA 99352 (name and address of Purchaser)

3. Location of installation WNP-2 OPS WHS Complex WHS #1 North Power Plant Loop, Richland, WA 99352 (name and address)

4. Valve ND70DS121ADG1572 (model no., series no.) Orifice size 0.394 (in.) Nom. inlet size 1-1/2 (in.) Outlet size 2 (in.)

5. ASME Code, Section III, Division 1: 1974 (edition) W-74 (addenda date) 2 (class) NA (Code Case no.) jpl 5/15/99

6. Type Spring (spring, pilot or power operated) 1572 (set pressure, psig) Fixed (blowdown, psi) 70°F (rated temp.) * 5575 (hydro. test, psig, inlet) at Ambient °F

7. Identification 97-16626 (Cert. Holder's serial no.) NA (CRN) N11.1313 R/B (drawing no.) NA (Nat'l. Bd. no.) 1998 (year built)

8. Control ring settings NA CBOM N07.0010.001 R/B

9. Pressure retaining items: HPCS-RV-35, S/N 97-16626 Phillip Sims 6/20/00

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	B748	SA216-WCB	70
Bonnet or Yoke	B626	SA216-WCB	70
~~Support Rods~~ Screw Comp.	B802	SA479-316	75
Nozzle	B695	SA479-316	75
Disk	B607	SA479-316	75
Spring Washers	B803	SA479-316	75
Adjusting Screws	Screwring pin B612	SA479-316	75
~~Spindle~~ Stem	B806	SA479-316	75
Spring	A3780H	A313-316	NA
Bolting Nut-stud	99216.G-1416	SA194-8M	NA
Other Items Pipe Plug	599VNF.4482NF1	SA105	70
Disc Holder	B687	SA351-CF8M	70
Stud	8866612	SA193-B7	105

10. Relieving capacity * 135 GPM (steam or fluid, lb/hr) @ * 10% (psi) overpressure as certified by the National Board 4/16/85 (date)

jpl 5/5/99 jpl 5-5-99

11. Remarks: 9. Con't Cap B691 SA216-WCB 70
Screw Gag Plug B694 SA479-316 75

CERTIFICATION OF DESIGN

Design Specification certified by David Michael Bosi P.E. State WA Reg. no. 20941

Design Report certified by NA P.E. State NA Reg. no. NA

CERTIFICATE OF COMPLIANCE

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

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

Date 12/17/98 Name Anderson, Greenwood & Co. (NV Certificate Holder) Signed Joseph A. Parker (authorized representative)

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

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 TX and employed by C.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 connected with this inspection.

Date 12-17-98 Signed _____ (Authorized Inspector) Commissions TX 803 [Nat'l. Bd. (incl. endorsements) and state or prov. and no.]

PLAN No 2-1680

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: Energy Northwest
(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
(c) Type Code Symbol Stamp: Not Applicable
(d) Certificate Of Authorization No.: Not Applicable
(e) Expiration Date: Not Applicable
4. Identification Of System: Reactor 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

Date: 07/09/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RPV	CBI Nuclear	T45	9	N/A	1974	----------	Yes, Code Class 1
LPRM	General Electric*	94S0434	N/A	N/A	1994	Replaced	Yes, Code Class 1
LPRM	General Electric*	00S11723	N/A	N/A	2001	Replacement	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

ENERGY NORTHWEST

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

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

Test Pressure: Psig
Component Design Pressure: Psig
Test Temperature: ° F
Temperature: ° F

9. Remarks: See attached N-2 Code Data Report for the replacement Local Power Range Monitoring (LPRM) incore assembly Serial No 00S11723.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement ***conforms to the rules of the ASME Code, Section XI.***
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

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

Date 7/9/01

Date 7/9/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 5-17-01 ***to*** 7-24-01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions 7486W/7486 NIS-2.
National Board, State, and Endorsements

Date 7-24-01

WORK ORDER NUMBER: 535

PLAN NO. 2-1680

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

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

[signature] 7/9/01

1. Manufactured and certified by GE Reuter-Stokes, Inc., 8499 Darrow Road, Twinsburg, Ohio 44087 (name and address of NPT Certificate Holder)
2. Manufactured for Columbia Generating Station, Energy Northwest, Richland, Washington 99352 (name and address of Purchaser)
3. Location of installation Columbia Generating Station, Energy Northwest, Richland, Washington 99352 (name and address)
4. Type: RS-C6-1400-262 (drawing no.) N/A (mat'l spec. no.) N/A (tensile strength) N/A (CRN) 2001 (year built)
5. ASME Code, Section III, Division 1: 1977 (edition) Summer 1977 (addenda date) 1 (class) N/A (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A
7. Remarks: Certified Design Specification CDS-C-5049-03
   Certified Design Report CDR-C-5042-09
   On File at GE Reuter-Stokes, Inc.
8. Nom. thickness (in.) N/A Min. design thickness (in.) N/A Dia. ID (ft & in.) N/A Length overall (ft & in.) N/A
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical Order	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) 00S11723	N/A	(26)	
(2)		(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

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

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

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.
Reprint (7/91)

WORK ORDER NUMBER: 535

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

Certificate Holder's Serial Nos. N/A through N/A

CERTIFICATION OF DESIGN

Design specifications certified by Surinder L. Kampani (when applicable) P.E. State OH Reg. no. E-034113

Design report* certified by Bill A. Balazs (when applicable) P.E. State CA Reg. no. MF348

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-2703 Expires September 16, 2003

Date 3-26-01 Name GE Reuter-Stokes, Inc. (NPT Certificate Holder) Signed [signature] (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of OHIO and employed by H.S.B.I. & I. Co. of HARTFORD, CT have inspected these items described in this Data Report on 3-26-2001, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

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

Date 3-26-2001 Signed Herbert Campbell (Authorized Inspector) Commissions NB 9176 A,B,N Ohio 1776 [Nat'l Bd. (incl. endorsements) and state or prov. and no.]

PLAN No 2-1684

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: Energy Northwest
(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
(c) Type Code Symbol Stamp: Not Applicable
(d) Certificate Of Authorization No.: Not Applicable
(e) Expiration Date: Not Applicable
4. Identification Of System: 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

Date: 02/26/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SLC(2)-3S	WPPSS *	SLC(2)-3S-P1	N/A	N/A	1983	----------	Yes, Code Class 2
SLC(1)-1S	WPPSS *	SLC(1)-1S-P1	N/A	N/A	1982	----------	Yes, Code Class 2
SLC-RV-29A	Lonergan	137180-1-1	N/A	N/A	1994	Replaced	Yes, Code Class 2
SLC-RV-29A	Lonergan	509258-82-1	N/A	N/A	1978	Replacement	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.

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-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.

PLAN No 2-1684

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [ ] **Nominal Operating Pressure** [X] **Other** [ ] **None**

Test Pressure: Static Head
Component Design Pressure: 1400 Psig
Test Temperature: 84° F
Temperature: 200° F

9. Remarks: 1) See attached NPV-1 Code Data Report for the replacement valve SLC-RV-29A, Serial No 509258-82-1.
2) Component design pressure of 1400 Psig is relief valve set pressure and design temperature of 200° F is relief valve rated temperature.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement ***conforms to the rules of the ASME Code, Section XI.***
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

Prepared By Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)
Date 2/26/01

Signed By Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)
Date 2/26/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 1/29/01 ***to*** 3/6/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions 7486 AA/7486 NB I S
National Board, State, and Endorsements

Date 3/6/01

PLAN NO. 2-1684
Philip Sieb

As required by the Provisions of the ASME Code Rules

1. Manufactured by J. E. Lonergan Company, Red Lion Rd., W. of Verree, Philadelphia, Pa. 19115 2/26/01
Name and Address

Model No. D-50D/S4 Order No. 509258 Contract Date 8/5/75 National Board No.

2. Manufactured For Bovee & Crail Const. Co. and General Energy Resources, Inc., Richland, Wash. Order No. 215-15190
Name and Address

3. Owner Washington Public Power, Hanford, Washington 99352
Name and Address

4. Location of Plant Hanford #2 Jobsite, 12 Miles North of Richland, Washington 99352

5. Valve Identification SLC-RV-29A Serial No. 509258-82-1 Drawing No. A-2346, No Rev.

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

6. Set Pressure (PSIG) 1400 * 200 Rated Temperature 12/15/78

Stamped Capacity 67.2 G.P.M. MXXXX @ 10 % Overpressure Blowdown (PSIG) **

Hydrostatic Test (PSIG) Inlet 2100 Outlet Valve 425

7. The material, design, construction and workmanship comply with ASME Code, Section III, Winter Addenda
Class 2, Edition 1974, Addenda Date 12/31/74, Case No. 1555

BOVEE & CRAIL / G.E.R.I.
Q.A./Q.C. APPROVED
SIGN: [signature]
DATE 1-22-75 TAG # 34316

Pressure Containing or Pressure Retaining Components

	Serial No. or Identification	Material Specification Including Type or Grade
a. Castings		
Body	D371-1	ASME SA-351 (CF8M) Type 316
Bonnet	E5369-1	ASME SA-351 (CF8M) Type 316
b. Bar Stock and Forgings		WBG BR 215 15018
Support Rods		
Nozzle	02607	ASME SA-479 Type 316
Disc	G8864	ASME SA-479 Type 316
Spring Washers	02607	ASME SA-479 Type 316
Adjusting Screw	G9913	ASME SA-479 Type 316
Spindle	G9938	ASME SA-479 Type 316

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

	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring	Heat No. 00652	ASTM A-313 Type 316
d. Bolting	Studs - Cert. of Conformance	ASME SA-320, GR.B8
	Nuts - Cert. of Conformance	ASME SA-194, GR. 8
e. Other Parts such as Pilot Components		
Cap	02977	ASME SA-479 Type 316

ABOVE MATERIAL / G.E.R.I.
Q.I. APPROVED
SIGN: [signature]
DATE: 12-22-78 394374

** Blowdown not specified by code.

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

Date 12-15 19 78 Signed J. E. LONERGAN CO. (Manufacturer) By T. A. NICKEY

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

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Penna. and employed by Hartford Stm. Boiler I.&I. Co. of Hartford, Conn. have inspected the equipment described in this Data Report on Dec 15 19 78 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

Date Dec 15 19 78

WBG BR 215 15018

Walter J. Conaggo (Inspector) Commissions Pa 1786 (National Board, State, Province and No.)

PLAN No 2-1685

ENERGY NORTHWEST

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

Date: 02/26/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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	WPPSS *	SLC(2)-3S-P1	N/A	N/A	1983	----------	Yes, Code Class 2
SLC(1)-1S	WPPSS *	SLC(1)-1S-P1	N/A	N/A	1982	----------	Yes, Code Class 2
SLC-RV-29B	Lonergan	137180-1-2	N/A	N/A	1994	Replaced	Yes, Code Class 2
SLC-RV-29B	Lonergan	139407-1-2	N/A	N/A	1994	Replacement	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.

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-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

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [ ] **Nominal Operating Pressure** [X] **Other** [ ] **None**

Test Pressure: Static Head
Component Design Pressure: 1400 Psig
Test Temperature: 82° F
Temperature: 100° F

9. Remarks: 1) See attached NPV-1 Code Data Report for the replacement valve SLC-RV-29B, Serial No 139407-1-2.
2) Component design pressure of 1400 Psig is relief valve set pressure and design temperature of 100° F is relief valve rated temperature.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement ***conforms to the rules of the ASME Code, Section XI.***
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

Date 2/26/01 ***Date*** 2/26/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 1/29/01 ***to*** 3/6/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

M. M. Eastep — Inspector's Signature
Commissions 7486 W/7486 I IS.N — National Board, State, and Endorsements

Date 3/6/01

FORM NV-1 CERTIFICATE HOLDER'S DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES

As Required by the Provisions of the ASME Code, Section III, Division 1 Pg. 1 of 2

1. Manufactured and certified by Kunkle Industries, Inc. Lonergan Valve Division, 8222 Bluffton Road, Fort Wayne, IN 46809 PLANT No. 2-1685
(name and address of NV Certificate Holder)

2. Manufactured for Washington Public Power Supply System, Accts. Payable, MD 055, P.O. 968, Richland, WA 99352-0968
(name and address of Purchaser)

3. tion of installation Washington Public Power Supply System, WNP-2 OPS WHS Complex, Whse. #1, North Power Plant Loop, Richland, WA 99352
(name and address)

4. Valve ND50DS421-DG1400 (model no., series no.) Orifice size .394 (in.) Nom. inlet size 1" (in.) Outlet size 2" (in.)

5. ASME Code, Section III, Division 1: 1974 (edition) Winter 1974 (addenda date) 2 (class) N/A (Code Case no.)

6. Type Spring (spring, pilot or power operated) 1400 (set pressure, psig) N/A (blowdown, psi) 100° F (rated temp.) 2100 (hydro. test, psig, inlet) at 33° min. °F

7. Identification 139407-1-1 through 139407-1-2 (Cert. Holder's serial no.) N/A (CRN) A940014 Rev. 0 (drawing no.) N/A (Nat'l. Bd. no.) 1994 (year built)

8. Control ring settings N/A

SLC-RV-29B, S/N 139407-1-2

9. Pressure retaining items:

Rudolf Sugg 2/26/01

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	S6601-1, -2	SA-351 CF8M	70 ksi
Bonnet	T4795-5, -6	SA-351 CF8M	70 ksi
3/8" Plug	18450 / 73028	SA-479 TY316	75 ksi
Nozzle	703685	SA-479 TY316	75 ksi
Disk	97477	SA-479 TY316	75 ksi
Spring Step	31828	SA-479 TY316	75 ksi
Cap	H8506-4, -12	SA-351 CF8M	70 ksi
Gag Plug Screw	30091	SA-479 TY316	75 ksi
Spring	20330	ASTM A-313 TY316	*
Ring Pin Screw	30091	SA-479 TY316	75 ksi
Stem	704631	SA-479 TY316	75 ksi

(Continued below)

10. Relieving capacity 63,500 (127 GPM) (steam or fluid, lb/hr) @ 10% (psi) overpressure as certified by the National Board 01/25/85 (date)

11. Remarks: * Spring exempt from material requirements of NC-2000 but meets design requirements of NC-3595.

9. Pressure Retaining Items: (Continued)

Compression Screw	700737	SA-479 TY316	75 ksi
Heavy Hex Nut	8079541/N4C	SA-194 GR 2H	N/A
Stud	8866612	SA-193 GR B7	125 ksi

CERTIFICATION OF DESIGN

Design Specification certified by D. Murphy P.E. State WA Reg. no. 12542

Design Report certified by N/A P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

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

NV Certificate of Authorization No. N-2853 Expires November 18, 1994

Date 8-3-94 Name Kunkle Industries, Inc. Lonergan Valve Division (NV Certificate Holder) Signed Debra A. Wetzel (authorized representative)

*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.

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

8/2/94

Certificate Holder's Serial No. 139407-1-1 thru 139407-1-2

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by HSBI & I Co. of Hartford, CT have inspected the valve described in this Data Report on AUGUST 4, 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 8-4-94 Signed [signature] (Authorized Inspector) Commissions N137444(NB)(IA), IN 840 (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

PLAN No 2-1686

ENERGY NORTHWEST

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

Date: 06/13/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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(4)-1B	WPPSS *	RHR(4)1B-P1	N/A	N/A	1983	----------	Yes, Code Class 2
RHR-RV-25B	Lonergan	128261-1-1	N/A	N/A	1993	Replaced	Yes, Code Class 2
RHR-RV-25B	Lonergan	509258-76-1	N/A	N/A	1979	Replacement	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.

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 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.

PLAN No 2-1686

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic ☐ **Pneumatic** ☐ **Nominal Operating Pressure** ☐ **Other** [*]

Test Pressure: 38.59 Psig
Component Design Pressure: 125 Psig
Test Temperature: 77.4° F
Temperature: 480° F

9. Remarks: 1) See attached NV-1 Code Data Report for the replacement relief valve RHR-RV-25B, Serial No 509258-76-1.
2) * VT-2 visual examination to confirm pressure boundary integrity of the replacement relief valve RHR-RV-25B, Serial No 509258-76-1 outlet 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.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement ***conforms to the rules of the ASME Code, Section XI.***
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

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

Date 6/13/01

Date 6/13/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 4/12/01 ***to*** 7/10/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions 7486 w/2486 N I E
National Board, State, and Endorsements

Date 7/10/01

FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES Page 3 of 3
WBS BR 215-18807 TAG 59698
RHR-2022-1 As required by the Provisions of the ASME Code Rules
PLAN No. 2-1686

1. Manufactured by J. E. Lonergan Co., Red Li... Rd., W. of Varree, Philadelphia, Pa. 19115
Name and Address
RHR-RV-25B S/N 509258-76-1

Model No. D-30D Order No. 509258 Contract Date 8/5/75 National Board No.

2. Manufactured For Boveo & Crail Const. Co. and General Energy Resources, Inc., Richland, Washington Order No. 215-15190
Name and Address

3. Owner Washington Public Power, Hanford, Washing...n 99352
Name and Address

4. Location of Plant Hanford #2 Jobsite, 12 Miles North of Richland, Washington 99352

5. Valve Identification RHR-RV-25C Serial No. 509258-76-1 Drawing No. A-2369 Rev. D

Type Safety Relief Valve (Safety; Safety Relief; Pilot; Power Actuated) Orifice Size 0.110 sq. inch Pipe Size ___ Inch Inlet 1" Inch Outlet 2"

6. Set Pressure (PSIG) 500 450 °F Rated Temperature

Stamped Capacity 40.1 GPM at 10 % Overpressure Blowdown (PSIG) **

Hydrostatic Test (PSIG) Inlet 750 Outlet Valve 425

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

Class 2, Edition 1974, Addenda Date Winter Addenda 12/31/74, Case No. 1555

ISG 3.7.3.4

Pressure Containing or Pressure Retaining Components

	Serial No. or Identification	Material Specification Including Type or Grade
a. Castings		
Body	D8350-19	ASME SA-216/WCB
Bonnet	DS350-22	ASME SA-216/WCB
b. Bar Stock and Forgings		
Support Rods		
Nozzle	C17792	ASME SA-479 Type 304
Disc	01629	ASME SA-479 Type 304
Spring Washers	C17792	ASME SA-479 Type 304
Adjusting Screw	91015	ASME SA-479 Type 304
Spindle	91372	ASME SA-479 Type 410

REVIEWED MAY 07 19.. QUALITY CONTROL BY:

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

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	Identification Heat No.	Material Specification Including Type or Grade
c. Spring	W39717	ASTM A-229
d. Bolting Studs - Cert. of Conformance		ASME SA-193, GR. B-7
Nuts - Cert. of Conformance		ASME SA-194, GR. 2H
e. Other Parts such as Pilot Components		
Cap	E4006-6	ASME SA-216/WCB

** Blowdown not specified by code.

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

Date 4-18 19 79 Signed J. E. LONERGAN COMPANY (Manufacturer) By T. A. RICKEY

Certificate of Authorization No. N-1643 expires Aug. 9, 1979

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Penna. and employed by THE HARTFORD STM. BOILER I.&I. CO. of Hartford, Conn. have inspected the equipment described in this Data Report on April 18 1979 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

Date April 18 1979

(Inspector) Commissions Pa 1786 (National Board, State, Province and No.)

U.S.A. 1/73

2 1 5 9 7 2 2 6 WBG BR 215-18807

PLAN No 2-1688

ENERGY NORTHWEST

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

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

Date: 06/13/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(3)-2A	WPPSS *	RHR(3)-2A-P1	N/A	N/A	1983	----------	Yes, Code Class 2
RHR(4)-1B	WPPSS *	RHR(4)1B-P1	N/A	N/A	1983	----------	Yes, Code Class 2
RHR-RV-5	Anderson **	97-16627	N/A	N/A	1997	Replaced	Yes, Code Class 2
RHR-RV-5	Lonergan	509258-86-1	N/A	N/A	1979	Replacement	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.

NOTES -

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.

PLAN No 2-1688

ENERGY NORTHWEST

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

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

9. Remarks: 1) See attached NV-1 Code Data Report for the replacement relief valve RHR-RV-5, Serial No 509258-86-1.
2) * VT-2 visual examination to confirm pressure boundary integrity of the replacement relief valve RHR-RV-5, Serial No 509258-86-1 outlet 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.

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

Date 6/13/01 ***Date*** 6/13/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 2/9/01 ***to*** 7/10/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***

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

Inspector's Signature ***Commissions*** 7486A/7486 NI-IS
National Board, State, and Endorsements

Date 7/10/01

* Correction [handwritten initials and date] 7-12-79

FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES* PLAN No. 21688

As required by the Provisions of the ASME Code Rules

WBG ~~BR~~ 215-14437

6/12/01

1. Manufactured by J. E. Lonergan Co., Red Lion Rd., W. of Verree, Philadelphia, Pa. 19115
   Name and Address

Model No. D-20D Order No. 509258 Contract Date 8/5/75 National Board No. N/A

2. Manufactured For Bovee & Crail Const. Co. and General Energy Resources, Inc., Richland, Wash. Order No. 215-1519Q
   Name and Address

3. Owner WASHINGTON PUBLIC POWER, HANFORD, WASHINGTON 99352
   Name and Address

4. Location of Plant Hanford #2 Jobsite, 12 Miles North of Richland, Washington 99352

5. Valve Identification RHR-RV-5 Serial No. 509258-86-1 Drawing No. A2370, Rev. F

   * [handwritten initials and date]

   Type Safety Relief Valve (Safety; Safety Relief; Pilot; Power Actuated) Orifice Size 0.110 Sq. Inch Pipe Size N/A Inch Inlet 1" Inch Outlet 2"

6. Set Pressure (PSIG) 220 450 °F Rated Temperature

   Stamped Capacity 26.9 G.P.M. ~~XXXXXX~~ ~~XXXXX~~ 10 % Overpressure Blowdown (PSIG) ***

   Hydrostatic Test (PSIG) Inlet 330 Outlet ~~XXXXXX~~ Valve 425

7. The material, design, construction and workmanship comply with ASME Code, Section III, Class 2, Edition 1974, Addenda Date Winter Addenda ~~12/31/74~~ Summer 1975

SPECIFICATION NO.	[illegible]
SECTION NO.	15G
PARAGRAPH NO.	3.7.3.4

Pressure Containing or Pressure Retaining Components

~~WBGBR 215-9832~~

	Serial No. or Identification	Material Specification Including Type or Grade
a. Castings		
Body	D8350-20	ASME SA-216/WCB
Bonnet ~~XXXXX~~	D8350-4	ASME SA-216/WCB
b. Bar Stock and Forgings		
Support Rods	N/A	N/A
Nozzle	C17792	ASME SA-479 Type 304
Disc	01629	ASME SA-479 Type 304
Spring Washers	C17792	ASME SA-479 Type 304
Adjusting Screw	91015	ASME SA-479 Type 304
Spindle	91372	ASME SA-479 Type 410

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

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J 5 7 2 1 2 7 2

FORM NV-1 (back)

	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring		
Body Studs	Heat No. X3966 — Cert. of Conformance.	ASTM A-229 — ASME SA-193, GR. B7
d. Bolting Body Nuts	— Cert. of Conformance	ASME SA-194, GR. 2H

WBG BR 215-14437

e. Other Parts such as Pilot Components

Cap	D8224-4	ASME SA-216/WCB

** Blowdown not specified by code.

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

Date 7-12 19 79 Signed J. E. LONERGAN COMPANY By T. A. Peters
Manufacturer

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

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Penna. and employed by The Hartford Stm. Boiler I.&I. Co. of Hartford, Conn. have inspected the equipment described in this Data Report on 7-12 19 79 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

Date 7-12 19 79

(Inspector) Commissions Pa. 2261
(National Board, State, Province and No.)

Printed in U.S.A. 1/73

PLAN No 2-1689

ENERGY NORTHWEST

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

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

Date: 06/13/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
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.

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-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

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [ ] **Nominal Operating Pressure** [ ] **Other** [X] **None**

Test Pressure: Psig **Test Temperature:** ° F

Component Design Pressure: Psig **Temperature:** ° F

9. Remarks: See attached NV-1 Code Data Report for the replacement relief valve CIA-RV-5A, Serial No N95308-00-0002.

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

Date 6/13/01 ***Date*** 6/13/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 4/17/01 ***to*** 6/22/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***

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

Inspector's Signature ***Commissions*** 7486/7486 NB IS

National Board, State, and Endorsements

Date 6/22/01

PLAN NO. 2-1689 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 6/12/01

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)

4. Valve 8614811D (Model No./Series No.) Orifice size .398 (in.) Nom. Inlet size 3/4 (in.) Outlet size 1 (in.)

5. ASME Code, Section III, Division 1: 1986 (Edition) 1986 (Addenda Date) 3 (Class) -- (Code Case No.)

6. Type SAFETY RELIEF (Spring, Pilot or Power Operated) Valve I.D./Tag No. CIA-RV-5A

200 (Set Pressure, psig) 10% OF SP (Blowdown, psi) 100 (Rated Relieving Temperature) 425 (Hydro Test psig, Inlet) at 70 °F

7. Ident. N95308-00-0002 (Cert. Holder's serial no.) ____ (CRN) DS-C-95308 REV.A (Drawing No.) -- (Nat'l Bd. No.) 2000 (Yr. Built)

8. Control Ring Settings CIA-RV-5A, S|N N95308-00-0002

9. Pressure Retaining Items:

	Serial No. or Identification	Material Spec. Including Type or Grade	Tensile Strength (psi)
Body	--		
Bonnet	--		
Support Rods	---	---	---
Nozzle	--		
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
CYLINDER	N97811-31-0003	SA351 GR.CF3M	70,000
LJSE	N97812-31-0002	SA182 GR.F316L	75,000
FLANGE	N96422-56-0103	SA182 GR.F316L	75,000

Form NV-1 (Back) Certificate Holder's Serial No. N95308-00-0002

10. Relieving capacity 469 SCFM AIR @ 60 @ 10 overpressure as certified by the National Board 08/08/91
(steam or fluid, lb/hr) (date)

11. Remarks:

CERTIFICATE OF DESIGN

Design Specification certified by JACK COLE PE State WA Reg. No. 20653

Design Report certified by _____ PE State _____ Reg. No. _____

CERTIFICATE OF COMPLIANCE

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

NV Certificate of Authorization No. N-1878 Expires Sep. 30, 2001

Date 24 mar 00 Name Anderson Greenwood Crosby Wrentham, MA (NV Certificate Holder) Signed _____ (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Insurance Co. of Johnston, Rhode Island have inspected the valve described in this Data Report on March 24, 20 00 and state that to the best of my knowledge and belief, the N 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 warrant, 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 03/24/2000 Signed _____ (Authorized Inspector) Commissions MA-1418 N (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

PLAN No 2-1690

ENERGY NORTHWEST

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

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

Date: 06/13/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
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.

ENERGY NORTHWEST

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

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

Test Pressure: Psig **Test Temperature:** ° F

Component Design Pressure: Psig **Temperature:** ° F

9. Remarks: See attached NV-1 Code Data Report for the replacement relief valve CIA-RV-5B, Serial No N95308-00-0004.

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 (signature)
Kuldip Singh - Program Lead Engineer (PLE)

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

Date 6/13/01 **Date** 6/13/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 4/17/01 ***to*** 6/22/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***

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

(signature) **Commissions** 7486W/7486 NI IS
Inspector's Signature National Board, State, and Endorsements

Date 6/22/01

PLAN NO. 2-1690

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

[signature] 6/12/01

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)

4. Valve 8614811D (Model No./Series No.) Orifice size .398 (in.) Nom. Inlet size 3/4 (in.) Outlet size 1 (in.)

5. ASME Code, Section III, Division 1: 1986 (Edition) 1986 (Addenda Date) 3 (Class) – (Code Case No.)

6. Type SAFETY RELIEF (Spring, Pilot or Power Operated) Valve I.D./Tag No. CIA-RV-5B

200 (Set Pressure, psig) 10% OF SP (Blowdown, psi) 100 (Rated Relieving Temperature) 425 (Hydro Test psig, Inlet) at 70 °F

7. Ident. N95308-00-0004 (Cert. Holder's serial no.) ______ (CRN) DS-C-95308 REV.A (Drawing No.) – (Nat'l Bd. No.) 2000 (Yr. Built)

8. Control Ring Settings CIA-RV-5B S/N N95308-00-0004

9. Pressure Retaining Items:

	Serial No. or Identification	Material Spec. Including Type or Grade	Tensile Strength (psi)
Body	–		
Bonnet	–		
Support Rods	—	—	—
Nozzle	–		
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
FLANGE	N96422-56-0104	SA182 GR.F316L	75,000

Form NV-1 (Back) Certificate Holder's Serial No. N95308-00-0004

10. Relieving capacity 469 SCFM AIR @ 60 @ 10 overpressure as certified by the National Board 08/08/9
(steam or fluid, lb/hr) (date)

11. Remarks:

CERTIFICATE OF DESIGN

Design Specification certified by JACK COLE PE State WA Reg. No. 20653

Design Report certified by PE State Reg. No.

CERTIFICATE OF COMPLIANCE

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

NV Certificate of Authorization No. N-1878 Expires Sep. 30, 2001

Date 24 mar 00 Name Anderson Greenwood Crosby Wrentham, MA Signed
(NV Certificate Holder) (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Insurance Co. of Johnston, Rhode Island have inspected the valve described in this Data Report on March 24, 20 00 and state that to the best of my knowledge and belief, the N 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 warrant, 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 03/24/2000 Signed Commissions MA-1418 'N'
(Authorized Inspector) (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

PLAN No 2-1692

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: Energy Northwest
(b) Repair Organization P.O. No, Job No, etc:: Energy Northwest
(c) Type Code Symbol Stamp: Not Applicable
(d) Certificate Of Authorization No.: Not Applicable
(e) Expiration Date: Not Applicable
4. Identification Of System: Main Steam (MS) System
5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with 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

Date: 05/31/00
Sheet: 1 of 1
Unit: Not Applicable

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

PLAN No 2-1692

ENERGY NORTHWEST

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

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

Test Pressure: Psig
Component Design Pressure: Psig
Test Temperature: ° F
Temperature: ° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this repair ***conforms to the rules of the ASME Code, Section XI.***
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

Prepared By Kuldip Singh ***Signed By*** Kuldip Singh

Kuldip Singh - Program Lead Engineer (PLE) — Kuldip Singh - Program Lead Engineer (PLE)

Date 6/2/00 ***Date*** 6/2/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 4-11-00 ***to*** 6/6/00 ***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 WI IS 7486

Inspector's Signature — National Board, State, and Endorsements

Date 6/6/00

PLAN No 2-1693

ENERGY NORTHWEST

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

Date: 05/15/00
Sheet: 1 of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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.

PLAN No 2-1693

ENERGY NORTHWEST

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

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

Test Pressure: Psig
Component Design Pressure: Psig
Test Temperature: ° F
Temperature: ° F

9. Remarks: Pressure test to confirm pressure boundary integrity of the joints for DCW-HX-1B2 is documented in ASME Section XI plan No 2-1694.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this repair ***conforms to the rules of the ASME Code, Section XI.***
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

Prepared By Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)
Signed By Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)
Date 5/15/00 ***Date*** 5/15/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 4-27-00 ***to*** 5-22-00 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

A. M. [signature] — Inspector's Signature
Commissions 7486W/7486 NI IS — National Board, State, and Endorsements

Date 5-22-00

PLAN No 2-1694

ENERGY NORTHWEST

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

Date: 05/15/00
Sheet: 1 of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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 bolted 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.

PLAN No 2-1694

ENERGY NORTHWEST

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

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

Test Pressure: 215 Psig
Component Design Pressure: 300 Psig
Test Temperature: 58° F
Temperature: 300° F

9. Remarks: None.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement ***conforms to the rules of the ASME Code, Section XI.***
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

Date 5/15/00 ***Date*** 5/15/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 4-27-00 ***to*** 5-22-00 ***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 7486W/7486 NIS I

Inspector's Signature

National Board, State, and Endorsements

Date 5-22-00

PLAN No 2-1695

ENERGY NORTHWEST

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

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

Date: 06/27/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCIC(1)-4CL2	WPPSS *	RCIC(1)-4CL2-P1	N/A	N/A	1984	----------	Yes, Code Class 2
RCIC-V-12	Velan	101	N/A	N/A	1976	Replaced	Yes, Code Class 2
RCIC-V-90	Enertech	11046	N/A	N/A	2000	Replacement	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.

PLAN No 2-1695

ENERGY NORTHWEST

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

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

Test Pressure: 980 Psig **Test Temperature:** 82° F

Component Design Pressure: 1500 Psig **Temperature:** 170° F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve RCIC-V-90, Serial No 11046.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/27/01

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

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*** 5/19/01 ***to*** 7/24/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***

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

M. M. Fowler
Inspector's Signature

Commissions 7486 w/7486 WIS IS
National Board, State, and Endorsements

Date 7/24/01

PLAN No. 2-1695

FORM NPV-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES*
As Required by the Provisions of the ASME Code, Section III, Division 1

1. Manufactured and certified by Enertech, A Div. of Curtiss-Wright Flow Control Corp.; 2950 Birch St.; Brea, CA 92821
(name and address of N Certificate Holder)

2. Manufactured for Energy Northwest; P.O. Box 968; Richland, WA 99352-0968
(name and address of Purchaser)

3. Location of installation Columbia Generating Station; North Powerplant Loop; Richland, WA 99352
(name and address)

4. Model No., Series No., or Type DRV-Z Drawing MD20550 Rev. A CRN None

5. ASME Code, Section III, Division 1: 1995 (edition) 1996 (addenda date) 2 (class) None (Code Case no.)

6. Pump or valve Nozzle Check Valve Nominal inlet size 6 (in.) Outlet size 6 (in.)

7. Material: Body SA-105 Bonnet N/A Disk SA-479 T316 Bolting N/A

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disk Serial No.
11046	None	KBW-001	None	KCE-001
	RCIC-V-90, SIN 11046			
		[signature]		
		6/23/01		

* 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.

V. Hamson
2 Pages.

Certificate Holder's Serial No. 11046

8. Design conditions 1500 (pressure) psi 170 (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 pressure 200 psi

11. Remarks: Qty. 1, Enertech Job Number 23947V

CERTIFICATION OF DESIGN

Design Specification certified by Abbas A. Mostala P.E. State WA Reg. no. 0028777

Design Report certified by Ira J. Silverman P.E. State CA Reg. no. 23241

CERTIFICATE OF COMPLIANCE

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

N Certificate of Authorization No. N-2826 Expires 10/26/02

Date 12/29/00 Name Enertech (N Certificate Holder) Signed Ray Lyschuck (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by Hartford Steam Boiler Insp. & Insur. Co. of Connecticut have inspected the pump, or valve, described in this Data Report on 12-29-2000, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

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

Date 12/29/00 Signed William Mayer (Authorized Inspector) Commissions CA 1494 (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

PLAN No 2-1696

ENERGY NORTHWEST

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

Date: 06/26/01
Sheet: 1 Of 1
Unit: Not Applicable

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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	WPPSS *	RCIC(2)-1-P1	N/A	N/A	1983	----------	Yes, Code Class 2
RCIC(1)-4CL2	WPPSS *	RCIC(1)-4CL2-P1	N/A	N/A	1984	----------	Yes, Code Class 2
RCIC-V-758	Borg Warner	79962	N/A	N/A	1983	Replacement	Yes, Code Class 1
RCIC-RV-3	Anderson Greenwood	N98651-00-0001	N/A	N/A	2001	Replacement	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.

PLAN No 2-1696

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [ ] **Nominal Operating Pressure** [ ] **Other** [X] **None**
Test Pressure: Psig
Component Design Pressure: Psig
Test Temperature: ° F
Temperature: ° F

9. Remarks: See attached NV-1 Code Data Report for new relief valve RCIC-RV-3, Serial No N98651-00-0001. See attached NPV-1 Code Data Report for new valve RCIC-V-758, Serial No 79962.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement ***conforms to the rules of the ASME Code, Section XI.***
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

Date 6/26/01

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

Date 6/26/01

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*** 2/26/01 ***to*** 7/11/01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this Inspection.

M. M. Griffith
Inspector's Signature

Commissions 7466 w/7486 WI IS
National Board, State, and Endorsements

Date 7/11/01

PLAN NO. 2-1696

RCIC-RV-3, S/N N98651-00-0001

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

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. NV1000119 Customer Order No. 00307693

2. Manufactured for ENERGY NORTHWEST
(Name and Address of Purchaser)

3. Location of Installation COLUMBIA GENERATING STATION
(Name and Address)

4. Valve JRAK-BS (Model No./Series No.) Orifice size .124 (in.) Nom. Inlet size 3/4 (in.) Outlet size 1 (in.)

5. ASME Code, Section III, Division 1: 1995 (Edition) 1996 (Addenda Date) 2 (Class) -- (Code Case No.)

6. Type SAFETY RELIEF (Spring, Pilot or Power Operated) Valve I.D./Tag No. RCIC-RV-3

1500 (Set Pressure, psig) 10% OF SP (Blowdown, psi) 140 (Rated Relieving Temperature) 2250 (Hydro Test psig, Inlet) at 70 °F

7. Ident. N98651-00-0001 (Cert. Holder's serial no.) --- (CRN) DS-C-98651 REV.A (Drawing No.) -- (Nat'l Bd. No.) 2001 (Yr. Built)

8. Control Ring Settings

9. Pressure Retaining Items:

	Serial No. or Identification	Material Spec. Including Type or Grade	Tensile Strength (psi)
Body	N98428-31-0001	ASME SA351 GR.CF8M	70,000
Bonnet	N98431-31-0001	ASME SA351 GR.CF8M	70,000
Support Rods	---	---	---
Nozzle	N98399-31-0001	ASME SA479 TYPE 316	75,000
Disc	N98476-31-0001	ASME SA479 TYPE 316	75,000
	N88613-02-3267		
Spring Washers	N88613-04-3314	ASME SA193 GR.B6	110,000
Adjusting Bolt	N97280-31-0001	ASME SA193 GR.B6	110,000
Spindle	N90303-85-0390	ASME SA193 GR.B6	110,000
Spring	NX2617-0181	ASTM A313 TYPE 316	N/A
Bolting	---	---	---
Other Items			
BONNET STUD	N95945	ASME SA193 GR.B7	N/A
BONNET NUT	N95883	ASME SA194 GR.2H	N/A
INLET STUD	N96237	ASME SA193 GR.B7	N/A

Q.C.-44E

Form NV-1 (Back) Certificate Holder's Serial No. N98651-00-0001 Sheet 2 of 2

10. Relieving capacity 11 GPM WTR @ 70 (steam or fluid, lb/hr) @ 10 overpressure as certified by the National Board 02/10/81 (date)

11. Remarks: _____

CERTIFICATE OF DESIGN

Design Specification certified by JACK R. COLE PE State WA Reg. No. 20653

Design Report certified by _____ PE State _____ Reg. No. _____

CERTIFICATE OF COMPLIANCE

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

NV Certificate of Authorization No. N-1878 Expires Sep. 30, 2001

Date 18-MAY-01 Name Anderson Greenwood Crosby Wrentham, MA (NV Certificate Holder) Signed D. E. Tuttle (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Insurance Co. of Johnston, Rhode Island have inspected the valve described in this Data Report on May 18, 20 01 and state that to the best of my knowledge and belief, the N 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 warrant, 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 5-18-01 Signed _____ (Authorized Inspector) Commissions MA-1418 N (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

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

[signature] 6/25/01

1. Manufactured by Nuclear Valve Div.,Borg Warner, 7500 Tyrone Ave., Van Nuys, Calif.
   (Name and Address of N Certificate Holder)
2. Manufactured for Washington Public Power Supply Systems, 3000 George Washington Way Richland, Washington
   (Name and Address of Purchaser or Owner)
3. Location of Installation Richland, Washington WPPSS Hanford #2 Job Site
   (Name and Address)
4. Pump or Valve Y Globe Valve . Nominal Inlet Size 3/4 (inch) Outlet Size 3/4 (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	1500#	79951 thru	N/A	76590-2	1	N/A	1983
(2)		79970					
(3)							
(4)							
(5)		RCIC-V-758, S/N 79962					
(6)							
(7)							
(8)							
(9)							
(10)							

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

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Disc-Code 1X20, 1T01, 1W10, 5F32	Stellite #6	Rex Precision	
(b) Forgings			
Body-Code 1V46	SA 105	Kawaguchi	

FOR INFORMATION ONLY

(1) For manually operated valves only.

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

BECHTEL

1 8 0 5 4 5 1 2

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(d) Other Parts			
Backseat-Code 4J86	SA 564 Ty 630	Jorgensen Steel	
4H70,5E84			

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

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. 1, Edition 1974.
Addenda Winter '75 (Date). Code Case No. N/A. Date 7/29/83

Signed Nuclear Valve Div.,Borg Warner (N Certificate Holder) by [signature]

Our ASME Certificate of Authorization No. N-1254 to use the N (N) symbol expires 10/27/84 (Date).

CERTIFICATION OF DESIGN

Design information on file at NVD of Borg Warner, 7500 Tyrone Ave., Van Nuys, Ca. 91409

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

Design specifications certified by (1) David J. Murphy

PE State Washington Reg. No. 12542

Stress analysis certified by (1) Byron H. Leonard

PE State CA Reg. No. E123

FOR INFORMATION ONLY

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by Lumbermen's Mutual Casualty of Long Grove, Illinois have inspected the pump, or valve, described in this Data Report on 7/29 1983, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

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

Date 7/29 1983

[signature] (Inspector)

Commissions 1275 CA. NB 7669 (Nat'l Bd., State, Prov. and No.)

BECHTEL

653

PLAN No 2-1697

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** 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**

Date: 06/16/01
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
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
Valve	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.

PLAN No 2-1697

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [ ] **Nominal Operating Pressure** [ ] **Other** [X] **None**

Test Pressure: Psig **Test Temperature:** ° F

Component Design Pressure: Psig **Temperature:** ° F

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

EPN No	Serial No
PB1195	PB1203
PB1198	PB1204
PB1200	GP1378
PB1201	

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/16/01 ***Date*** 6/16/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ and employed by _____ _____ have inspected the components described in this Owner's Report during the period _____ to _____ and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Not Required - Replacement 1" NPS And Smaller
Inspector's Signature

Commissions _____
National Board, State, and Endorsements

Date _____

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. 2-1697

1. Manufactured by Dragon Valves, Inc., 13457 Excelsior Dr., Norwalk, CA. 90650
(Name and Address of N Certificate Holder)
2. Manufactured for Washington Public Power Sup. Sys. P.O. Box 968 Richland, WA. 99352-0968
(Name and Address of Purchaser or Owner)
3. Location of Installation WNP 2 Site Richland, WA. 99352
(Name and Address)
4. Pump or Valve Valve. Nominal Inlet Size 1/2 (inch) Outlet Size 1/2 (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	7N058SWD	PB1194	N/A	10580	2	N/A	1993
(2)		thru		Rev. C			
(3)		PB1204					
(4)							
(5)		SERIAL NO.		SERIAL NO.			
(6)		PB-1195		PB-1201			
(7)		PB-1198		PB-1203			
(8)		PB-1200		PB-1204			
(9)							
(10)							

5. Instrument Valve (11 Pcs.)
(Brief description of service for which equipment was designed)

Rudolf Singh 6/15/01

6. Design Conditions 3600 (Pressure) psi 100 (Temperature) °F or Valve Pressure Class 1500 (1)
7. Cold Working Pressure 3600 psi at 100°F.
8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings N/A			
(b) Forgings			
HT.AJ9461	ASME SA182 GR. F316	Ajax Forge Co.	Body
HT.A19167	ASME SA182 GR. F316	Ajax Forge Co.	Bonnet Yoke

(1) For manually operated valves only.

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

FORM NPV-1 (Back)

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(d) Other Parts			
HT.853543	ASME SA564 GR. 630	Carpenter Tech.	Disc

02568600886

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

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. 1., Edition 1974, Addenda S 75 (Date), Code Case No. N/A. Date August 23. 1993

Signed DRAGON VALVES INC. (N Certificate Holder) by R L Simpson

Our ASME Certificate of Authorization No. N 1033 to use the N (N) symbol expires 10/1/93 (Date)

CERTIFICATION OF DESIGN

Design information on file at Washnington Public Power Sup. Sys.

Stress analysis report (Class 1 only) on file at N/A

Design specifications certified by (1) David J. Murphy

PE State WA. Reg. No. 12542

Stress analysis certified by (1) N/A

PE State ..... Reg. No. .....

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by H.S.B. INSP. & INS. CO. of HARTFORD CT. have inspected the pump, or valve, described in this Data Report on AUGUST 24 19 93, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

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

Date 8-24 19 93

(Inspector) Commissions CA 1716 (Nat'l Bd., State, Prov. and No.)

GP-1378

PLAN NO. 2-1697

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

Manufactured by Dragon Valves, Inc., 13457 Excelsior Dr., Norwalk, CA 90650
(Name and Address of N Certificate Holder)

Manufactured for Johnson Controls, Inc., P. O. Box 429, Richland, WA 99352
(Name and Address of Purchaser or Owner)

Location of Installation WNP2 Hanford Jobsite, Richland, WA 99352
(Name and Address)

Pump or Valve Valve . Nominal Inlet Size 1/2 Tube (inch) Outlet Size 1/2 Tube (inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1)	7N05SSWD	GP1363	None	10580	2	None	1981
(2)		thru					
(3)		GP1387					
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

SERIAL NO. GP 1378

[signature] 6/15/01

OS&Y Instrumentation Valves (25 Pcs.)
(Brief description of service for which equipment was designed)

Design Conditions 3600 (Pressure) psi 100 (Temperature) °F or Valve Pressure Class (1)

Cold Working Pressure 3600 psi at 100°F.

Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings — None			
(b) Forgings			
Body	ASME SA182 Gr. F316	Ajax Forge Co.	HT 843801
Yoke	ASME SA182 Gr. F316	Ajax Forge Co.	HT 77942

PO. [illegible]
QA REVIEWED
BY [signature]
DATE [illegible]

(1) For manually operated valves only

Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 1, 2 and ... on this Data Report ...

Part No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting None			
(d) Other Parts			
Disc	ASME SA564 Gr. 630	Carpenter Tech.	HT 840503

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

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1., Edition 1974, Addenda 6-30-75 (Date), Code Case No. None, Date May 18, 1981

Signed DRAGON VALVES, INC. (N Certificate Holder) by _____

Our ASME Certificate of Authorization No. N-1033 to use the N (N) symbol expires 5-30-81 (Date).

CERTIFICATION OF DESIGN

Design information on file at Johnson Controls, Inc.

Stress analysis report (Class 1 only) on file at not applicable

Design specifications certified by (1) David J. Murphy

PE State WA Reg. No. 12542

Stress analysis certified by (1) not required

PE State _____ Reg. No. _____

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by DOSH of CALIFORNIA have inspected the pump, or valve, described in this Data Report on May 28, 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, Section III.

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

Date May 28 1981

_____ Commissions CA 1656

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

PLAN No 2-1698

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: 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

Date: 07/19/00
Sheet: 1 of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare Valve	Crosby	N63790-03-0045	N/A	N/A	1981	----------	Yes, Code Class 1
Disc Insert	Crosby	N93185-49-0190	N/A	N/A	N/A	Replaced	No, Code Class 1
Disc Insert	Crosby	N97499-32-0014	N/A	N/A	N/A	Replacement	No, Code Class 1
Nozzle	Crosby	N93184-50-0149	N/A	N/A	N/A	Replaced	No, Code Class 1
Nozzle	Crosby	N97498-44-0108	N/A	N/A	N/A	Replacement	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.

PLAN No 2-1698

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [X] **Nominal Operating Pressure** [ ] **Other** [ ] **None**

Test Pressure: 10 Psig **Test Temperature:** 83° F

Component Design Pressure: 1165 Psig **Temperature:** 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Main Steam Relief Valve (MSRV), Serial No N63790-03-0045 (Pre Mod Serial No N63790-00-0045), 2) See attached NV-1 Code Data Report for Main Steam Relief Valve (MSRV), Serial No N63790-00-0045 (Post Mod Serial No N63790-03-0045), 3) Component design pressure of 1165 Psig 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 — Kuldip Singh - Program Lead Engineer (PLE)

Date 8/1/00

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

Date 8/1/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 6-5-00 ***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.

Inspector's Signature

Commissions 7486W/7486 I IS

National Board, State, and Endorsements

Date 8-23-00

FORM NVR-1 REPORT OF REPAIR ☒ REPLACEMENT ☒
OF NUCLEAR PRESSURE RELIEF DEVICES PLAN No. 2-1698

1. Work performed by: **NWS Technologies, LLC** Purchase Order # C31331 WRO # 008
131 Venture Boulevard, Spartanburg, SC 29301 Rudolf Swab 7/20/00

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: N63790-00-0045

HB-65-BP-FN	new s/n: **N63790-03-0045**	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)	(addenda)	(Code Case(s))

8. Construction Code used for repairs, replacements:

1971	N/A	N/A
(edition)	(addenda)	(Code Case(s))

9. Design responsibilities: N/A

10. Opening pressure: 1165 psig
Set-pressure adjustment made at: NWS Technologies, LLC using steam

11. Description of work (include name and identifying number of replacement parts): See attachment 1.

12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

I, Cesar V. Sierra certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacemtn of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.
National Board Certificate of Authorization No. **632** to use the "VR" stamp expires April 3, 2003.
National Board Certificate of Authorization No. **81** to use the "NR" stamp expires April 9, 2003.

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

CERTIFICATE OF INSPECTION

I, **Carl R. Enos** holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of **Tennessee** and employed by **Hartford Steam Boiler Inspection & Insurance Co.** of Hartford, CT have inspected the repair, modification or replacement described in this report on 6/19/00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.
By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification or replacement described in this report. Futhermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: **N63790-03-0045**

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

11. Description of work:
The valve was disassembled. The nozzle was removed and returned to site with the disc.
WNP-2 machined the nozzle to the new flexi-disc dimensions.
NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.
Disc S/N: **N97499-32-0014** and Nozzle S/N: **N97498-44-0108**
(pre mod s/n N93184-44-0108)
were installed in the valve.
Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:
Disc Holder Spiral Pins (2): MC 54407794
Eductor Gasket: MC 56230461

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

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

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

~~[illegible]~~

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

PLAN NO. 2-1698

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

[illegible] QC-44D 7/20/[illegible]

DATA REPORT
Safety and Safety Relief Valves

FOR INFORMATION ONLY

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093
Name and Address

Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A

2. Manufactured For General Electric Company, 175 Curtner Ave., San Jose, CA 95125 Order No. 205-AJ986
Name and Address

3. Owner Washington Public Power Supply Systems, Richland, Washington 99352
Name and Address

4. Location of Plant Hanford Reservation, Richland, Washington 99352

5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0045 Drawing No. DS-A-63790 Rev. C

Type Safety Relief (Safety, Safety Relief, Pilot, Power Actuated) Orifice Size R Inch Pipe Size -- Inch Inlet 6 Inch Outlet 10 Inch

6. Set Pressure (psig) 1150 575° F Rated Temperature

Stamped Capacity 865,725 @ 3 %Overpressure -- Blowdown (psig) 2% to 11%

Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve) 1100 psig (Body Only)
(Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. ~~Castings~~ Bar Stock & Forgings		
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
b. ~~[illegible]~~		
~~[illegible]~~ Disc Insert	N93185-34-0076	ASME SA637 Gr. 718
Nozzle	N93184-32-0047	ASME SA182 Gr. F316
Disc Holder*K55484-35-0092	*N89714-34-0133	AMS 5662B
Spring Washers K62858-35-0027	K62856-35-0083 K62857-35-0048	ASTM A105-71 Gr. II ASME SA105 Gr. II
Adjusting Bolt	N93410-33-0052	ASME SA193 Gr. B6
Spindle Point K62873-37-0146	N89720-43-0143	ASME SA564 Type 630
c. Spring K62858-35-0027	NX2689-0123	ASTM A304-66 Gr. 4161H
d. Bolting		
e. ~~[illegible]~~ Spindle Ball K62873-37-0146	N93213-0213	Stoody #6
Thrust Bearing Adapter	N93409-32-0047	ASME SA193 Gr. B6
Bonnet Stud (I17)	N93207-0537 thru 0548	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Bonnet Stud Nut (J87)	N93210-0757 thru 0768	ASME SA194 Gr. 2H
Inlet Stud (BW6)	N93216-0539 thru 0550	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Inlet Stud Nut (BW8)	N93218-0543 thru 0554	ASTM A194-71 Gr. 2H ASME SA194 Gr. 2H
Adjusting Bolt Button	N93411-32-0043	ASME SA193 Gr. B6

7X00380093

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

N63790-00-0045

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

Design specifications certified by[1] Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by[1] W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

[1]Signature not required - list name only.

FOR INFORMATION ONLY

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Systems* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 1/9, 1981 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 1/9 1981.

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

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

ZX00380214

PLAN No 2-1699

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest — **Date:** 07/19/00
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352 — **Sheet:** 1 of 1
2. **Plant:** Columbia Generating Station — **Unit:** Not Applicable
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** 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	Crosby	N63790-03-0047	N/A	N/A	1981	----------	Yes, Code Class 1
Disc Insert	Crosby	N93185-51-0197	N/A	N/A	N/A	Replaced	No, Code Class 1
Disc Insert	Crosby	N97499-34-0029	N/A	N/A	N/A	Replacement	No, Code Class 1
Nozzle	Crosby	N93184-50-0146	N/A	N/A	N/A	Replaced	No, Code Class 1
Nozzle	Crosby	N97498-44-0114	N/A	N/A	N/A	Replacement	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 nozzle 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) Nozzle 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.

PLAN No 2-1699

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [X] **Nominal Operating Pressure** [ ] **Other** [ ] **None**

Test Pressure: 10 Psig **Test Temperature:** 82° F

Component Design Pressure: 1175 Psig **Temperature:** 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Main Steam Relief Valve (MSRV), Serial No N63790-03-0047 (Pre Mod Serial No N63790-00-0047), 2) See attached NV-1 Code Data Report for Main Steam Relief Valve (MSRV), Serial No N63790-00-0047 (Post Mod Serial No N63790-03-0047), 3) Component design pressure of 1175 Psig 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 — Kuldip Singh - Program Lead Engineer (PLE)

Date 8/1/00

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

Date 8/1/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 6/15/00 ***to*** 8/13/00 ***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.

Inspector's Signature

Commissions 7486 w/7486 I IS

National Board, State, and Endorsements

Date 8/13/00

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

PLAN NO. 2-1699

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: N63790-00-0047

HB-65-BP-FN	new s/n: **N63790-03-0047**	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)	(addenda)	(Code Case(s))

8. Construction Code used for repairs, replacements:

1971	N/A	N/A
(edition)	(addenda)	(Code Case(s))

9. Design responsibilities: N/A
10. Opening pressure: 1175 psig
    Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATE OF INSPECTION

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

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

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: **N63790-03-0047**

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

11. Description of work:
The valve was disassembled. The nozzle was removed and returned to site with the disc.
WNP-2 machined the nozzle to the new flexi-disc dimensions.
NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.
Disc S/N: **N97499-34-0029** and Nozzle S/N: **N97498-44-0114**
(pre mod s/n N93184-44-0114)
were installed in the valve.
Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2):	MC 54407794
Eductor Gasket:	MC 56230461
Spindle:	New S/N: K82137-33-0011 (old S/N: K82137-34-0015)
Inlet Studs (2):	H/C: N B7 HBW

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

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

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

CROSBY

CROSBY VALVE & GAGE COMPANY

WRENTHAM, MASS

PLAN No. 2-1699

7/20/00

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

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093
   Name and Address

   Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A

2. Manufactured For General Electric Company, 175 Curtner Ave., San Jose, CA 95125 Order No. 205-AJ986
   Name and Address

3. Owner Washington Public Power Supply System, Richland, Washington 99352
   Name and Address

4. Location of Plant Hanford Reservation, Richland, Washington 99352

5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0047 Drawing No. DS-A-63790 Rev. C

   Type Safety Relief (Safety, Safety Relief, Pilot, Power Actuated) Orifice Size R Inch Pipe Size -- Inch Inlet 6 Inch Outlet 10 Inch

6. Set Pressure (psig) 1175 Rated Temperature 575° F

   Stamped Capacity 884,314 @ 3 % Overpressure -- Blowdown (psig) 2% to 11%

   Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve) 1100 psig (Body Only)
   (Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings		
Body	N93183-35-0066	ASTM A105-71 Gr. II ASME SA105 Gr. II
Bonnet	N93407-35-0029	ASTM A105-71 Gr. II ASME SA105 Gr. II
b.		
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
Spring Washers K62858-35-0029	K62856-35-0085 K62857-35-0050	ASTM A105-71 Gr. II ASME SA105 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		ZX00380110
e. Spindle Ball K62873-37-0148	N93213-0215	Stoody #6
Thrust Bearing Adapter	N93409-32-0049	ASME SA193 Gr. B6
Bonnet Stud (BW5, I17)	N93207-0561 thru 0572	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Bonnet Stud Nut (J87)	N93210-0781 thru 0792	ASME SA194 Gr. 2H
Inlet Stud (BW6)	N93216-0563 thru 0574	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Inlet Stud Nut (BW8)	N93218-0567 thru 0578	ASTM A194-71 Gr. 2H ASME SA194 Gr. 2H
Adjusting Bolt Button	N93411-33-0055	

...ve originally built against Crosby Order No. N103600, Assembly No N56000. Valve ...ification consists of replacement of the Disc Insert, Nozzle, Bonnet Stud Nuts, ...justing 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.

N63790-00-0047

CERTIFICATE OF COMPLIANCE

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

Class 1

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

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

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

Design specifications certified by[1] Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by[1] W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

[1]Signature not required - list name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Systems* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 1/9, 1981 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 1/9 1981

FOR INFORMATION ONLY

Signed [signature] (Inspector) Commissions MASS 1264 (Nat'l. Bd., State, Prov. and No.)

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

ZX00380111

PLAN No 2-1700

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: 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

Date: 07/19/00
Sheet: 1 of 1
Unit: Not Applicable

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	Crosby	N63790-03-0048	N/A	N/A	1980	----------	Yes, Code Class 1
Disc Insert	Crosby	N93185-45-0155	N/A	N/A	N/A	Replaced	No, Code Class 1
Disc Insert	Crosby	N97499-34-0030	N/A	N/A	N/A	Replacement	No, Code Class 1
Nozzle	Crosby	N93184-47-0120	N/A	N/A	N/A	Replaced	No, Code Class 1
Nozzle	Crosby	N97498-42-0104	N/A	N/A	N/A	Replacement	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 nozzle 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.

PLAN No 2-1700

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [X] **Nominal Operating Pressure** [ ] **Other** [ ] **None**

Test Pressure: 10 Psig
Component Design Pressure: 1175 Psig
Test Temperature: 81° F
Temperature: 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Main Steam Relief Valve (MSRV), Serial No N63790-03-0048 (Pre Mod Serial No N63790-00-0048), 2) See attached NV-1 Code Data Report for Main Steam Relief Valve (MSRV), Serial No N63790-00-0048 (Post Mod Serial No N63790-03-0048), 3) Component design pressure of 1175 Psig 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 — Kuldip Singh - Program Lead Engineer (PLE)
Date 8/1/00

Signed By Kuldip Singh — Kuldip Singh - Program Lead Engineer (PLE)
Date 8/1/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington **and employed by** Factory Mutual Insurance Company of Johnston, Rhode Island **have inspected the components described in this Owner's Report during the period** 6-5-00 **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.

Inspector's Signature

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

Date 8/23/00

FORM NVR-1 REPORT OF REPAIR ☒ REPLACEMENT ☒
OF NUCLEAR PRESSURE RELIEF DEVICES PLAN No. 2-1700

1. Work performed by: **NWS Technologies, LLC** Purchase Order # C31331 WRO # 008
   131 Venture Boulevard, Spartanburg, SC 29301
2. Work performed for: Energy Northwest - Columbia Generating Station
3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia Generating Station, North Power Plant Loop, Richland, WA 99352-0968
5. a: Repaired pressure relief device: Main Steam Safety Relief Valve
   b: Name of manufacturer: Crosby Valve & Gage Co.
   c: Identifying nos. old s/n: N63790-00-0048

HB-65-BP-FN	new s/n: N63790-03-0048	N/A	steam	6 x 10	1980
(type)	(mfr's S/N)	(NB#)	(service)	(size)	(yr.built)

   d: Construction Code:

ASME Sec. III Div. 1	1971	N/A	1567 & 1711	1
(name/section/division)	(edition)	(addenda)	(Code Cases(s))	(Code Class)

6. ASME Code Section XI applicable for inservice inspection:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

7. ASME Code Section XI used for repairs, replacements:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

8. Construction Code used for repairs, replacements:

1971	N/A	N/A
(edition)	(addenda)	(Code Case(s))

9. Design responsibilities: N/A
10. Opening pressure: 1175 psig
    Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

I, Cesar V. Sierra certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacemtn of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.
National Board Certificate of Authorization No. **632** to use the "VR" stamp expires April 3, 2003.
National Board Certificate of Authorization No. **81** to use the "NR" stamp expires April 9, 2003.

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

CERTIFICATE OF INSPECTION

I, **Carl R. Enos** holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of **Tennessee** and employed by **Hartford Steam Boiler Inspection & Insurance Co.** of Hartford, CT have inspected the repair, modification or replacement described in this report on 6/19/00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.
By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification or replacement described in this report. Futhermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: **N63790-03-0048**

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

11. Description of work:
The valve was disassembled. The nozzle was removed and returned to site with the disc.
WNP-2 machined the nozzle to the new flexi-disc dimensions.
NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.
Disc S/N: **N97499-34-0030** and Nozzle S/N: **N97498-42-0104**
(pre mod s/n N93184-42-0104)
were installed in the valve.
Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:
Disc Holder Spiral Pins (2): MC 54407794
Eductor Gasket: MC 56230461
Inlet Studs (2): H/C: N B7 HBW

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

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

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

~~MS-RV-1A~~

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

PLAN NO. Z-1700

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

Q.C.-44D
7/20/80

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093
Name and Address

Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A

2. Manufactured For General Electric Company, 175 Curtner Ave., San Jose, CA 95125 Order No. 205-AJ986
Name and Address

3. Owner Washington Public Power Supply System, Richland, Washington 99352
Name and Address

4. Location of Plant Hanford Reservation, Richland, Washington 99352

5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0048 Drawing No. DS-A-63790 Rev. C

Type Safety Relief — Safety, Safety Relief, Pilot, Power Actuated — Orifice Size R Inch — Pipe Size — Inch — Inlet 6 Inch — Outlet 10 Inch

6. Set Pressure (psig) 1175 — 575° F Rated Temperature

Stamped Capacity 884,314 @ 3 % Overpressure — Blowdown (psig) 2% to 11%

Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve) 1100 psig (Body Only)
(Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. ~~Castings~~ Bar Stock & Forgings		
Body	N93183-35-0067	ASTM A105-71 Gr. II ASME SA105 Gr. II
Bonnet	N93407-35-0030	ASTM A105-71 Gr. II ASME SA105 Gr. II
b. ~~Bar Stock & Forgings~~		
~~Components~~ Disc Insert	N93185-34-0079	ASME SA637 Gr. 718
Nozzle	N93184-33-0052	ASME SA182 Gr. F316
Disc Holder *K55484-35-0081	*N89714-34-0126	AMS 5662B
Spring Washers K62858-35-0030	K62856-35-0086 K62857-35-0051	ASTM A105-71Gr. II 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	*N89722-0004	ASTM A304-66 Gr. 4161H
d. Bolting		
e. ~~Components~~ Spindle Ball K62873-35-0048	N93213-0048	Stellite #6
Thrust Bearing Adapter	N93409-32-0050	ASME SA193 Gr. B6
Bonnet Stud (I17)	N93207-0573 thru 0584	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Bonnet Stud Nut (J87)	N93210-0793 thru 0804	ASME SA194 Gr. 2H
Inlet Stud (BW6)	N93216-0575 thru 0586	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Inlet Stud Nut (BW8)	N93218-0579 thru 0590	ASTM A194-71 Gr. 2H ASME SA194 Gr. 2H

ZX0038OT13

Adjusting Bolt Button N934[illegible]

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.

N-3790-00-0048

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 (Date), Code Case No. 1567 & 1711.
Class 1

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

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

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

Design specifications certified by[1] Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by[1] W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

[1]Signature not required - list name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of 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 80 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 11/24 19 80.

Signed (Inspector) Commissions MA55126 (Nat'l. Bd., State, Prov. and No.)

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

PLAN No 2-1701

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

Date: 07/19/00
Sheet: 1 of 1
Unit: Not Applicable

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	Crosby	N63790-03-0053	N/A	N/A	1980	----------	Yes, Code Class 1
Disc Insert	Crosby	N93185-56-0249	N/A	N/A	N/A	Replaced	No, Code Class 1
Disc Insert	Crosby	N97499-32-0020	N/A	N/A	N/A	Replacement	No, Code Class 1
Nozzle	Crosby	N93184-56-0174	N/A	N/A	N/A	Replaced	No, Code Class 1
Nozzle	Crosby	N97498-50-0145	N/A	N/A	N/A	Replacement	No, Code Class 1

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

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [X] **Nominal Operating Pressure** [ ] **Other** [ ] **None**

Test Pressure: 10 Psig **Test Temperature:** 89° F

Component Design Pressure: 1185 Psig **Temperature:** 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Main Steam Relief Valve (MSRV), Serial No N63790-03-0053 (Pre Mod Serial No N63790-00-0053), 2) See attached NV-1 Code Data Report for Main Steam Relief Valve (MSRV), Serial No N63790-00-0053 (Post Mod Serial No N63790-03-0053), 3) Component design pressure of 1185 Psig 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 - Program Lead Engineer (PLE) ***Signed By*** Kuldip Singh - Program Lead Engineer (PLE)

Date 8/1/00 ***Date*** 8/1/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 6-5-00 ***to*** 8-24-00 ***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.

Inspector's Signature ***Commissions*** 7486 w/7486 I IS

National Board, State, and Endorsements

Date 8-24-00

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

PLAN No. 2-1701

1. Work performed by: **NWS Technologies, LLC** Purchase Order # C31331 WRO # 008
   131 Venture Boulevard, Spartanburg, SC 29301
   Pradip Gupta 7/20/00
2. Work performed for: Energy Northwest - Columbia Generating Station
3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia Generating Station, North Power Plant Loop, Richland, WA 99352-0968
5. a: Repaired pressure relief device: Main Steam Safety Relief Valve
   b: Name of manufacturer: Crosby Valve & Gage Co.
   c: Identifying nos. old s/n: N63790-00-0053

HB-65-BP-FN	new s/n: **N63790-03-0053**	N/A	steam	6 x 10	1980
(type)	(mfr's S/N)	(NB#)	(service)	(size)	(yr.built)

   d: Construction Code:

ASME Sec. III Div. 1	1971	N/A	1567 & 1711	1
(name/section/division)	(edition)	(addenda)	(Code Cases(s))	(Code Class)

6. ASME Code Section XI applicable for inservice inspection:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

7. ASME Code Section XI used for repairs, replacements:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

8. Construction Code used for repairs, replacements:

1971	N/A	N/A
(edition)	(addenda)	(Code Case(s))

9. Design responsibilities: N/A
10. Opening pressure: 1185 psig
    Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATE OF INSPECTION

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

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

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: **N63790-03-0053**

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

11. Description of work:

The valve was disassembled. The nozzle was removed and returned to site with the disc.
WNP-2 machined the nozzle to the new flexi-disc dimensions.
NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.
Disc S/N: **N97499-32-0020** and Nozzle S/N: **N97498-50-0145**
(pre mod s/n N93184-50-0145)
were installed in the valve.
Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2):	MC 54407794
Eductor Gasket:	MC 56230461
Inlet Studs (5):	H/C: 4 studs - N B7 KMY, 1 stud - N B7 HBW

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

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

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

~~MS-RV-3B~~

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS PLAN No. 2-1701

7/20/[illegible] Q.C.-44D

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

FOR INFORMATION ONLY

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093
Name and Address

Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A

2. Manufactured For General Electric Company, 175 Curtner Ave., San Jose, CA 95125 Order No. 205-AJ986
Name and Address

3. Owner Washington Public Supply System, Richland, Washington 99352
Name and Address

4. Location of Plant Hanford Reservation, Richland, Washington 99352

5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0053 Drawing No. DS-A-63790 Rev.

Type Safety Relief (Safety, Safety Relief, Pilot, Power Actuated) Orifice Size R Inch Pipe Size -- Inch Inlet 6 Inch Outlet 10 Inch

6. Set Pressure (psig) 1185 575° F Rated Temperature

Stamped Capacity 891,750 @ 3 % Overpressure -- Blowdown (psig) 2% to 11%

Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve) 1100 psig (Body Only)
(Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. ~~Castings~~ Bar Stock & Forgings		
Body	N93183-35-0072	ASTM A105-71 Gr. II ASME SA105 Gr. II
Bonnet	N93407-35-0035	ASTM A105-71 Gr. II ASME SA105 Gr. II
b. ~~Bar Stock & Forgings~~		
~~Spring Rod~~ Disc Insert	N93185-34-0085	ASME SA637 Gr. 718
Nozzle	N93184-33-0057	ASME SA182 Gr. F316
Disc Holder *K55484-35-0082	*N89714-34-0089	AMS 5662B
Spring Washers K62858-35-0035	K62856-35-0091 K62857-35-0056	ASTM A105-71 Gr. II ASME SA105 Gr. II
Adjusting Bolt	N93410-33-0060	ASME SA193 Gr. B6
Spindle Point K62873-35-0053	*N89720-34-0085	ASTM A564-71 Type 630 ASME SA564 Type 630
c. Spring K62858-35-0035	*N89722-0011	ASTM A304-66 Gr. 4161H
d. Bolting		~~ZX00380127~~
e. ~~Other Parts~~ Spindle Ball K62873-35-0053	N93213-0053	Stellite #6
Thrust Bearing Adapter	N93409-32-0055	ASME SA193 Gr. B6
Bonnet Stud (I17, BW5)	N93207-0633 thru 0644	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Bonnet Stud Nut (J87)	N93210-0853 thru 0864	ASME SA194 Gr. 2H
Inlet Stud (BW6)	N93216-0635 thru 0646	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Inlet Stud Nut (BW8)	N93218-0639 thru 0650	ASTM A194-71 Gr. 2H ASME SA194 Gr. 2H
Adjusting Bolt Button	N93411-33-0062	ASME SA193 Gr. B6

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.

N63790-00-0053

CERTIFICATE OF COMPLIANCE

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

Class 1

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

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

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

Design specifications certified by[1] Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by[1] W. D. Greenlaw

PE State Massachusetts Reg. No. 14784

[1]Signature not required - list name only.

FOR INFORMATION ONLY

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Systems* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 11/21, 1980 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 11/21 1980.

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

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

PLAN No 2-1702

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** 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**

Date: 07/19/00
Sheet: 1 of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare Valve	Crosby	N63790-03-0057	N/A	N/A	1980	----------	Yes, Code Class 1
Disc Insert	Crosby	N93185-54-0224	N/A	N/A	N/A	Replaced	No, Code Class 1
Disc Insert	Crosby	N97499-34-0031	N/A	N/A	N/A	Replacement	No, Code Class 1
Nozzle	Crosby	N93184-54-0168	N/A	N/A	N/A	Replaced	No, Code Class 1
Nozzle	Crosby	N97498-33-0074	N/A	N/A	N/A	Replacement	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 studs for the relief valve inlet joint. VT-3 visual examination results acceptable for eight (8) studs. 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 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.

PLAN No 2-1702

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [X] **Nominal Operating Pressure** [ ] **Other** [ ] **None**

Test Pressure: 10 Psig **Test Temperature:** 79° F

Component Design Pressure: 1195 Psig **Temperature:** 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Main Steam Relief Valve (MSRV), Serial No N63790-03-0057 (Pre Mod Serial No N63790-00-0057), 2) See attached NV-1 Code Data Report for Main Steam Relief Valve (MSRV), Serial No N63790-00-0057 (Post Mod Serial No N63790-03-0057), 3) Component design pressure of 1195 Psig 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 ***Signed By*** Kuldip Singh

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

Date 8/1/00 ***Date*** 8/1/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 6-5-00 ***to*** 8-24-00 ***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.

Inspector's Signature

Commissions 7486/7486 I IS

National Board, State, and Endorsements

Date 8-24-00

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

PCAN No. 2-1702

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 7/20/00
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: N63790-00-0057

HB-65-BP-FN	new s/n: **N63790-03-0057**	N/A	steam	6 x 10	1980
(type)	(mfr's S/N)	(NB#)	(service)	(size)	(yr.built)

   d: Construction Code:

ASME Sec. III Div. 1	1971	N/A	1567 & 1711	1
(name/section/division)	(edition)	(addenda)	(Code Cases(s))	(Code Class)

6. ASME Code Section XI applicable for inservice inspection:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

7. ASME Code Section XI used for repairs, replacements:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

8. Construction Code used for repairs, replacements:

1971	N/A	N/A
(edition)	(addenda)	(Code Case(s))

9. Design responsibilities: N/A
10. Opening pressure: 1195 psig
    Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATE OF INSPECTION

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

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

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: **N63790-03-0057**

The S/N for this valve was N63790-00-0057 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:

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

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

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

Disc S/N: **N97499-34-0031** and Nozzle S/N: **N97498-33-0074**
(pre mod s/n N93184-33-0074)

were installed in the valve.

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

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2):	MC 54407794
Eductor Gasket:	MC 56230461
Inlet Studs (4):	H/C: N B7 KMY

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

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

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

~~M R KV 4B~~
Ralph Surb
5/4/85

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

PLAN No. 2-170

Ralph Surb
Q.C.-44D
7/20/80

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

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093
Name and Address

Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A

2. Manufactured For General Electric Company, 175 Curtner Avenue., San Jose, CA 95125 Order No. 205-AJ986
Name and Address

3. Owner Washington Public Power Supply System, Richland, Washington 99352
Name and Address

4. Location of Plant Hanford Reservation, Richland, Washington 99352

5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0057 Drawing No. DS-A-63790 Re

Type Safety Relief Orifice Size R Pipe Size — Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Power Actuated — Inch — Inch — Inch

6. Set Pressure (psig) 1195 575° F
Rated Temperature

Stamped Capacity 899,185 @ 3 % Overpressure — Blowdown (psig) 2 % to [illegible]

Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve) 1100 psig (Body Only)
(Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings ~~Castings~~		
Body	N93183-35-0076	ASTM A105-71 Gr. II ASME SA105 Gr. II
Bonnet	N93407-35-0039	ASTM A105-71 Gr. II ASME SA105 Gr. II
b. ~~[illegible]~~		
~~Support Rods~~ Disc Insert	N93185-34-0089	ASME SA637 Gr. 718
Nozzle	N93184-33-0061	ASME SA182 Gr. F316
Disc Holder *K55484-35-0083	*N89714-34-0093	AMS 5662B
Spring Washers K62858-35-0039	K62856-35-0095 K62857-35-0060	ASTM A105-71 Gr. II ASME SA105 Gr. II
Adjusting Bolt	N93410-33-0064	ASME SA193 Gr. B6
Spindle Point K62873-35-0057	*N89720-34-0073	ASTM A564-71 Type 630 ASME SA564 Type 630
c. Spring K62858-35-0039	*N89722-0015	ASTM A304-66 Gr. 4161 H
d. Bolting		
e. ~~[illegible]~~ Spindle Ball K62873-35-0057	N93213-0057	Stellite #6
Thrust Bearing Adapter	N93409-32-0059	ASME SA193 Gr. B6
Bonnet Stud (BW5, I17)	N93207-0681 thru 0692	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Bonnet Stud Nut (J87)	N93210-0901 thru 0912	ASME SA194 Gr. 2H
Inlet Stud (BW6)	N93216-0683 thru 0694	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Inlet Stud Nut (BW8)	N93218-0687 thru 0698	ASTM A194-71 Gr. 2H ASME SA194 Gr. 2H
Adjusting Bolt Button	N93411-[illegible]	

ZX00380090

Valve originally built against Crosby Order No. [illegible], Assembly No. [illegible]. 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.

~~NS RV 4B~~ Quality Surve 5/ NK3790-00-001

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 (Date), Code Case No. 1567 & 1711.

Class 1

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

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

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

Design specifications certified by[1] Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by[1] W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

[1] Signature not required - list name only.

FOR INFORMATION ONLY

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Systems* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 12-9, 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 12-9 1980.

Signed [signature] (Inspector) Commissions MASS 1266 (Nat'l. Bd., State, Prov. and No.)

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

7X00380091

PLAN No 2-1703

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
Date: 07/19/00
Sheet: 1 of 1
Unit: Not Applicable

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

3. (a) Work Performed By: 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	Crosby	N63790-03-0061	N/A	N/A	1980	----------	Yes, Code Class 1
Disc Insert	Crosby	N93185-56-0238	N/A	N/A	N/A	Replaced	No, Code Class 1
Disc Insert	Crosby	N97499-32-0015	N/A	N/A	N/A	Replacement	No, Code Class 1
Nozzle	Crosby	N93184-50-0150	N/A	N/A	N/A	Replaced	No, Code Class 1
Nozzle	Crosby	N97498-33-0068	N/A	N/A	N/A	Replacement	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

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] **Pneumatic** [X] **Nominal Operating Pressure** [ ] **Other** [ ] **None**

Test Pressure: 10 Psig **Test Temperature:** 82° F

Component Design Pressure: 1205 Psig **Temperature:** 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Main Steam Relief Valve (MSRV), Serial No N63790-03-0061 (Pre Mod Serial No N63790-00-0061), 2) See attached NV-1 Code Data Report for Main Steam Relief Valve (MSRV), Serial No N63790-00-0061 (Post Mod Serial No N63790-03-0061), 3) Component design pressure of 1205 Psig 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 **Signed By** Kuldip Singh

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

Date 8/1/00 **Date** 8/1/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington *and employed by* Factory Mutual Insurance Company of Johnston, Rhode Island *have inspected the components described in this Owner's Report during the period* 6-5-00 *to* 8-24-00 *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 W / 7486 I D

Inspector's Signature National Board, State, and Endorsements

Date 8-24-00

FORM NVR-1 REPORT OF REPAIR ☒ REPLACEMENT ☒
OF NUCLEAR PRESSURE RELIEF DEVICES PLAN No. 2-1703

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: N63790-00-0061

HB-65-BP-FN	new s/n: **N63790-03-0061**	N/A	steam	6 x 10	1980
(type)	(mfr's S/N)	(NB#)	(service)	(size)	(yr.built)

   d: Construction Code:

ASME Sec. III Div. 1	1971	N/A	1567 & 1711	1
(name/section/division)	(edition)	(addenda)	(Code Cases(s))	(Code Class)

6. ASME Code Section XI applicable for inservice inspection:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

7. ASME Code Section XI used for repairs, replacements:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

8. Construction Code used for repairs, replacements:

1971	N/A	N/A
(edition)	(addenda)	(Code Case(s))

9. Design responsibilities: N/A
10. Opening pressure: 1205 psig
    Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATE OF INSPECTION

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

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

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: **N63790-03-0061**

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

11. Description of work:

The valve was disassembled. The nozzle was removed and returned to site with the disc.
WNP-2 machined the nozzle to the new flexi-disc dimensions.
NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.
Disc S/N: **N97499-32-0015** and Nozzle S/N: **N97498-33-0068**
(pre mod s/n N93184-33-0068)
were installed in the valve.
Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2):	MC 54407794
Eductor Gasket:	MC 56230461
Inlet Studs (1):	H/C: N B7 HBW

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

6/19/00 Date	**NWS Technologies, LLC** (repair organization)	(authorized representative)	Manager, QA (title)
6/19/00 Date	Carl R. Ennis Inspector's Signature	**NB # 8460, A, N, I TN# 2236** Commissions (NB (incl endorsements), jurisdiction.& no.)	

PLAN NO. 2-1703

Deleted [illegible]
7/20/00

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

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

Q.C.-44D

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093
Name and Address

Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A

2. Manufactured For General Electric Company, 175 Curtner Ave., San Jose, CA 95125 Order No. 205-AJ986
Name and Address

3. Owner Washington Public Power Supply System, Richland, Washington 99352
Name and Address

4. Location of Plant Hanford Reservation, Richland, Washington 99352

5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0061 Drawing No. DS-A-63790 Rev. C

Type Safety Relief (Safety, Safety Relief, Pilot, Power Actuated) Orifice Size R Inch Pipe Size -- Inch Inlet 6 Inch Outlet 10 Inch

6. Set Pressure (psig) 1205 575° F Rated Temperature

Stamped Capacity 906,621 @ 3 %Overpressure -- Blowdown (psig) 2% to 11%

Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve) 1100 psig (Body Only) (Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings		
Body	N93183-35-0080	ASTM A105-71 Gr. II ASME SA105 Gr. II
Bonnet	N93407-35-0043	ASTM A105-71 Gr. II ASME SA105 Gr. II
b.		
Disc Insert	N93185-34-0093	ASME SA637 Gr. 718
Nozzle	N93184-33-0065	ASME SA182 Gr. F316
Disc Holder *K55484-35-0087	*N89714-34-0117	AMS 5662E
Spring Washers K62858-35-0043	K62856-35-0099 K62857-35-0064	ASTM A105-71 Gr. II ASME SA105 Gr. II
Adjusting Bolt	N93410-33-0068	ASME SA193 Gr. B6
Spindle Point K62873-35-0061	*N89720-34-0072	ASTM A564-71 Type 630 ASME SA564 Type 630
c. Spring K62858-35-0043	*N89722-0019	ASTM A304-66 Gr. 4161H
d. Bolting		
e. Spindle Ball K62873-35-0061	N93213-0061	Stellite #6
Thrust Bearing Adapter	N93409-32-0063	ASME SA193 Gr. B6
Bonnet Stud (II7, BW5)	N93207-0729 thru 0740	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Bonnet Stud Nut (JB7)	N93210-0949 thru 0960	ASME SA194 Gr. 2H
Inlet Stud (BW6)	N93216-0731 thru 0742	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Inlet Stud Nut (BW8)	N93218-0735 thru 0746	ASTM A194-71 Gr. 2H ASME SA194 Gr. 2H
Adjusting Bolt Button K63618-33-0070	N93411-33-0070	ASME SA193 Gr. B6

MAB 1-28-81

2

FOR INFORMATION ONLY

7X00383132

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

CERTIFICATE OF COMPLIANCE

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

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

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

symbol expires September 30, 1983.
(Date)

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

Design specifications certified by[1] Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by[1] W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

[1]Signature not required - list name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts
and employed by Factory Mutual Systems* of Norwood, Massachusetts
have inspected the pump, or valve, described in this Data Report on 12-9, 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 12-9, 1980.

Signed John E. Moore Commissions MA&S 1266
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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

MAB 1-1981

FOR INFORMATION ONLY

3 4 5 6 7 8 9 10

PLAN No 2-1704

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest — **Date:** 07/19/00
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352 — **Sheet:** 1 of 1
2. **Plant:** Columbia Generating Station — **Unit:** Not Applicable
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** 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	Crosby	N63790-03-0124	N/A	N/A	1981	----------	Yes, Code Class 1
Disc Insert	Crosby	N93185-54-0223	N/A	N/A	N/A	Replaced	No, Code Class 1
Disc Insert	Crosby	N97499-32-0019	N/A	N/A	N/A	Replacement	No, Code Class 1
Nozzle	Crosby	N93184-41-0099	N/A	N/A	N/A	Replaced	No, Code Class 1
Nozzle	Crosby	N97498-45-0115	N/A	N/A	N/A	Replacement	No, Code Class 1

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

ENERGY NORTHWEST

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

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

Test Pressure: 10 Psig **Test Temperature:** 82° F

Component Design Pressure: 1185 Psig **Temperature:** 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Main Steam Relief Valve (MSRV), Serial No N63790-03-0124 (Pre Mod Serial No N63790-00-0124), 2) See attached NV-1 Code Data Report for Main Steam Relief Valve (MSRV), Serial No N63790-00-0124 (Post Mod Serial No N63790-03-0124), 3) Component design pressure of 1185 Psig 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 ***Signed By*** Kuldip Singh

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

Date 8/1/00 ***Date*** 8/1/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 6-5-00 ***to*** 8-24-00 ***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.

[signature] ***Commissions*** 7486 W/7486 I IS

Inspector's Signature National Board, State, and Endorsements

Date 8-24-00

FORM NVR-1 REPORT OF REPAIR ☒ 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 Dandip Gupta 7/20/00

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)	(addenda)	(Code Case(s))

8. Construction Code used for repairs, replacements:

1971	N/A	N/A
(edition)	(addenda)	(Code Case(s))

9. Design responsibilities: N/A

10. Opening pressure: 1185 psig
Set-pressure adjustment made at: NWS Technologies, LLC using steam

11. Description of work (include name and identifying number of replacement parts): See attachment 1.

12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

I, Cesar V. Sierra certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacemtn of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.
National Board Certificate of Authorization No. **632** to use the "VR" stamp expires April 3, 2003.
National Board Certificate of Authorization No. **81** to use the "NR" stamp expires April 9, 2003.

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

CERTIFICATE OF INSPECTION

I, **Carl R. Enos** holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of **Tennessee** and employed by **Hartford Steam Boiler Inspection & Insurance Co.** of Hartford, CT have inspected the repair, modification or replacement described in this report on 6/19/00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.
By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification or replacement described in this report. Futhermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: **N63790-03-0124**

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

11. Description of work:
The valve was disassembled. The nozzle was removed and returned to site with the disc.
WNP-2 machined the nozzle to the new flexi-disc dimensions.
NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.
Disc S/N: **N97499-32-0019** and Nozzle S/N: **N97498-45-0115**
(pre mod s/n N93184-45-0115)
were installed in the valve.
Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:
Disc Holder Spiral Pins (2): MC 54407794
Eductor Gasket: MC 56230461
Inlet Studs (3): H/C: N B7 KMY

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

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

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

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS PCAN No. 2-1704
Relief Supply
7/20/10

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

Q.C.-44D

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093
Name and Address

Model No. HB-65-BP-FN Order No. N94281 Contract Date 4/24/79 National Board No. N/A

2. Manufactured For General Electric Company, 175 Curtner Ave., San Jose, CA 95125 Order No. 205-AJ986
Name and Address

3. Owner Washington Public Power Supply System, Richland, Washington 99352
Name and Address

4. Location of Plant Hanford Reservation, Richland, Washington 99352

5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0124 Drawing No. DS-A-63790 Rev. C

Type Safety Relief (Safety, Safety Relief, Pilot, Power Actuated) Orifice Size R Inch Pipe Size — Inch Inlet 6 Inch Outlet 10 Inch

6. Set Pressure (psig) 1185 5750 °F (Rated Temperature)

Stamped Capacity 891,750 @ 3 %Overpressure — Blowdown (psig) 2% to 11%

Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve) 1100 psig (Body Only)
(Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

		Serial No. Identification	Material Specification Including Type or Grade
a.	Bar Stock & Forgings		
	Body	N93183-36-0087	ASTM A105-71 Gr. II ASME SA105 Gr. II
	Bonnet	N93407-36-0098	ASTM A105-71 Gr. II ASME SA105 Gr. II
b.	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 K62858-36-0081	K62856-36-0116 K62857-36-0130	ASME SA105 Gr. II
	Adjusting Bolt	N93410-33-0072	ASME SA193 Gr. B6
	Spindle Point K62873-37-0136	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.	Spindle Ball K62873-37-0136	N93213-0203	Stoody #6
	Thrust Bearing Adapter	N93409-32-0065	ASME SA193 Gr. B6
	Bonnet Stud (BW19)	N93207-1522 thru 1533	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
	Bonnet Stud Nut (J87)	N93210-1033 thru 1044	ASME SA194 Gr. 2H
	Inlet Stud (BW21)	N93216-1455 thru 1466	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
	Inlet Stud Nut (BW22)	N93218-1389 thru 1400	ASTM A194-71 Gr. 2H ASME SA194 Gr. 2H
	Adjusting Bolt Button	N93411-33-0094	ASME SA193 Gr. B6

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

N63790-00-0124

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

Design specifications certified by[1] Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by[1] W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

[1]Signature not required - list name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Systems* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 1/13, 19 81 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 1/13 19 81.

Signed [signature] (Inspector) Commissions MASS 1266 (Nat'l. Bd., State, Prov. and No.)

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

PLAN No 2-1705

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: 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

Date: 07/20/00
Sheet: 1 of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare Valve	Crosby	N63790-03-0136	N/A	N/A	1973	----------	Yes, Code Class 1
Disc Insert	Crosby	N93185-56-0242	N/A	N/A	N/A	Replaced	No, Code Class 1
Disc Insert	Crosby	N97499-32-0017	N/A	N/A	N/A	Replacement	No, Code Class 1
Nozzle	Crosby	N93184-51-0153	N/A	N/A	N/A	Replaced	No, Code Class 1
Nozzle	Crosby	N97498-44-0107	N/A	N/A	N/A	Replacement	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.

PLAN No 2-1705

ENERGY NORTHWEST

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

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

Test Pressure: 10 Psig **Test Temperature:** 82° F

Component Design Pressure: 1205 Psig **Temperature:** 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Main Steam Relief Valve (MSRV), Serial No N63790-03-0136 (Pre Mod Serial No N63790-00-0136), 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting modification (upgrade) of Serial No N56000-02-0043 to Serial No N63790-00-0136, 3) See attached NV-1 (Pre - Modification) Code Data Report for Main Steam Relief Valve (MSRV), Serial No N56000-02-0043, 4) Component design pressure of 1205 Psig 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 ***Signed By*** Kuldip Singh

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

Date 8/1/00 ***Date*** 8/1/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 6-5-00 ***to*** 8-24-00 ***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 7486W/7486 IJ

Inspector's Signature National Board, State, and Endorsements

Date 8-24-00

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

PLAN NO. 21705

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
   Quality Equip 8/1/00
3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia Generating Station, North Power Plant Loop, Richland, WA 99352-0968
5. a: Repaired pressure relief device: Main Steam Safety Relief Valve
   b: Name of manufacturer: Crosby Valve & Gage Co.
   c: Identifying nos. old s/n: N63790-00-0136

HB-65-BP-FN	new s/n: N63790-03-0136	N/A	steam	6 x 10	1973 ~~1974~~ 7/25/[illegible]
(type)	(mfr's S/N)	(NB#)	(service)	(size)	(yr.built)

   d: Construction Code:

ASME Sec. III Div. 1	1971	N/A	1567 & 1711	1
(name/section/division)	(edition)	(addenda)	(Code Cases(s))	(Code Class)

6. ASME Code Section XI applicable for inservice inspection:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

7. ASME Code Section XI used for repairs, replacements:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

8. Construction Code used for repairs, replacements:

1971	N/A	N/A
(edition)	(addenda)	(Code Case(s))

9. Design responsibilities: N/A
10. Opening pressure: 1205 psig
    Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

I, Cesar V. Sierra certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacemtn of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.
National Board Certificate of Authorization No. 632 to use the "VR" stamp expires April 3, 2003.
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2003.

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

CERTIFICATE OF INSPECTION

I, Carl R. Enos holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of Tennessee and employed by Hartford Steam Boiler Inspection & Insurance Co. of Hartford, CT have inspected the repair, modification or replacement described in this report on 6/19/00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.
By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification or replacement described in this report. Futhermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: **N63790-03-0136**

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

11. Description of work:
The valve was disassembled. The nozzle was removed and returned to site with the disc.
WNP-2 machined the nozzle to the new flexi-disc dimensions.
NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.
Disc S/N: **N97499-32-0017** and Nozzle S/N: **N97498-44-0107**
(pre mod s/n N93184-44-0107)
were installed in the valve.
Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:
Disc Holder Spiral Pins (2): MC 54407794
Eductor Gasket: MC 56230461
Inlet Studs (3): H/C: N B7 KMY

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

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

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

PLAN No. 2-1705

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MA

~~PLAN No. 2-1005~~

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

Rudolf Lupo 3/10/94 7/20/00

REPAIR AND REPLACEMENT TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address)
(Repair organization's P.O. No., Job No., etc.). NV4000020

2. Owner WASHINGTON PUBLIC POWER RICHLAND,WA 99352-0968
(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND ,WA

5. a. Identifying Nos. N63790-00-0136 — — ----- 1973
(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)
b. Identification of component repaired or replacement component —
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic (X) Pneumatic ( ) Design Pressure ( ) Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 19 71 Edition
Addenda NO Code Case —

9. Description of work N56000-02-0043 WAS MODIFIED TO N63790-00-0136
(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)
ASME SEC.XI,1980 EDITION WINTER 1980 ADDENDA.

10. Remarks: THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:

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

2/23/94

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

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

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 Laurence J. Lucia QA Eng Manager 24 Feb, 1994
(Authorized Rep. of Repair Organization) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Factory Mutual Systems

Date 2/25, 1994

Signed _____ Commissions MA1455
(Inspector) (Nat'l. Bd., State, Prov. and No.)

PLAN NO. 2-1705

Phillip Supp 3
7/20/00

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
N63790-00-0138	1185	N56000-01-0038	1175
N63790-00-0139	1165	N56000-01-0100	1130

~~PLAN No. 2-1005~~
Rudolph Swob
3/10/94

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS PLAN NO. 2-1705
Rudolph Swob
Q.C. 44A 7/20/00

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 Co., 43 Kendrick St., Wrentham, Mass. 02093
Name and Address

Model No. HB-65-BP-FN Order No. N-105286 Contract Date 6/28/71

2. Manufactured For General Electric Company San Jose, California Order No. 205-AD148
Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I, Baileytown, Indiana
Name and Address

4. Location of Plant Baileytown, Indiana

5. Valve Identification MPL #B-22-F013 Serial No. N56000-02-0043 Drawing No. H-56000 Rev. C

Type Safety Relief Orifice Size R Pipe Size -- Inlet 6 Outlet 10
Safety.Safety Relief.Pilot.Power Actuated inch inch inch inch

6. Set Pressure (PSIG) 1205 575° F
Rated Temperature

Stamped Capacity 906250 Lbs. Hr. @ 3 % Overpressure - Blowdown ~~XXXX~~ 5%
Sat. Steam

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class 1 Edition 1971 Addenda Date Summer 1972
~~XXXX~~

Pressure Containing or Pressure Retaining Components

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

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	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring	NX2689-0048	ASTM A-304-66 Gr. 4161H
d. Bolting		
e. [illegible]		
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-193-71 Gr. B7 ASME SA-193 Gr. B7
Bonnet Stud Nut	N89719-0511 thru 0522	ASTM A-194-71 Cl. 2H ASME SA-194 Cl. 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 10-31 19 73 Signed Crosby Valve & Gage Co. By [signature]
Manufacturer QA Manager

Certificate of Authorization No. 331 expires November 9, 1974

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Mass. and employed by Mutual Boiler & Machinery Insurance Co.*, Waltham, Mass. have inspected the equipment described in this Data Report on October 31 19 73 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

*Factory Mutual Group of Insurance Co.

Date October 31, 19 1973

[signature] Commissions N.B. 6065 Mass. 1090
(Inspector) National Board, State, Province and No.

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3-3-75

PLAN No 2-1706

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
Date: 08/01/00
Sheet: 1 of 1
Unit: Not Applicable

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

3. (a) Work Performed By: 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	Crosby	N63790-03-0137	N/A	N/A	1973	———	Yes, Code Class 1
Disc Insert	Crosby	N93185-56-0243	N/A	N/A	N/A	Replaced	No, Code Class 1
Disc Insert	Crosby	N97499-32-0013	N/A	N/A	N/A	Replacement	No, Code Class 1
Nozzle	Crosby	N93184-51-0157	N/A	N/A	N/A	Replaced	No, Code Class 1
Nozzle	Crosby	N97498-33-0070	N/A	N/A	N/A	Replacement	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.
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

ENERGY NORTHWEST

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

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

Test Pressure: 10 Psig **Test Temperature:** 85° F

Component Design Pressure: 1195 Psig **Temperature:** 575° F

9. Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Main Steam Relief Valve (MSRV), Serial No N63790-03-0137 (Pre Mod Serial No N63790-00-0137), 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting modification (upgrade) of Serial No N56000-02-0042 to Serial No N63790-00-0137, 3) See attached NV-1 (Pre - Modification) Code Data Report for Main Steam Relief Valve (MSRV), Serial No N56000-02-0042, 4) Component design pressure of 1195 Psig 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 ***Signed By*** Kuldip Singh

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

Date 8/1/00 ***Date*** 8/1/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 6-5-00 ***to*** 8/25/00 ***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.

Inspector's Signature ***Commissions*** 7486 w/7486 I IS

National Board, State, and Endorsements

Date 8-25-00

FORM NVR-1 REPORT OF REPAIR ☒ REPLACEMENT ☒ OF NUCLEAR PRESSURE RELIEF DEVICES PLAN No. 2-1706

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: N63790-00-0137

HB-65-BP-FN	new s/n: N63790-03-0137	N/A	steam	6 x 10	~~1984~~ 1973
(type)	(mfr's S/N)	(NB#)	(service)	(size)	(yr.built)

   d: Construction Code:

ASME Sec. III Div. 1	1971	N/A	1567 & 1711	1
(name/section/division)	(edition)	(addenda)	(Code Cases(s))	(Code Class)

6. ASME Code Section XI applicable for inservice inspection:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

7. ASME Code Section XI used for repairs, replacements:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

8. Construction Code used for repairs, replacements:

1971	N/A	N/A
(edition)	(addenda)	(Code Case(s))

9. Design responsibilities: N/A
10. Opening pressure: 1195 psig
    Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

I, Cesar V. Sierra certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, modification or replacemtn of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.
National Board Certificate of Authorization No. 632 to use the "VR" stamp expires April 3, 2003.
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2003.

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

CERTIFICATE OF INSPECTION

I, Carl R. Enos holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of Tennessee and employed by Hartford Steam Boiler Inspection & Insurance Co. of Hartford, CT have inspected the repair, modification or replacement described in this report on 6/19/00 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.
By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification or replacement described in this report. Futhermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: **N63790-03-0137**

The S/N for this valve was N63790-00-0137 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:
The valve was disassembled. The nozzle was removed and returned to site with the disc.
WNP-2 machined the nozzle to the new flexi-disc dimensions.
NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.
Disc S/N: **N97499-32-0013** and Nozzle S/N: **N97498-33-0070**
(pre mod s/n N93184-33-0070
were installed in the valve.
Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:
Disc Holder Spiral Pins (2): MC 54407794
Eductor Gasket: MC 56230461
Inlet Studs (2): H/C: N B7 HBW

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

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

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

PLAN NO. 2-1706

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MA

~~PLAN NO. 2-100 ...~~

Q.C.-292, ...
SHEET 1 O...

Rulding Supts
4/25/96
7/20/00

REPAIR AND REPLACEMENT TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANT

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham MA 02093
(Name and Address)
(Repair organization's P.O. No., Job No., etc.) NV4000020

2. Owner WASHINGTON PUBLIC POWER RICHLAND,WA 99352-0968
(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND ,WA

5. a. Identifying Nos. N63790-00-0137 (Mfr's Serial No.) — (Nat'l Bd. No.) — (Jurisdiction No.) ----- (Other) 1973 (Year Built)
b. Identification of component repaired or replacement component —
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic (X) Pneumatic ( ) Design Pressure ( ) Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 19-71 Edition
Addenda NO Code Case —

9. Description of work N56000-02-0042 WAS MODIFIED TO N63790-00-0137
(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	N93183-41-0124
BONNET	N89717	N93407-44-0055
SPINDLE ASSY	K55465	K62873-44-0058
SPR.WASHER	N89724	K62856-44-0203
SPR.WASHER	N89723	K62857-44-0203
SPRING ASSY	K55466	K62858-31-0001

PART	PART NO.	REPLACED WITH
NOZZLE	N89713	N93184-51-0157
DISC INSERT	N89715	N93185-54-0231
THRUST.BRG.ADAPT	N89725	N93409-33-0007
ADJ.BOLT	N89726	N93410-32-0006
ADJ.BOLT BUTT.	COMMERCIAL	N93411-34-0013
ADJ.BOLT ASSY	COMMERCIAL	K63618-32-0006

Certificate Holder's Serial No. N63790-00-0137

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

CERTIFICATE OF COMPLIANCE

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

Signed Lawrence [illegible], QA Eng Manager (Authorized Rep. of Repair Organization) (Title) 25 Feb 1994 (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Date 2/25 1994

Factory Mutual Systems

Signed [illegible] (Inspector)

Commissions [illegible] (Nat'l. Bd., State, Prov. and No.)

PLAN No. 2-1706
Rudolph Gupta
7/20/00

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
N63790-00-0138	1185	N56000-01-0038	1175
N63790-00-0139	1165	N56000-01-0100	1130

PLAN NO. 2-1706
~~PLAN NO. 2-1006~~

CROSBY

CROSBY VALVE & GAGE COMPAN[illegible]
WRENTHAM, MASS

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

Q.C.-44A

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
Name and Address

Model No. HB-65-BP-FN Order No. N-105286 Contract Date 6/28/71

2. Manufactured For General Electric Company San Jose, California Order No. 205-AD148
Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I, Baileytown, Indiana
Name and Address

4. Location of Plant Baileytown, Indiana

5. Valve Identification MPL #B-22-F013 Serial No. N56000-02-0042 Drawing No. H-56000 Rev. C

Type Safety Relief (Safety, Safety Relief, Pilot, Power Actuated) Orifice Size R Inch Pipe Size – Inch Inlet 6 Inch Outlet 1[illegible] Inc

6. Set Pressure (PSIG) 1195 Rated Temperature 575°

Stamped Capacity 898800 Lbs. Hr. Sat. Steam 3 % Overpressure — Blowdown ~~XXXXX~~ 5%

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class 1 ~~XXXX~~ Edition 1971 Addenda Date Summer 1972

Pressure Containing or Pressure Retaining Components

	Serial No. Identification	Material Specification Including Type or Grade
a. ~~XXXXXXX~~ Forgings		
Body	N89711-32-0024	ASTM A-105-71 Gr. II ASME SA-105 Gr. II
Bonnet ~~XXXXX~~	N89717-32-0018	ASTM A-105-71 Gr. II ASME SA-105 Gr. II
b. Bar Stock and Forgings		
~~XXXXXXXX~~ Disc Insert	N89715-31-0034	ASTM A-461-65 Type 630
Nozzle	N89713-32-0031	ASTM A-182-71 F316 ASME SA-182 F316
Disc Holder	N89714-32-0042	AMS 5662 B
Spring Washers Top	N89724-32-0042	ASTM A-105-71 Gr. II
Spring Washers Bottom	N89723-32-0003	ASME SA-105 Gr. II
Adjusting ~~XXXX~~ Bolt	N89726-32-0012	ASTM A-193-71 Gr. B6 ASME SA-193 Gr. B6
Spindle Point	N89720-32-0034	ASTM A-564-72 Type 630

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	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring	NX2689-0047	ASTM A-304-66 Gr. 4161H
d. Bolting		
e. [illegible]		
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-193-71 Gr. B7 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. By [signature]
Manufacturer QA Manager

Certificate of Authorization No. 331 expires November 9, 1974

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Mass. and employed by Mutual Boiler & Machinery Insurance Co.*, Waltham, Mass. have inspected the equipment described in this Data Report on October 31 1973 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

*Factory Mutual Group of Insurance Co.

Date October 31 19 73

[signature] (Inspector) Commissions N.B. 6665 Mass. 1676
National Board, State, Province and No.

BWRPD DOC EHB

3-3-75

PLAN No 2-1707

ENERGY NORTHWEST

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

1. Owner: Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. Plant: Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. (a) Work Performed By: 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

Date: 07/20/00
Sheet: 1 of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare Valve	Crosby	N63790-03-0140	N/A	N/A	1994	----------	Yes, Code Class 1
Disc Insert	Crosby	N93185-52-0204	N/A	N/A	N/A	Replaced	No, Code Class 1
Disc Insert	Crosby	N97499-32-0016	N/A	N/A	N/A	Replacement	No, Code Class 1
Nozzle	Crosby	N93184-53-0167	N/A	N/A	N/A	Replaced	No, Code Class 1
Nozzle	Crosby	N97498-33-0072	N/A	N/A	N/A	Replacement	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.

PLAN No 2-1707

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic [ ] Pneumatic [X] Nominal Operating Pressure [ ] Other [ ] None

Test Pressure: 10 Psig **Test Temperature:** 87° F

Component Design Pressure: 1165 Psig **Temperature:** 575° F

9 Remarks: 1) See attached NVR-1 Code Data Report "Report Of Repair And Replacement Of Nuclear Pressure Relief Devices" for Main Steam Relief Valve (MSRV), Serial No N63790-03-0140 (Pre Mod Serial No N63790-01-0140), 2) See attached NV-1 Code Data Report for Main Steam Relief Valve (MSRV), Serial No N63790-01-0140 (Post Mod Serial No N63790-03-0140), 3) Component design pressure of 1165 Psig 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 - Program Lead Engineer (PLE) **Signed By** Kuldip Singh - Program Lead Engineer (PLE)

Date 8/1/00 **Date** 8/1/00

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington *and employed by* Factory Mutual Insurance Company of Johnston, Rhode Island *have inspected the components described in this Owner's Report during the period* 6-5-00 *to* 8-25-00 *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.

Inspector's Signature **Commissions** 7486 W / 7486 I EJ
National Board, State, and Endorsements

Date 8-25-00

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

PLAN No. 2-1707

1. Work performed by: **NWS Technologies, LLC** Purchase Order # C31331 WRO # 008
   131 Venture Boulevard, Spartanburg, SC 29301
2. Work performed for: Energy Northwest - Columbia Generating Station
3/4. Owner - name, address and identification of nuclear power plant: Energy Northwest - Columbia Generating Station, North Power Plant Loop, Richland, WA 99352-0968
5. a: Repaired pressure relief device: Main Steam Safety Relief Valve
   b: Name of manufacturer: Crosby Valve & Gage Co.
   c: Identifying nos. old s/n: N63790-01-0140
   new s/n: N63790-03-0140

HB-BP-65-DF	N/A	steam	6 x 10	1994
(type)	(NB#)	(service)	(size)	(yr.built)

   d: Construction Code: ASME Sec. III Div. 1 (name/section/division) | 1971 (edition) | N/A (addenda) | 1567 & 1711 (Code Cases(s)) | 1 (Code Class)
6. ASME Code Section XI applicable for inservice inspection: 1989 (edition) | N/A (addenda) | N/A (Code Case(s))
7. ASME Code Section XI used for repairs, replacements: 1989 (edition) | N/A (addenda) | N/A (Code Case(s))
8. Construction Code used for repairs, replacements: 1971 (edition) | N/A (addenda) | N/A (Code Case(s))
9. Design responsibilities: N/A
10. Opening pressure: 1165 psig
    Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATE OF INSPECTION

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

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

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: **N63790-03-0140**

01 @ 7/25/00 QRE

The S/N for this valve was N63790-~~00~~-0140 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:

The valve was disassembled. The nozzle was removed and returned to site with the disc.
WNP-2 machined the nozzle to the new flexi-disc dimensions.
NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.
Disc S/N: **N97499-32-0016** and Nozzle S/N: **N97498-33-0072**
(pre mod s/n N93184-33-0072)
were installed in the valve.
Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2):	MC 54407794
Eductor Gasket:	MC 56230461
Inlet Studs (3):	H/C: N B7 GQH

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

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

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

PLAN No. 2-4707

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MA

Q.C.-44C-1

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

1. Manufactured by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address of N Certificate Holder)
Model No. HB-65-BP Order No. NV4000468 Contract Date 24 JAN 1994 National Board No. —

2. Manufactured for WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND,W Order No. 238136 C/N 02
(Name and Address)

3. Owner WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WA
(Name and Address)

4. Location of Plant HANFORD # 2

5. Valve Identification B22-F013 Serial No. N63790-01-0140 Drawing No. DS-A-63790-1 REV 0
Type MAIN STEAM Orifice Size 4.532 Pipe Size — Inlet 6 Outlet 10
(Safety, Safety Relief, Pilot, Power Actuated) (Inch) (Inch) (Inch) (Inch)

6. Set Pressure 1165.0 585 F
Rated Temperature
Stamped Capacity 876878 LB./HR.SAT.STM.@ 3 % Overpressure — Blowdown (psig) 2 THRU 11
Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 1100

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

Class 1 Edition 1971, Addenda Date NO, Case No. —

		Serial No. Identification	Material Specification Including Type or Grade
a.	Castings		
	Body	N93183-47-0130	ASTM A105 GR.II
	Bonnet	N93407-47-0058	ASTM A105 GR.II
b.	Bar Stock & Forgings		
	Support Rods	—	—
	Nozzle	N93184-53-0167	ASME SA182 GR.F316
	Disc	N93185-52-0204	ASME SA637 GR.718
		N93186-41-0060	
	Spring Washers	N93187-40-0007	ASTM A105 GR.II
	Adjusting Bolt	N93410-33-0007	ASME SA193 GR.B6
	Spindle	N96461-34-0015	ASTM A564 TYPE 630
c.	Spring	NX2689-0138	ASTM A304 GR.4161 H
d.	Bolting	—	—
e.	Other Pieces		
	DISC HOLDER	N89714-42-0279	AMS5662B(INCONEL718)
	SPINDLE BALL	N96460	ASTM A276 T440C
	ADJ BOLT BUTTON	N93411-36-0015	ASME SA193 GR.B6
	THRUST BEARING ADAPTER	N93409-35-0012	ASTM A193 GR.B6
	BONNET STUD	N93207	ASTM A193 GR.B7
	BONNET NUT	N93210	ASME SA194 CL.2H
	INLET STUD	N93216	ASTM A193 Gr B7
	INLET NUT	N93218	ASTM A194 CL. 2H

Q.C.-44C-1

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

Date 27 May 94 Signed Crosby Valve & Gage Company by Laurence L Lewis
Manufacturer

Certificate of Authorization No. 1878 expires 30 SEP 95.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Arkwright -Boston Manufacturers Mutual Insurance Company have inspected the equipment described in this Data Report on May 27, 19 94 and state that to the best of my knowledge and belief, the Manufacturer has constructed thisequipment in accordance with the applicable Subsections of ASME Section III

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

Factory Mutual System

Date 5/27, 1994.

Signed [signature] Commissions MA 1455
(Inspector) (Nat'l. Bd., State, Prov. and No.)

PLAN No 2-1708

ENERGY NORTHWEST

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

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

1. **Owner:** Energy Northwest
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
2. **Plant:** Columbia Generating Station
   Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
   (b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
   (c) Type Code Symbol Stamp: Not Applicable
   (d) Certificate Of Authorization No.: Not Applicable
   (e) Expiration Date: Not Applicable
4. **Identification Of System:** Main Steam (MS) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 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	WPPSS *	B22-G001B-P1	N/A	N/A	1983	----------	Yes, Code Class 1
MS-RV-4B	Crosby	N63790-00-0058	N/A	N/A	1980	Replaced	Yes, Code Class 1
MS-RV-4B	Crosby	N63790-03-0137 ** (N63790-00-0137) **	N/A	N/A	1973	Replacement	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

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic ☐ **Pneumatic** ☐ **Nominal Operating Pressure** ☐ **Other** [*]

Test Pressure: 1022 Psig
Component Design Pressure: 1250 Psig
Test Temperature: 215° F
Temperature: 575° F

9. 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 N63790-00-0137, 3) See attached NV-1 (Pre - Modification) Code Data Report for relief valve Serial No N56000-02-0042, 4) * The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement ***conforms to the rules of the ASME Code, Section XI.***
Type Code Symbol Stamp: Not Applicable
Certificate Of Authorization No.: Not Applicable
Expiration Date: Not Applicable

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

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

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington ***and employed by*** Factory Mutual Insurance Company of Johnston, Rhode Island ***have inspected the components described in this Owner's Report during the period*** 1-24-01 ***to*** 7-24-01 ***and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.***
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this Inspection.

J. M. [illegible] ***Commissions*** 7486w/7486 NIS EI
Inspector's Signature National Board, State, and Endorsements

Date 7-24-01

FORM NVR-1 REPORT OF REPAIR ☒ REPLACEMENT ☒ OF NUCLEAR PRESSURE RELIEF DEVICES PLAN No. 2-1708

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 7/10/01
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: N63790-00-0137

HB-65-BP-FN	new s/n: N63790-03-0137	N/A	steam	6 x 10	1973 ~~1981~~ 3/23/01 CR
(type)	(mfr's S/N)	(NB#)	(service)	(size)	(yr.built)

   d: Construction Code:

ASME Sec. III Div. 1	1971	N/A	1567 & 1711	1
(name/section/division)	(edition)	(addenda)	(Code Cases(s))	(Code Class)

6. ASME Code Section XI applicable for inservice inspection:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

7. ASME Code Section XI used for repairs, replacements:

1989	N/A	N/A
(edition)	(addenda)	(Code Case(s))

8. Construction Code used for repairs, replacements:

1971	N/A	N/A
(edition)	(addenda)	(Code Case(s))

9. Design responsibilities: N/A
10. Opening pressure: 1195 psig
    Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATE OF INSPECTION

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

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

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: **N63790-03-0137**

The S/N for this valve was N63790-00-0137 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:
The valve was disassembled. The nozzle was removed and returned to site with the disc.
WNP-2 machined the nozzle to the new flexi-disc dimensions.
NWS machined the Disc Ring per Crosby Instruction Manual CVI No. 02-932-00.
Disc S/N: **N97499-32-0013** and Nozzle S/N: **N97498-33-0070**
(pre mod s/n N93184-33-0070)
were installed in the valve.
Both disc and nozzle were polished by NWS prior to installation.

Other parts replaced during the repair include:
Disc Holder Spiral Pins (2): MC 54407794
Eductor Gasket: MC 56230461
Inlet Studs (2): H/C: N B7 HBW

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

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

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

PLAN NO. 2-1708

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MA

~~PLAN NO. 2-1006~~

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

4/25/94
7/10/01

REPAIR AND REPLACEMENT TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham MA 02093
(Name and Address)
(Repair organization's P.O. No., Job No., etc.) NV4000020

2. Owner WASHINGTON PUBLIC POWER RICHLAND,WA 99352-0968
(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND ,WA

5. a. Identifying Nos. N63790-00-0137 (Mfr's Serial No.) — (Nat'l Bd. No.) — (Jurisdiction No.) ----- (Other) 1973 (Year Built)
b. Identification of component repaired or replacement component —
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic (X) Pneumatic ( ) Design Pressure ( ) Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 19 71 Edition
Addenda NO Code Case —

9. Description of work N56000-02-0042 WAS MODIFIED TO N63790-00-0137
(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	N93183-41-0124
BONNET	N89717	N93407-44-0055
SPINDLE ASSY	K55465	K62873-44-0058
SPR.WASHER	N89724	K62856-44-0203
SPR.WASHER	N89723	K62857-44-0203
SPRING ASSY	K55466	K62858-31-0001
PART	**PART NO.**	**REPLACED WITH**
NOZZLE	N89713	N93184-51-0157
DISC INSERT	N89715	N93185-54-0231
THRUST.BRG.ADAPT	N89725	N93409-33-0007
ADJ.BOLT	N89726	N93410-32-0006
ADJ.BOLT BUTT.	COMMERCIAL	N93411-34-0013
ADJ.BOLT ASSY	COMMERCIAL	K63618-32-0006

Certificate Holder's Serial No. M63790-00-0137

CERTIFICATE OF COMPLIANCE

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

Signed Lawrence J Lee, QA Eng Manager 25 Feb 1994
(Authorized Rep. of Repair Organization) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Factory Mutual Systems

Date 2/25 1994

Signed [signature] (Inspector) Commissions [illegible] (Nat'l. Bd., State, Prov. and No.)

PLAN No. 2-1708

~~PLAN No. 2-1006~~

Bailding Sups
4/24/?
7/19/01

CROSBY CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

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

Q.C.-44A

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
Name and Address

Model No. HB-65-BP-FN Order No. N-105286 Contract Date 6/28/71

2. Manufactured For General Electric Company San Jose, California Order No. 205-AD148
Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I, Baileytown, Indiana
Name and Address

4. Location of Plant Baileytown, Indiana

5. Valve Identification MPL #B-22-F013 Serial No. N56000-02-0042 Drawing No. H-56000 Rev. C

Type Safety Relief (Safety, Safety Relief, Pilot, Power Actuated) Orifice Size R Inch Pipe Size - Inch Inlet 6 Inch Outlet 10 Inch

6. Set Pressure (PSIG) 1195 575° F Rated Temperature

Stamped Capacity 898800 Lbs. Hr. Sat. Steam @ 3 % Overpressure -- Blowdown XXXX 5%

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class I XXXX Edition 1971 Addenda Date Summer 1972

Pressure Containing or Pressure Retaining Components

		Serial No. Identification	Material Specification Including Type or Grade
a. XXXX Forgings			
Body		N89711-32-0024	ASTM A-105-71 Gr. II ASME SA-105 Gr. II
BonnetXXXX		N89717-32-0018	ASTM A-105-71 Gr. II ASME SA-105 Gr. II
b. Bar Stock and Forgings			
XXXX Disc Insert		N89715-31-0034	ASTM A-461-65 Type 630
Nozzle		N89713-32-0031	ASTM A-182-71 F316 ASME SA-182 F316
Disc Holder		N89714-32-0042	AMS 5662 E
Spring Washers	Top	N89724-32-0042	ASTM A-105-71 Gr. II
	Bottom	N89723-32-0003	ASME SA-105 Gr. II
AdjustingXXXX Bolt		N89726-32-0012	ASTM A-193-71 Gr. B6 ASME SA-193 Gr. B6
Spindle Point		N89720-32-0034	ASTM A-564-72 Type 630

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	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring	NX2689-0047	ASTM A-304-66 Gr. 4161H
d. Bolting		
e. ~~Other Pressure Retaining Parts~~		
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-193-71 Gr. B7 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. By [signature]
Manufacturer QA Manager

Certificate of Authorization No. 331 expires November 9, 1974

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Mass. and employed by Mutual Boiler & Machinery Insurance Co.* Waltham, Mass. have inspected the equipment described in this Data Report on October 11, 1973 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

*Factory Mutual Group of Insurance Co.

Date October 11 19 73

[signature] Commissions N.B. 6665 Mass. 1076
(Inspector) (National Board, State, Province and No.)

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