

**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,



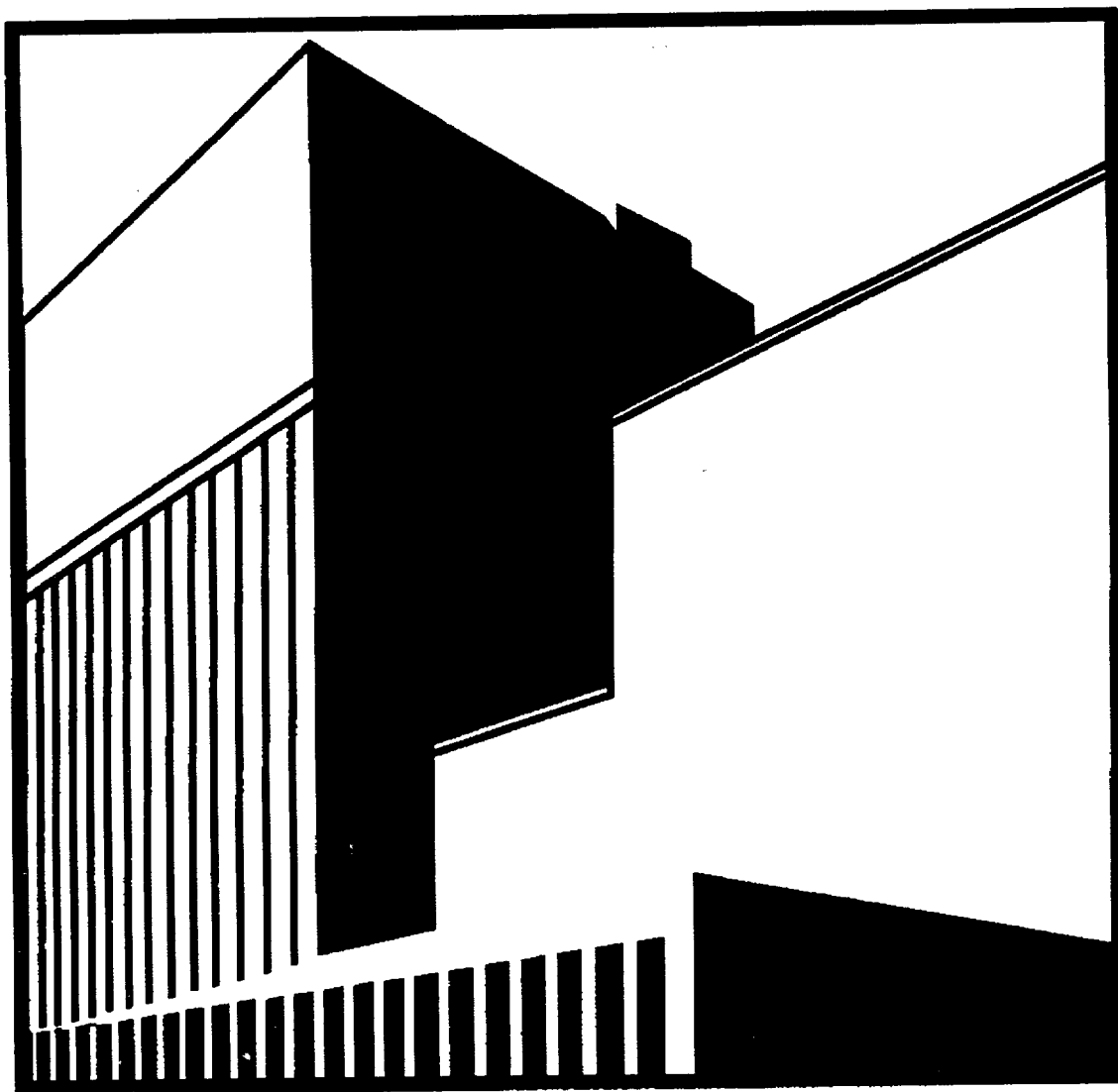
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Enclosure

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
State No.: 29936-84W

Serial Number: T-45
Nat'l Bd No.: 8

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

Paulip Luep 8/28/01
Program Lead Engineer Date

Reviewed & *[Signature]* 8/28/01
Concurred NDE Lead Date

By: *Tom Luep* 8/29/01
ISI Engineer's Supervisor Date

Concurrence *[Signature]* 8/29/01
Authorized Nuclear Inservice Inspector Date

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B.	NIS-2 Owner's Report for Repairs and Replacements

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

[illegible]

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 [Signature]
Owner

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State 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.

[Signature]
Inspector's Signature

Commissions 7486W/7486 NISBIS
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	TF	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.

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	Results(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	2FWF-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	2FWF-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	2FWF-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	2FWF-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	2RHF-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	2RFM-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	2RFM-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	2RFM-006	5/28/01	A

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

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

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

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 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
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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	REW-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	2RPF-004	5/26/01	A
STAB-BRACKET-45	STAB LUG @ 45	RPV-101		SUR	2RPF-003	5/26/01	A

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

13. Abstract of Examinations and Tests (continued):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Results(1)
STAB-BRACKET-90	STAB LUG @ 90	RFV-101		SUR	2RFP-003	5/27/01	A
STAB-BRACKET-135	STAB LUG @ 135	RFV-101		SUR	2RFP-001	5/26/01	A
STAB-BRACKET-180	STAB LUG @ 180	RFV-101		SUR	2RFP-005	5/26/01	A
STAB-BRACKET-225	STAB LUG @ 225	RFV-101		SUR	2RFP-004	5/26/01	A
STAB-BRACKET-270	STAB LUG @ 270	RFV-101		SUR	2RFP-004	5/26/01	A
STAB-BRACKET-315	STAB LUG @ 315	RFV-101		SUR	2RFP-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	2HFM-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

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)
RRC-RB-1(W)	1 WELDED LUG	RRC-103		SUR	2RRF-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

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)
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

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)
RHR-V-111C-BDY(L)	LK PRES TEST	RHR-103		VT-2	OSF-RPV-R801	6/19/01	A
RHR-V-113-BDY(L)	LK PRES TEST	RHR-104		VT-2	OSF-RPV-R801	6/19/01	A
RHR-V-9-BDY(L)	LK PRES TEST	RHR-104		VT-2	OSF-RPV-R801	6/19/01	A
RHR-V-8-BDY(L)	LK PRES TEST	RHR-104		VT-2	OSF-RPV-R801	6/19/01	A
RHR-V-53A-BDY(L)	LK PRES TEST	RHR-105		VT-2	OSF-RPV-R801	6/19/01	A
RHR-V-50A-BDY(L)	LK PRES TEST	RHR-105		VT-2	OSF-RPV-R801	6/19/01	A
RHR-V-112A-BDY(L)	LK PRES TEST	RHR-105		VT-2	OSF-RPV-R801	6/19/01	A
RHR-V-50B-BDY(L)	LK PRES TEST	RHR-106		VT-2	OSF-RPV-R801	6/19/01	A
RHR-V-112B-BDY(L)	LK PRES TEST	RHR-106		VT-2	OSF-RPV-R801	6/19/01	A
RRC-V-23A-BDY(L)	LK PRES TEST	RRC-101	01	VT-2	OSF-RPV-R801	6/19/01	A
RRC-V-60A-BDY(L)	LK PRES TEST	RRC-101	02	VT-2	OSF-RPV-R801	6/19/01	A
RRC-V-67A-BDY(L)	LK PRES TEST	RRC-101	02	VT-2	OSF-RPV-R801	6/19/01	A
RRC-V-23B-BDY(L)	LK PRES TEST	RRC-102	01	VT-2	OSF-RPV-R801	6/19/01	A
RRC-V-60B-BDY(L)	LK PRES TEST	RRC-102	02	VT-2	OSF-RPV-R801	6/19/01	A
RRC-V-67B-BDY(L)	LK PRES TEST	RRC-102	02	VT-2	OSF-RPV-R801	6/19/01	A
RWCU-V-102-BDY(L)	LK PRES TEST	RWCU-101	02	VT-2	OSF-RPV-R801	6/19/01	A
RWCU-V-1-BDY(L)	LK PRES TEST	RWCU-101	04	VT-2	OSF-RPV-R801	6/19/01	A
RWCU-V-4-BDY(L)	LK PRES TEST	RWCU-101	05	VT-2	OSF-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
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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	2HFM-009	5/1/01	A
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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.	Eg.	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	2HFM-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	PMF CAS/CIR WLD	HPCS-206	01	SUR	2HFM-008	11/14/00	A
HPCS-P-1C-5	PMF CAS/CIR WLD	HPCS-206	01	SUR	2HFM-008	11/14/00	A
HPCS-P-1C-6	PMF CAS/CIR WLD	HPCS-206	01	SUR	2HFM-008	11/14/00	A
HPCS-P-1N-3	PMF NOZZLE WELD	HPCS-206	01	SUR	2HFM-008	11/14/00	A

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

13. Abstract of Examinations and Tests (continued):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
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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	Rsults(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: Fl.10B							
RFW-159	SPRING	RFW-101	03	VT-3	2HV-0269	5/29/01	A
Item Number: Fl.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: Fl.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-3E	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: Fl.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	Rsults(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 REF 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-

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.

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

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.

ENERGY NORTHWEST

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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 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 _____ Commissions _____
 Inspector's Signature National Board, State, and Endorsements
 Date _____

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

Date: 09/13/00

Sheet: 1 of 1

Unit: Not Applicable

2. **Plant:** Columbia Generating Station

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

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

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

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

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

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

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

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

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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCIC-PCV-15 Valve Plug* Valve Plug	Fisher Controls Fisher Controls Fisher Controls	6056568 N/A* PB9380-1	2365 N/A N/A	N/A N/A N/A	1977 1977* 1996	----- Replaced Replacement	Yes, Code Class 2 No, Code Class 2* Yes, Code Class 2

7. **Description Of Work Performed:** Replaced existing valve plug for valve RCIC-PCV-15. The replacement work was performed as follows:

- 1) Removed existing valve plug from the valve.
- 2) Installed new replacement valve plug, Serial No PB9380-1 in the valve.
- 3) Installed eight (8) new replacement studs for the valve body to bonnet joint.
- 4) Installed eight (8) new replacement nuts for the valve body to bonnet joint.

NOTES -

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

ENERGY NORTHWEST

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

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

9. Remarks: See attached N-2 Code Data 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

Commissions

Inspector's Signature

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
Quench Suph
Pg. 1 of 1
9/13/00

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 Revision N/A Date N/A
(no.)
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 at temp. °F
(when applicable)

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

FORM N-2 (back)

Mfr. Serial No. N/A

CERTIFICATION OF DESIGN

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

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

CERTIFICATE OF SHOP COMPLIANCE

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

PLUG

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

Date 8-28-96 Name FISHER CONTROLS INT'L INC
(NPT Certificate Holder)

Signed Sam L. Quyn
(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 Kurt Coburn
(Authorized Inspector)

Commissions 822 IA.
(Nat'l. Bd. (incl. endorsements) state or prov. and no.)

SATISFACTORY ☒ UNSATISFACTORY ☐
Rechecked # 9/16/96
RECEIVED / LEVEL / DATE

ENERGY NORTHWEST

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

1. Owner: Energy Northwest

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

Date: 07/23/01

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: 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 valve HPCS-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.

ENERGY NORTHWEST

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

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

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/14/01

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

Commissions

Inspector's Signature

National Board, State, and Endorsements

Date _____

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

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.

ENERGY NORTHWEST

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

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

Test Pressure: Psig

Test Temperature: ° F

Component Design Pressure: Psig

Temperature: ° F

9. **Remarks:** See attached NPV-1 Code Data 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

Commissions

Inspector's Signature

National Board, State, and Endorsements

Date

1. Manufactured by Nuclear Valve Div., Borg Warner, 7500 Tyrone Ave., Van Nuys, Calif.
(Name and Address of N Certificate Holder) 3000 George Washington Way
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. (b) N Certificate Holder's (c) Canadian
 Series No. Serial Registration (d) Drawing (f) Nat'l (g) Year
 or Type No. No. No. No. Class Bd. No. Built

(1) 1500# 80107 thru 80128 N/A 76590-2 1 N/A 1983
 (2)
 (3)
 (4)
 (5) RCIC-V-627, SIN 80112
 (6)
 (7) Revised Supp
 (8) 3/8/01
 (9)
 (10)

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

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Dist-Code 5F55	Stellite #6	Rex Precision	
5F32			
(b) Forgings			
Body-Code 5E95	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 554 Tv630	Jorzensen 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 '73, Code Case No. N/A, Date 7/21/75
 Signed Nuclear Valve Div., Borg Warner by W. F. Smith
(N Certificate holder)
 Our ASME Certificate of Authorization No. H-1254 to use the H symbol expires 10/27/84.
(N) (Date)

CERTIFICATION OF DESIGN

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

Design specifications certified by (1) David J. Murphy
 PE State Washington Reg. No. 12542
 Stress analysis certified by (1) Byron E. Leonard
 PE State CA Reg. No. 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 9EO 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 12/1/83 19 83

177-172

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) 3000 George Washington Way
2. Manufactured for Washington Public Power Supply Systems, Richland, Washington
(Name and Address of Purchaser or Owner)
3. Location of Installation Richland, Washington WPPSS Hanford #2 Job Site
(Name and Address)
4. Pump or Valve Y Globe Valve Nominal Inlet Size 3/4 Outlet Size 3/4
(inch) (inch)

(a) Model No., (b) N Certificate Holder's (c) Canadian

Series No.
or TypeSerial
No.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)							
(7)							
(8)							
(9)							
(10)							

RCIC-V-628, SIN 79959

Buildup Step 5
3/8/01

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Disc-Code LX20	Stellite #6	Rex Precision	
1T01, 1W10, 5F32			
(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

[illegible]

-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.

ADDENDUM Winter '75, Code Case No. N/A Date 7/27/83

Signed Nuclear Valve Div., Borg Warner by [Signature]
(Of Certificate Holder)

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

CERTIFICATION OF DESIGN

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

Design specifications certified by (1) David J. Murphy
PE State Washington Reg. No. 12542
Stress analysis certified by (1) Byron H. Leonard
PE State CA Reg. No. E123

(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 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 1983
[Signature]
[Inspector]

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

BECHTEL
653

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

Date: 06/27/01

Sheet: 1 Of 1

Unit: Not Applicable

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

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

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

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

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

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

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: N-416-1

6. Identification Of Components Repaired Or Replaced And Replacement Components

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

7. **Description Of Work Performed:** Reoriented (rotated) existing valve MS-V-20, Serial No R-Z227-1-1. The work was performed as follows:

- 1) Cut existing circumferential butt welds and removed the existing valve.
- 2) Beveled cut pipe ends.
- 3) Reoriented (rotated) and reinstalled the existing valve.
- 4) Made required circumferential butt welds.
- 5) Surface finished the circumferential butt weld for ISI (PSI).
- 6) Performed visual examination on the final circumferential butt weld. Visual examination results acceptable.
- 7) Performed ultrasonic (UT) examination on the final circumferential butt weld for ISI (PSI). Ultrasonic (UT) examination results acceptable.
- 8) Performed radiographic (RT) examination on the final circumferential butt weld. Radiographic (RT) examination results acceptable.
- 9) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

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.

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None
 Test Pressure: 935 Psig Test Temperature: 530° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/27/01 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.

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

Date 7/24/01

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

Date: 07/23/99

Sheet: 1 Of 1

Unit: Not Applicable

2. **Plant:** Columbia Generating Station

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

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

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

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

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

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

4. **Identification Of System:** Reactor Building Closed Cooling (RCC) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCC(5)-2 RCC-V-610 RCC-V-610	WPPSS * Borg Warner Borg Warner	RCC(5)-2-P1 13460 56639	N/A N/A N/A	N/A N/A N/A	1983 1977 1980	----- Replaced Replacement	Yes, Code Class 3 Yes, Code Class 1 Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing valve RCC-V-610. The replacement work was performed as follows:

- 1) Removed existing valve RCC-V-610, Serial No 13460.
- 2) Installed replacement valve RCC-V-610, Serial No 56639.
- 3) Made required socket weld.
- 4) Performed visual examination on the final socket weld. Visual examination results acceptable.

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.

ENERGY NORTHWEST

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

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

9. **Remarks:** See attached NPV-1 Code Data Report for the replacement valve 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)

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

Date 1/24/01

Date 1/24/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ 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. 2-1597

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. 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)						
(7)						
(8)						
(9)						
(10)						

RCC-V-610, S/N 56639

Buildup Sup's
1/24/01

5. The valves are designed to handle a fluid media which includes steam, water condensate, hotated 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) 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.

WGG ER 15-16286

* 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

1980 BR 215-16286

CERTIFICATE OF COMPLIANCE

Addenda Summer '75, Code Case No. N/A, Date 3/28/80

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

Design information 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

Source analysis certified by (1) Liwei Chen

PE State CA. Reg. No. 18581

CERTIFICATE OF SHOP INSPECTION

of Long Grove, Illinois have inspected the pump, or valve, described in this Data Report on

2/7 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 47 1980
(Inspector) Commissions 1275 CA.
(Nat'l Bd., State, Prov. and No.)

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

2. **Plant:** Columbia Generating Station

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

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

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

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

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

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

4. **Identification Of System:** Control Air System (CAS)

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

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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CAS(5)-1 CAS-V-326A CAS-V-326A	WPPSS * Dragon Valves Dragon Valves	CAS(5)-1-P1 PB1244 PB1323	N/A N/A N/A	N/A N/A N/A	1984 1995 1999	----- Replaced Replacement	Yes, Code Class 3 Yes, Code Class 2 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.

ENERGY NORTHWEST

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

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

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve 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 _____

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 Code Case No. N/A Date November 10, 1999
 Signed Dragon Valves, Inc. by Mark A. Snyder
 (In Certificate Holder)
 Our ASME Certificate of Authorization No. N-1033 to use the N symbol expires 5/6/02
 (N) (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 11-10-99 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 11-10-99 Commissions QA 1524 NB 9435 N
David F. Rejes (Inspector) (Nat'l Bd., State, Prov. and No.)

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

2. **Plant:** Columbia Generating Station

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

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

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

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

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

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

4. **Identification Of System:** 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.

ENERGY NORTHWEST

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

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

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve 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 Signed By Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

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

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ and employed by _____

_____ have inspected the components described in this Owner's Report during the period _____ to _____ and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

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 Outlet Size 3/8
(inch) (inch)

(a) Model No., (b) N Certificate Holder's (c) Canadian
Series No. Serial Registration (d) Drawing (f) Nat'l. (g) Year
or Type No. No. No. No. Bd. No. 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) Repair Supp

(10) 6/11/01

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

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

[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 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

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.)



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

1. Owner: Energy Northwest

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

Date: 06/13/01

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Air System (CAS)

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CAS(5)-1	WPPSS *	CAS(5)-1-P1	N/A	N/A	1984	-----	Yes, Code Class 3
CAS-V-326C	Dragon Valves	PB1248	N/A	N/A	1995	Replaced	Yes, Code Class 2
CAS-V-326C	Dragon Valves	PB1322	N/A	N/A	1999	Replacement	Yes, Code Class 2

7. Description Of Work Performed: Replaced existing valve CAS-V-326C. The replacement work was performed as follows:

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

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.

ENERGY NORTHWEST

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

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

Test Pressure: Psig

Test Temperature: ° F

Component Design Pressure: Psig

Temperature: ° F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve 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 Signed By Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

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

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ and employed by _____

_____ have inspected the components described in this Owner's Report during the period _____ to _____ and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Commissions _____
National Board, State, and Endorsements

Date _____

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

(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
--	---	-------------------------------------	--------------------	-----------	-----------------------	-------------------

CAS-V-326C, S/N PB 1322

(Brief description of service for which equipment was designed)

7. Cold Working Pressure 2160 psi at 100°F.

(a) Castings N/A

(b) Forgings N/A

* 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			
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 1520 NB 9435 N
 (Nat'l Bd., State, Prov. and No.)



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

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

ENERGY NORTHWEST

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

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

Test Pressure: Psig

Test Temperature: ° F

Component Design Pressure: Psig

Temperature: ° F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve 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 Signed By Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

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

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ and employed by _____

_____ have inspected the components described in this Owner's Report during the period _____ to _____ and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date _____

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

(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(inch)	(e) Class	(f) Nat'l. Bd. No.	(inch)	(g) Year Built
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CAS-V-326D, S/N PB 1321

Audip Sup 5
6/12/01

(Brief description of service for which equipment was designed)

(Pressure)

(a) Castings N/A

(b) Forgings N/A

* 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			
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. by Mark A. Snyder
(N Certificate Holder)

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. Reay (Inspector) Commissions CA 1524 NB 9435 N
(Nat'l Bd., State, Prov. and No.)

ENERGY NORTHWEST

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

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

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

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 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 Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) 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] Commissions 7486 w/ 7488 NIS ET.
 Inspector's Signature National Board, State, and Endorsements

Date 7/24/01

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

- Manufactured by NPS INDUSTRIES, INC., 10420 METRIC BOULEVARD, AUSTIN, TX 78758
(Name and address of NPT Certificate Holder)
- Manufactured for WASHINGTON PUBLIC POWER SUPPLY SYSTEM, P.O. BOX 968, RICHLAND, WA 99352
(Name and address of purchaser or owner)
- Location of Installation WNP-2 OPS WHS COMPLEX, WHS#1 N. PWR. PLANT LOOP, RICHLAND, WA 99352

(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), SIN NA-2765-001-13			
(5)			RHR-326(W), SIN NA-2765-001-2			
(6)			*NA-2765-001-1			
(7)			THRU			
(8)			NA-2765-001-15			
(9)						
(10)						

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, Code Case no. N247.

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

Our ASME Certificate of Authorization No. N-2689 to use the NPT Symbol expires JULY 12, 1991
(NPT) (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 Gene Stowell 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 8 1/2 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

(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)						

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, Code Case no. N247.

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

Our ASME Certificate of Authorization No. N-2689 to use the NPT Symbol expires JULY 12, 1991
(NPT) (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 8 1/2 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.

ENERGY NORTHWEST

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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
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 ☒ 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 Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) 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.

A.M. Fort Commissions 74864/7486 NIS IS
 Inspector's Signature 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 Required by the Provisions of the ASME Code Rules, Section 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

(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)			RRR-453, SIN NA-2765-001-3			
(5)						
(6)	*NA-2765-001-1					
(7)	THRU					
(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.
Code Case no. N247 (Date)

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

Our ASME Certificate of Authorization No. N-2689 to use the NPT Symbol expires JULY 12, 1991
(NPT) (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
4/25 19 90 have inspected the parts for the component supports described in this Data Report on
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 8 1/2 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. 2-1648

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

(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			Dudip Sup's			
(9)			6/28/01			
(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, Code Case no. N247 (Date)

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

Our ASME Certificate of Authorization No. N-2689 to use the NPT Symbol expires JULY 12, 1991
(NPT) (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
4/25 19 90 have inspected the parts for the component supports described in this Data Report on
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 8 1/2 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.

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: 08/07/01

Sheet: 1 Of 1

Unit: Not Applicable

2. **Plant:** Columbia Generating Station

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

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

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

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

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

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

4. **Identification Of System:** Residual Heat Removal (RHR) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Summer 1972 Addenda, Code Case: None

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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR-HX-1A	Delta Southern	35009-74-1	3489	N/A	1974	-----	Yes, Code Class 2

7. **Description Of Work Performed:** Fabricated spare tube plugs for heat exchanger. The work was performed as follows

- 1) Cut bar material to machine spare the tube plugs - See Note 1.
- 2) Machined twelve (12) spare tube plugs to the required dimensions - See Note 1.
- 3) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

NOTES -

1) Residual Heat Removal heat exchanger RHR-HX-1A tubes were due for eddy current (EC) examination during R-15 outage. ASME Section XI Plan No 2-1656 was issued to machine tube plugs and also to plug tubes in case eddy current (EC) examination revealed unacceptable condition of the tube(s). In anticipation to plug the tubes twelve (12) tube plugs were machined. The eddy current (EC) examination revealed no unacceptable condition of the tube(s). The tube plugs machined in accordance with ASME Section XI Plan No 2-1656 are being stored in the warehouse inventory for future use.

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

ENERGY NORTHWEST

PLAN No 2-1656

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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ None ☐
Test Pressure: 150 Psig Test Temperature: 69° F
Component Design Pressure: 500 Psig 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 Signed By Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE) 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 _____ Commissions _____
Inspector's Signature National Board, State, and Endorsements

Date _____



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

1. Owner: Energy Northwest

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

Date: 04/16/01

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Room Chilled Water (CCH) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW(21)-2 CCH-RD-1A CCH-RD-1A	WPPSS * BS&B BS&B	SW(21)-2-P1 Lot No 87090001-1 Lot No 87090001-1	N/A N/A N/A	N/A N/A N/A	1983 1987 1987	Replaced Replacement	Yes, Code Class 3 No, Code Class 3 No, Code Class 3

7. Description Of Work Performed: Replaced rupture disc for CCH-RD-1A. The replacement work was performed as follows:

- 1) Removed existing rupture disc.
- 2) Performed VT-3 visual examination on the existing studs for the bolted joint. VT-3 visual examination results acceptable.
- 3) Performed VT-3 visual examination on the existing nuts for the bolted joint. VT-3 visual examination results acceptable.
- 4) Installed new rupture disc.
- 5) Reinstalled VT-3 visually examined existing studs for the bolted joint.
- 6) Reinstalled VT-3 visually examined existing nuts for the bolted joint.
- 7) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the bolted joint. No evidence of leakage during the pressure test.

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 Test Temperature: 54.5° F
 Component Design Pressure: 309 Psig 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)

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

Date 4/16/01

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.

[Signature]
 Inspector's Signature

Commissions 7486.12/7486 N.I.I.S.
 National Board, State, and Endorsements

Date 4-18-01



SAFETY SYSTEMS

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

PLAN NO. 2-1663

CCH-RD-1A

Chadip Swab
4/12/01

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

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: Jay B. Vance, 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

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

Date: 02/11/00

Sheet: 1 of 1

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

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

Unit: WNP-2

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

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. **Identification Of System:** Service Water (SW) System

5. **(a) Applicable Construction Code:** ASME Section III, Code Class 3, 1974 Edition with Winter 1976 Addenda, Code Case: None

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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW-V-170B	Allis Chalmers	73912-4	N/A	N/A	1978	Replaced	Yes, Code Class 3

7. **Description Of Work Performed:** Replaced the existing stud and a nut for the end cover plate for valve SW-V-170B. The replacement work was performed as follows:

- 1) Removed the existing stud and a nut for the valve end cover plate.
- 2) Installed new cap screw (bolt) for the end cover plate.

NOTES -

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

ENERGY NORTHWEST

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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 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.

[Signature]
Inspector's Signature

Commissions 74864 / 7486 N I IS
National Board, State, and Endorsements

Date 2/14/00

ENERGY NORTHWEST

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

1. Owner: Energy Northwest

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

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

5. (a) Applicable Construction Code: ASME Section III, Code Class 3, 1974 Edition with Winter 1975 Addenda, Code Case: None

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
PI(1)-ST-(IR-62)-2	JCI	PI(1)-ST-(IR-62)-2	N/A	N/A	1983	-----	Yes, Code Class 3
PI(1)-ST-(IR-62)-4	JCI	PI(1)-ST-(IR-62)-4	N/A	N/A	1983	-----	Yes, Code Class 3
PI(1)-ST-(IR-62)-5	JCI	PI(1)-ST-(IR-62)-5	N/A	N/A	1983	-----	Yes, Code Class 3

7. Description Of Work Performed: Replaced tubing material for valves RCIC-V-4, RCIC-V-25 and RCIC-V-54. The replacement work was performed as follows:

- 1) Installed replacement tubing and tube fittings such as unions and male connectors.
- 2) Made tubing to tube fitting mechanical joints.
- 3) Installed replacement support material such as block clamps and cap screws.
- 4) Installed replacement support material such as plate, channel and tube steel.
- 5) Made required welds.
- 6) Performed visual examination on the final welds. Visual examination results acceptable.

ENERGY NORTHWEST

PLAN No 2-1667

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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 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 _____ Commissions _____
Inspector's Signature National Board, State, and Endorsements

Date _____

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

Date: 04/10/00

Sheet: 1 of 1

Unit: WNP-2

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 Valve	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.

ENERGY NORTHWEST

PLAN No 2-1668

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

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

9. Remarks: See attached NPV-1 Code Data Report for the new 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)

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

Date 4/10/00

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

Commissions

Inspector's Signature

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)							
(6)							
(7)							
(8)							
(9)							
(10)							

SERIAL NO. PB1194

Handwritten signature
4/10/00

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

6. Design Conditions 3600 psi 100 °F or Valve Pressure Class 1500 (1)
(Pressure) (Temperature)
7. Cold Working Pressure 3600 psi at 100°F.
8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings 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.

(10/77)

This form (F00037) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

025636000885

[illegible]

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 S-75, Code Case No. N/A, Date August 23, 1993.

Signed DRAGON VALVES INC.
(In Certificate Holder)

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

CERTIFICATION OF DESIGN

Design information on file at Washington 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.

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 1993

(Inspector)

Commissions

CA 1716

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

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

2. **Plant:** Columbia Generating Station

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

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

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

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

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

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

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

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with 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

ENERGY NORTHWEST

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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 7/6/00 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.

H. M. [Signature] Commissions 7486W/7486 NISJS
 Inspector's Signature National Board, State, and Endorsements

Date 1/19/00

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

Date: 07/06/00

Sheet: 2 of 2

Unit: Not Applicable

2. **Plant:** Columbia Generating Station

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

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

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

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

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

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

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

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

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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare Nozzles For MSRV's	Crosby	See Item No 7 Below For Serial No's Of Spare Nozzles	N/A	N/A	N/A	Repair	No, Code Class 1 Spare Nozzles

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

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.

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: 06/27/01

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

Sheet: 1 Of 1

2. **Plant:** Columbia Generating Station

Unit: Not Applicable

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

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

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

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

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

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

4. **Identification Of System:** 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.

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None
 Test Pressure: 935 Psig Test Temperature: 530° F
 Component Design Pressure: 2160 Psig Temperature: 700° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/22/01 Date 6/22/01

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.

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

Date 7/24/01

ENERGY NORTHWEST

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

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

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

7. **Description Of Work Performed:** Replaced existing valve SLC-V-16. The replacement work was performed as follows:

- 1) Removed existing valve SLC-V-16, Serial No 14082.
- 2) Installed replacement valve SLC-V-16, Serial No 28839.
- 3) Made required socket welds.
- 4) Performed visual examination on the final socket welds. Visual examination results acceptable.
- 5) Performed liquid penetrant (PT) examination on the final socket welds. Liquid penetrant (PT) examination results acceptable.

NOTES -

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement valve SLC-V-16, Serial No 28839 was installed is Standby Liquid Control (SLC) piping system SLC(2)-3S-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The replacement valve SLC-V-16, Serial No 28839 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.
- 5) The liquid penetrant (PT) examination on the final socket welds was performed in accordance with the requirements of ASME Section III, Code Class 2, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 6) The VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints was performed in accordance with the requirements of ASME Section XI, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None
 Test Pressure: 1240 Psig Test Temperature: 82.6° F
 Component Design Pressure: 1400 Psig 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 Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) 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.

[Signature] Commissions 7486 W / 7486 N E I
 Inspector's Signature National Board, State, and Endorsements

Date 7/10/01

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

As Required by the Provisions of the ASME Code Rules

6/15/01

Nuclear Valve Division

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

(Name & Address of Manufacturer)

Bovee & Craill/G.E.R.I.

2. Manufactured for P.O. Box 1040, Richland, Washington 99352 Order No. 215-3261Q
(Name and Address)

(Name and Address)

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 28639 thru 28841

(Brief description of service for which equipment was designed)

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

(h) National Board No. N/A

6. Design Conditions $\frac{3600}{(\text{Pressure})}$ psi $\frac{100}{(\text{Temperature})}$ °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

[illegible]

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

WDC OR 215-16298

2

15-16296

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

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

and/or the State or Province of _____
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.

Date April 24, 1978

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

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

Date: 06/20/01

Sheet: 1 Of 1

2. **Plant:** Columbia Generating Station

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

Unit: Not Applicable

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

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

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

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

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

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

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

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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
HPCS(2)-1	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.

ENERGY NORTHWEST

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

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

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve 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. Std. 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)							
(7)							
(8)							
(9)							
(10)							

HPCS-V-39, S/N 56637

Rudolph B. B. B.
6/20/01

5. The valves are designed to handle a fluid media which includes steam, water condensate, heated 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.

WBG ER 114-16286

* 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 2 9 6 0 1 3 2

1103 BR 215-16286

CERTIFICATE OF COMPLIANCE

CERTIFICATION OF DESIGN

(1) Signature not required. List name only.

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

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

Date: 06/28/01

2. **Plant:** Columbia Generating Station

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

Sheet: 1 Of 1

Unit: Not Applicable

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

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

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

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

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

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

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

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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCIC-V-63	Velan	594	N/A	N/A	1977	Replacement	Yes, Code Class 2

7. **Description Of Work Performed:** Replaced plug for the bonnet leak off connection for valve RCIC-V-63. The replacement work was performed as follows:

- 1) Upgraded ASME Section III, Code Class 2 hex head plug to ASME Section III, Code Class 1 by performing liquid penetrant (PT) examination on external non-threaded surfaces of the square head plug. Liquid penetrant (PT) examination results acceptable.
- 2) Removed existing plug from the valve bonnet leak off connection.
- 3) Installed replacement hex head plug in the valve bonnet leak off connection.
- 4) Made required weld.
- 5) Performed visual examination on the final weld. Visual examination results acceptable.
- 6) Performed liquid penetrant (PT) examination on the final weld. Liquid penetrant (PT) examination results acceptable.

ENERGY NORTHWEST

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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 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 Commissions _____
 Inspector's Signature National Board, State, and Endorsements

Date _____

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 06/12/01**Sheet:** 1 Of 12. **Plant:** Columbia Generating Station**Unit:** Not Applicable**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993523. (a) **Work Performed By:** Energy Northwest(b) **Repair Organization P.O. No, Job No, etc.:** Energy Northwest(c) **Type Code Symbol Stamp:** Not Applicable(d) **Certificate Of Authorization No.:** Not Applicable(e) **Expiration Date:** Not Applicable4. **Identification Of System:** Service Water (SW) System5. (a) **Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda, Code Case: None(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

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

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None
 Test Pressure: 215 Psig Test Temperature: 63° F
 Component Design Pressure: 309 Psig Temperature: 150° F

9. Remarks: 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 Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 6/13/01 Date 6/13/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5/15/01 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.

J. M. East Commissions 74866/7486 N.I.I.S.
 Inspector's Signature National Board, State, and Endorsements

Date 6/22/01

Design Sketch
006108

1. Manufactured by Contromatics Div., 222 Roberts St., E. Hartford, Ct.
(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 Outlet Size 20
(inch) (inch)

(a) Model No., (b) N Certificate Holder's (c) Canadian

Series No.
or Type

Serial
No.

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)

(6)

(7)

(8)

(9)

(10)

SW-V-2A, S/N 84962-4-2

5. Shutdown Cooling Water Tag #4-NSW-V-302B

(Brief description of service for which equipment was designed)

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
<u>Disc</u>	<u>ASME-SA-351 CF8M</u>	<u>Lodi Iron Works</u>	
<u>Ht #E535</u>			
(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.

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ENERGY NORTHWEST

PLAN No 2-1676

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

1. Owner: Energy Northwest

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

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Low Pressure Core Spray (LPCS) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 2, 1974 Edition with Winter 1974 Addenda, Code Case: None

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare Relief Valve (LPCS-RV-18)	Lonergan	138433-1-1 (LPCS-RV-18)	N/A	N/A	1994	Replacement	Yes, Code Class 2

7. Description Of Work Performed: Installed test port for spare relief valve Serial No 138433-1-1. The work was performed as follows:

- 1) Machined groove in the spare relief valve discharge flange.
- 2) Surface finished the grooved surfaces in the spare relief valve discharge flange.
- 3) Drilled holes in the spare relief valve discharge flange.
- 4) Installed new male connector on the spare relief valve discharge flange - See Note 2
- 5) Made required weld - See Note 2
- 6) Performed visual examination on the final weld. Visual examination results acceptable - See Note 2
- 7) Performed liquid penetrant (PT) examination on the final weld. Liquid penetrant (PT) examination results acceptable - See Note 2
- 8) Installed new cap on the male connector - See Note 2

NOTES -

- 1) The modified spare relief valve Serial No 138433-1-1 will be installed in the plant as LPCS-RV-18 in accordance with ASME Section XI Plan No 2-1677.
- 2) During the close-out review for ASME Section XI Plan 2-1676, it was determined that the male connector installed for the test port on spare valve Serial No 138433-1-1 (LPCS-RV-18) was welded using the wrong weld metal - See PER No 201-0342 for details. ASME Section XI Plan No 2-1746 has been issued to remove the installed male connector and existing weld metal and weld new male connector using the correct weld metal. In addition, new cap will be installed on the male connector.

ENERGY NORTHWEST

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

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

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

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh

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.

[Signature]

Inspector's Signature

Commissions

7486 W / 7486 W.I

National Board, State, and Endorsements

Date

3/26/01

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

PLAN No. 2-1616

Pg. 1 of 2

1. Manufactured and certified by Kunkle Industries Inc.
Loneragan Valve Division, 8222 Bluffton Rd., Fort Wayne, IN 46809
(name and address of NV Certificate Holder)
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 OES Whse Complex, WHS #1, North Power Plt Loop, Richland, VA 993
(name and address)
4. Valve ND30FS021-DG 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
Body Cap	J1592-5	SA-216 WCB	70 ksi
Body Bonnet	T2633-9	SA-216 WCB	70 ksi
Nozzle	23016	SA-479 TY 316	75 ksi
Disk	35492	SA-479 TY 316	75 ksi
Body Stem	94918	SA-479 TY 316	75 ksi
Body Comp. Screw	701152	SA-479 TY 316	75 ksi
Body Spring Step	380C3	SA-479 TY 316	75 ksi
Spring	AJ7182	A-313 TY 316	*
Body Nut	8079541/N4C	SA-194 GR 2H	N/A
Body 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
Kunkle Industries Inc.
Date 7-27-94 Name Loneragan 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 8 1/2 x 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(12/88)

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

K. W. P. S. S.
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 BSBI & I Co.
of Hartford, CT

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

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

Date 7-27-94 Signed Richard P. Dwyer Commissions NB 7444 (NBIA), IND 84D
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

20020102300

8/1/94



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

1. Owner: Energy Northwest

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

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Low Pressure Core Spray (LPCS) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
LPCS(3)-1	WPPSS *	LPCS(3)-1	N/A	N/A	1983	-----	Yes, Code Class 2
LPCS(1)-2	WPPSS *	LPCS(1)-2-P1	N/A	N/A	1984	-----	Yes, Code Class 2
LPCS-RV-18	Loneragan	509258-70-1	N/A	N/A	1978	Replaced	Yes, Code Class 2
LPCS-RV-18	Loneragan	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.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ 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 5/26/01 to 6/22/01 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

M. M. Foster
 Inspector's Signature

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

Date 6/22/01

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

PLAN NO. 2-1677

1. Manufactured and certified by Kunkle Industries Inc.
Loneragan Valve Division, 8222 Bluffton Rd., Port Wayne, IN 46809
(name and address of RV 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, WPP-2 OES Wheel Complex, WWS #1, North Power Plt Loop, Richland, VA 99352
(name and address)
4. Valve ND30FS021-DG Orifice size .658 Nom. inlet size 1 1/2" Outlet size 2"
(model no., series no.) (in.) (in.) (in.)
5. ASME Code, Section III, Division 1: 1974 WINTER 1974 2 N/A
(edition) (addenda date) (class) (Code Case no.)
6. Type SPRING 427 FIXED 450° F 641 at 33° MIN. °F
(spring, pilot or power operated) (set pressure, psig) (blowdown, psi) (rated temp.) (hydro. test, psig, inlet) (year built)
7. Identification 138433-1-1 N/A A930334 Rev. - N/A 1994
(Cert. Holder's serial no.) (CRN) (drawing no.) (Nat'l. Bd. no.) (year built)
8. Control ring settings 2 notches down
9. Pressure retaining items: LPCS-RV-18, S/N 138433-1-1

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	T4710-1	SA-216 WCB	70 ksi
xxxxxx Cap	J1592-5	SA-216 WCB	70 ksi
xxxxxx Bonnet	T2633-9	SA-216 WCB	70 ksi
Nozzle	23016	SA-479 TY 316	75 ksi
Disk	35492	SA-479 TY 316	75 ksi
xxxxxx Stem	94918	SA-479 TY 316	75 ksi
xxxxxx Comp. Screw	701152	SA-479 TY 316	75 ksi
xxxxxx Spring Step	380C3	SA-479 TY 316	75 ksi
Spring	AJ7182	A-313 TY 316	*
xxxxxx Nut	8079541/N4C	SA-194 GR 2H	N/A
xxxxxx Stud	8866612	SA-193 GR B7	125 ksi

(CONTINUED IN BLOCK 11)

10. Relieving capacity 98,200 (196.4 GPM) @ 10% overpressure as certified by the National Board 4-16-85
(steam or fluid, lb/hr) (psi) (date)
11. Remarks: Gag Plug Screw 30091 SA-479 TY 316 75 ksi
Ring Pin Screw 30091 SA-479 TY 316 75 ksi
Plug 18450 SA-479 TY 316 75 ksi

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

CERTIFICATION OF DESIGN			
Design Specification certified by	<u>D. Murphy</u>	P.E. State	<u>WA</u> Reg. no. <u>12542</u>
Design Report certified by	<u>N/A</u>	P.E. State	<u>N/A</u> Reg. no. <u>N/A</u>
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.	<u>N-2853</u>	Expires	<u>November 18, 1994</u>
Date	<u>7-27-94</u>	Name	<u>Kunkle Industries Inc.</u> <u>Loneragan Valve Division</u> <small>(NV Certificate Holder)</small>
		Signed	<u>B. J. Halligan</u> <small>(authorized representative)</small>

* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 1 through 4 on this Data Report 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. 600035
8/1/94

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Providence of Michigan and employed by ESBI & I Co.

on July 27, 1994 of Hartford, CT have inspected the valve described in this Data Report on 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 [Signature] (Authorized Inspector) Commissions NB 2444 (NB 1A) End 84D
(Part I, Ed. (incl. amendments) and State or Prov. and No.)

8/1/94

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

Date: 05/09/01

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

Sheet: 1 Of 1

2. **Plant:** Columbia Generating Station

Unit: Not Applicable

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

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

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

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

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

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

4. **Identification Of System:** 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.

ENERGY NORTHWEST

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

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

9. Remarks: See attached NV-1 Code Data Report for the spare relief valve Serial No 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 Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 5/14/01 Date 5/14/01

CERTIFICATE OF INSERVICE INSPECTION

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

A. M. East Commissions 7486W/7486 N I I S
 Inspector's Signature National Board, State, and Endorsements

Date 5/19/01

S/O S189230000.013

P.O. 248960

PLAN NO. 2-1678

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 SUPPLY CO. 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 Orifice size 0.394 (in.) Nom. inlet size 1-1/2 (in.) Outlet size 2 (in.)
(Model no., series no.)
5. ASME Code, Section III, Division 1: 1974 (edition) W-74 (addenda date) 2 (class) NA (Code Case no.)
6. Type Spring 1572 (spring, pilot or power operated) Fixed 70°F (set pressure, psig) (blowdown, psi) (rated temp.) 55.75 (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 NO7.0010.001 R/B
9. Pressure retaining items: SIN 97-16626 (HPCS-RV-35)
Quedip Suph 5/19/01

	Serial No. or Identification	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	Screwing 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% overpressure as certified by the National Board	105 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. Signed Joseph A. Parker
(NV Certificate Holder) (Authorized representative)

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

Certificate Holder's Serial 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 [Signature] Commissions TOX 803
(Authorized Inspector) (Nat'l. Bd. Incl. endorsements) and state or prov. and no.)

ENERGY NORTHWEST

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

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

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ 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 **Signed By** Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
Date 6/23/01 **Date** 6/23/01

CERTIFICATE OF INSERVICE INSPECTION

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

A. M. Felt **Commissions** 7486w/7486 N I I
 Inspector's Signature National Board, State, and Endorsements

Date 7/10/01

S/O S189230000.013

P.O. 248960

PLAN No. 2-1679

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 SUPPLY P.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 Orifice size 0.394 Nom. inlet size 1-1/2 Outlet size 2
(model no., series no.) (in.) (in.) (in.)
5. ASME Code, Section III, Division 1: 1974 W-74 2 NA
(edition) (addenda date) (class) (Code Case no.)
6. Type Spring 1572 Fixed 70°F * 5575 at Ambient °F
(spring, pilot or power operated) (set pressure, psig) (blowdown, psi) (rated temp.) (hydro. test, psig, inlet)
7. Identification 97-16626 NA N11.1313 R/B NA 1998
(Cert. Holder's serial no.) (ICRN) (drawing no.) (Nat'l. Bd. no.) (year built)
8. Control ring settings NA CBOM N07.0010.001 R/B
9. Pressure retaining items: HPCS-RV-35, S/N 97-16626
Child's Sup's

	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 * <u>135 GPM</u> (steam or fluid, lb/hr) @ <u>10%</u> (psi) overpressure as certified by the National Board <u>4/16/85</u> (date)			
11. Remarks: <u>9. Con't</u> <u>Cap B691</u> <u>SA216-WCB</u> <u>70</u>			
<u>Screw Gag Plug B694</u> <u>SA479-316</u> <u>75</u>			

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. Signed Joseph A. Park
(NV Certificate Holder) (authorized representative)

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

Certificate Holder's Serial 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 [Signature] Commissions TOX 803
(Authorized Inspector) (Nat'l. Bd. incl. endorsements) and state or prov. and no.]

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 07/09/01**Sheet:** 1 Of 12. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Unit:** Not Applicable3. **(a) Work Performed By:** Energy Northwest**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest**(c) Type Code Symbol Stamp:** Not Applicable**(d) Certificate Of Authorization No.:** Not Applicable**(e) Expiration Date:** Not Applicable4. **Identification Of System:** Reactor 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: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

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

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

- 1) Removed existing Local Power Range Monitoring (LPRM) incore assembly Serial No 94S0434 from the Reactor Pressure Vessel (RPV) Core Location No 24-09.
- 2) Installed replacement Local Power Range Monitoring (LPRM) incore assembly Serial No 00S11723 at the Reactor Pressure Vessel (RPV) Core Location No 24-09.

NOTES -

- 1) * General Electric (GE) Reuter-Stokes.
- 2) ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda for the Reactor Pressure Vessel (RPV).
- 3) ASME Section III, Code Class 1, 1977 Edition with Summer 1977 Addenda for the replacement Local Power Range Monitoring (LPRM) incore assembly Serial No 00S11723.

ENERGY NORTHWEST

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

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

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

9. Remarks: See attached N-2 Code Data Report for the replacement 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 Signed By Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 7/9/01 Date 7/9/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 5-17-01 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] Commissions 74864/7486 NIS IS
Inspector's Signature National Board, State, and Endorsements

Date 7-24-01

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

Quay Sup
7/9/01

Pg. 1 of 2

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 N/A N/A N/A 2001
(drawing no.) (mat'l spec. no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1977 Summer 1977 1 N/A
(edition) (addenda date) (class) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
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
(1) 00S11723	N/A
(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	National Board No. in Numerical Order
(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 1250 PSIG psi. Temp. Vessel 575°F. Seal 300°F. Hydro. test pressure 1925 PSIG at temp. 75 °F.
(when applicable)

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

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

CERTIFICATION OF DESIGN

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

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

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. Signed Richard D. Maud
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of 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 Commissions NB 9176 A, B, N Ohio 1776
(Authorized Inspector) [Nat'l Bd. (incl. endorsements) and state or prov. and no.]

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 02/26/01**Sheet:** 1 Of 12. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Unit:** Not Applicable3. **(a) Work Performed By:** Energy Northwest**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest**(c) Type Code Symbol Stamp:** Not Applicable**(d) Certificate Of Authorization No.:** Not Applicable**(e) Expiration Date:** Not Applicable4. **Identification Of System:** Standby Liquid Control (SLC) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
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	Loneragan	137180-1-1	N/A	N/A	1994	Replaced	Yes, Code Class 2
SLC-RV-29A	Loneragan	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.

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: Static Head Test Temperature: 84° F
 Component Design Pressure: 1400 Psig 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 Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) 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.

A. M. Davis Commissions 74864/7484 N B I I S
 Inspector's Signature National Board, State, and Endorsements

Date 3/6/01

Dudley Webb

1. Manufactured by T. E. Lonergan Company, Red Lion Rd., W. of Verree, Philadelphia, Pa. 19115
Name and AddressModel 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 Address3. Owner Washington Public Power, Hanford, Washington 99352
Name and Address4. Location of Plant Hanford #2 Jobsite, 12 Miles North of Richland, Washington 993525. Valve Identification SLC-RV-29A Serial No. 509258-82-1 Drawing No. A-2346, No Rev.Type Safety Relief Valve Orifice Size 0.110 Pipe Size _____ Inlet _____ Outlet _____
Safety; Safety Relief; Pilot; Power Actuated Sq. Inch Inch6. Set Pressure (PSIG) 1400 * 200 12/15/78
Rated PressureStamped Capacity 67.2 G.P.M. 10 % Overpressure Blowdown (PSIG) **
XXXXXXHydrostatic Test (PSIG) Inlet 2100 Outlet 425
XXXXXX Value7. The material, design, construction and workmanship comply with ASME Code, Section III, Winter Addenda
Class 2, Edition 1974, Addenda Date 12/31/74, Cann. No. 1555

Pressure Containing or Pressure Retaining Components

BOVEE & CRAIL / G.E.R.L.
Q.A./Q.C. APPROVEDSIGN: [Signature]
DATE 12/27/78 TAG # 34316

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

Serial No. or
Identification Heat No.
00657

Material Specification
Including Type or Grade

c. Spring

Studs - Cert. of Conformance

ASTM A-313 Type 316

d. Bolting

Nuts - Cert. of Conformance

ASME SA-320, GR. B8

ASME SA-194, GR. 8

e. Other Parts such as Pilot Components

Cap

02977

ASME SA-479 Type 316

BOVER
Q.I. MAIL / G.E.R.I.
ROVED

SIGN: SWR

DATE: 12-22-79

** 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. NICKY

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. Connepp
(Inspector)

Commissions

Pa 1786
(National Board, State, Province and No.)

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 02/26/01**Sheet:** 1 Of 12. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Unit:** Not Applicable3. **(a) Work Performed By:** Energy Northwest**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest**(c) Type Code Symbol Stamp:** Not Applicable**(d) Certificate Of Authorization No.:** Not Applicable**(e) Expiration Date:** Not Applicable4. **Identification Of System:** Standby Liquid Control (SLC) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
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	Loneragan	137180-1-2	N/A	N/A	1994	Replaced	Yes, Code Class 2
SLC-RV-29B	Loneragan	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.

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: Static Head Test Temperature: 82° F
 Component Design Pressure: 1400 Psig 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 Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) 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. F. J. T. G. Commissions 7486 W/7486 I IS. N
 Inspector's Signature National Board, State, and Endorsements

Date 3/4/01

Kunkle Industries, Inc.

1. Manufactured and certified by Lonergan Valve Division, 8222 Bluffton Road, Fort Wayne, IN 46809 PLAN 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. Location 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 Orifice size .394 Nom. inlet size 1" Outlet size 2"
(model no., series no.) (in.) (in.) (in.)
5. ASME Code, Section III, Division 1: 1974 Winter 1974 2 N/A
(edition) (addenda date) (class) (Code Case no.)
6. Type Spring 1400 N/A 100° F 2100 at 33° min. of
(spring, pilot or power operated) (set pressure, psig) (blowdown, psi) (rated temp.) (hydro. test, psig, inlet)
7. Identification 139407-1-1 through 139407-1-2 N/A A940014 Rev. 0 N/A 1994
(Cert. Holder's serial no.) (CRN) (drawing no.) (Nat'l. Bd. no.) (year built)
8. Control ring settings N/A

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

9. Pressure retaining items:

Kunkle Sup 6
3/24/01

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	S6601-1, -2	SA-351 CF8M	70 ksi
Bonnet XXXXX	T4795-5, -6	SA-351 CF8M	70 ksi
XXXXX 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 XXXXX Step	31828	SA-479 TY316	75 ksi
XXXXX Cap	H8506-4, -12	SA-351 CF8M	70 ksi
XXXXX Gag Plug Screw	30091	SA-479 TY316	75 ksi
Spring	20330	ASTM A-313 TY316	*
Ring Pin Screw	30091	SA-479 TY316	75 ksi
XXXXX Stem	704631	SA-479 TY316	75 ksi

(Continued below)

10. Relieving capacity 63,500 (127 GPM) @ 10% overpressure as certified by the National Board 01/25/85
(steam or fluid, lb/hr) (psi) (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
Kunkle Industries, Inc.
Date 8-3-94 Name Lonergan Valve Division Signed Debra G. Zetzel
(NV Certificate Holder) (authorized representative)

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

8/14/94

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 *Richard P. Craig* Commissions N137444(NBIA), Ind 840
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 06/13/01**Sheet:** 1 Of 1**Unit:** Not Applicable2. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993523. **(a) Work Performed By:** Energy Northwest**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest**(c) Type Code Symbol Stamp:** Not Applicable**(d) Certificate Of Authorization No.:** Not Applicable**(e) Expiration Date:** Not Applicable4. **Identification Of System:** Residual Heat Removal (RHR) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
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	Loneragan	128261-1-1	N/A	N/A	1993	Replaced	Yes, Code Class 2
RHR-RV-25B	Loneragan	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.

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

Test Temperature: 77.4° 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-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 Signed By Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

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

CERTIFICATE OF INSERVICE INSPECTION

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

A. M. Felt Commissions 7486 W / 7486 N E E
Inspector's Signature National Board, State, and Endorsements

Date 7/10/01

WBB BR-215-18807

TRG 57698

RHR-20 22-1

As required by the Provision of the ASME Code Rules

PLAN No. 2-1686

1. Manufactured by J. E. Lonergan Co., Red Lion 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 Bovee & Crail Const. Co. and General Energy Resources, Inc., Richland, Washington
Name and Address Order No. 215-15190

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-25C Serial No. 509258-76-1 Drawing No. A-2369 Rev. D

Type Safety Relief Valve Orifice Size 0.110 Pipe Size _____ Inlet 1" Outlet 2"
Safety; Safety Relief; Pilot; Power Actuated 8Q inch inch inch

6. Set Pressure (PSIG) 500 450
Rated Temperature _____

Stamped Capacity 40.1 GPM 10 % Overpressure 11 Blowdown (PSIG) 11
Capacity, Pressure

Hydrostatic Test (PSIG) Inlet 750 Outlet 425
Temperature Valve

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

Pressure Containing or Pressure Retaining Components

A. Castings

Body

Serial No. or Identification

D8350-19

Material Specification Including Type or Grade

ASME SA-216/WCB

Flange

D8350-22

ASME SA-216/WCB

B. Bar Stock and Forgings

Support Rails

C17792

ASME SA-479 Type 304

Nozzle

01629

ASME SA-479 Type 304

Disc

C17792

ASME SA-479 Type 304

Spring Washers

91015

ASME SA-479 Type 304

Adjusting Screw

91372

ASME SA-479 Type 410

Spindle

Identification Heat No.

W39717

Including Type or Grade

ASTM A-229

ASME SA-193, CR. B-7

ASME SA-194, CR. 2H

c. Spring

Studs - Cert. of Conformance

d. Bolting

NUTS - Cert. of Conformance

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 77 Signed J. E. LONERGAN COMPANY Manufacturer

T. A. NICKY

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.&L. CO. of Hartford, Conn. have inspected the equipment described in this Data Report on April 18 19 77 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 19 77

William J. Lonergan
(Inspector)

Commission

P-1756

(National Board, State, Province and No.)

2 1597 22 6 WBBB 215-18807 3



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	Loneragan	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) ** Loneragan 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.

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

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

CERTIFICATE OF INSERVICE INSPECTION

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

A. M. Datta Commissions 74864/7486 N I I S
 Inspector's Signature National Board, State, and Endorsements

Date 7/10/01

* Correction

FORM NV-1 PGR SAFETY AND SAFETY RELIEF VALVES

PLAN No. 21688

As required by the Provision of the ASME Code Rules

WBOB 215-14437

6/12/01

1. Manufactured by J. E. Lonergan Co., 500 Lion Rd., W. of Verrae, 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.
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. 509258-26-1 Drawing No. A2370, Rev. F

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

6. Set Pressure (PSIG) 220 450 or
Rated Temperature

Stamped Capacity 26.9 G.P.M. 10 % Overpressure Blowdown (PSIG) 10%
XXXXXX

Hydrostatic Test (PSIG) Inlet 330 Outlet 425
Connection Valve

7. The material, design, construction and workmanship comply with ASME Code, Section III, Winter Addenda

Class 2, Edition 1974 Addenda Date 12/31/74 1975

Pressure Containing or Pressure Retaining Components

SPECIFICATION NO.	<u>159</u>
SECTION NO.	<u>3.7.3.4</u>
PARAGRAPH NO.	

a. Castings	Serial No. or Identification	Material Specification Including Type or Grade
Body	<u>D8350-20</u>	<u>ASME SA-216/WCB</u>
Bonnet or Nuts	<u>D8350-4</u>	<u>ASME SA-216/WCB</u>
b. Bar Stock and Forgings		
Support Rods	<u>N/A</u>	<u>N/A</u>
Nozzle	<u>C17792</u>	<u>ASME SA-479 Type 304</u>
Disc	<u>01629</u>	<u>ASME SA-479 Type 304</u>
Spring Washers	<u>C17792</u>	<u>ASME SA-479 Type 304</u>
Adjusting Screw	<u>91015</u>	<u>ASME SA-479 Type 304</u>
Spindle	<u>91372</u>	<u>ASME SA-479 Type 410</u>

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

FORM NY-1 (back)

Serial No. or

Identification

Heat No.

X3986

Material Specification

Including Type or Grade

ASTM A-229 WDG BR 215-14437

- c. Spring Body Straps --- Cert. of Conformance.
d. Bolting Body Nuts --- Cert. of Conformance

ASME SA-193, GR. B7
ASME SA-194, GR. 2H

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 Manufacturer

T. A. McKee

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 Penn. and employed by The Hartford Stm. Boiler I. & L. 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

Edi S. Caplan
(Inspector)

Commission

Pl. 22651
(National Board, State, Province and Loc.)

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**

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

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-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

Signed By

Kuldip Singh

Kuldip Singh - Program Lead Engineer (PLE)

Kuldip Singh - Program Lead Engineer (PLE)

Date

6/13/01

Date

6/13/01

CERTIFICATE OF INSERVICE INSPECTION

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

J. M. Smith

Inspector's Signature

Commissions

74864/7486 N.E. 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 Orifice size .398 Nom. Inlet size 3/4 Outlet size 1
(Model No./Series No.) (in.) (in.) (in.)

5. ASME Code, Section III, Division 1: 1986 1986 3 --
(Edition) (Addenda Date) (Class) (Code Case No.)

6. Type SAFETY RELIEF Valve I.D./Tag No. CIA-RV-5A
(Spring, Pilot or Power Operated)

200 10% OF SP 100 425 at 70 °F
(Set Pressure, psig) (Blowdown, psi) (Rated Relieving Temperature) (Hydro Test psig, Inlet)

7. Ident. N95308-00-0002 DS-C-95308 REV.A -- 2000
(Cert. Holder's serial no.) (CRN) (Drawing No.) (Nat'l Bd. No.) (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

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 [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 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 [Signature]

(Authorized Inspector)

Commissions MA-1418

(Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

2. **Plant:** Columbia Generating Station

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

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

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

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

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

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

4. **Identification Of System:** Containment Instrument Air (CIA) System

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

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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CIA(5)-1B	WPPSS *	CIA(5)-1B-P1	N/A	N/A	1983	-----	Yes, Code Class 3
CIA-RV-5B	Lonergan	509258-102-1	N/A	N/A	1982	Replaced	Yes, Code Class 3
CIA-RV-5B	Crosby	N95308-00-0004	N/A	N/A	2000	Replacement	Yes, Code Class 3

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

- 1) Removed existing relief valve CIA-RV-5B, Serial No 509258-102-1.
- 2) Installed replacement relief valve CIA-RV-5B, Serial No N95308-00-0004.
- 3) Reinstalled existing studs and nuts for the relief valve joint.

NOTES -

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system applicable to the replacement relief valve CIA-RV-5B, Serial No N95308-00-0004 is Containment Instrument Air (CIA) piping system CIA(5)-1B-P1. This piping system is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The replacement relief valve CIA-RV-5B, Serial No N95308-00-0004 is certified to comply with ASME Section III, Code Class 3, 1986 Edition with 1986 Addenda requirements.

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 Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 6/13/01 Date 6/13/01

CERTIFICATE OF INSERVICE INSPECTION

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

J. M. East Commissions 7486W/7486 N I I S
 Inspector's Signature National Board, State, and Endorsements
 Date 6/22/01

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

Widely Sub
6/14/01

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 Orifice size .398 Nom. Inlet size 3/4 Outlet size 1
(Model No./Series No.) (in.) (in.) (in.)

5. ASME Code, Section III, Division 1: 1986 1986 3 -
(Edition) (Addenda Date) (Class) (Code Case No.)

6. Type SAFETY RELIEF Valve I.D./Tag No. CIA-RV-5B
(Spring, Pilot or Power Operated)

200 10% OF SP 100 425 at 70 °F
(Set Pressure, psig) (Blowdown, psi) (Rated Relieving Temperature) (Hydro Test psig, Inlet)

7. Ident. N95308-00-0004 DS-C-95308 REV.A - 2000
(Cert. Holder's serial no.) (CRN) (Drawing No.) (Nat'l Bd. No.) (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

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

Anderson Greenwood Crosby

Date 24 mar 00 Name 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 27, 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 03/27/2000 Signed _____

(Authorized Inspector)

Commissions _____

(Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

MA-1418 'N'

ENERGY NORTHWEST

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

1. Owner: Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 05/31/00**Sheet:** 1 of 1**2. Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Unit:** Not Applicable**3. (a) Work Performed By:** Energy Northwest**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest**(c) Type Code Symbol Stamp:** Not Applicable**(d) Certificate Of Authorization No.:** Not Applicable**(e) Expiration Date:** Not Applicable**4. Identification Of System:** Main Steam (MS) System**5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with 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 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.

ENERGY NORTHWEST

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

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

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/2/00

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.

A. M. Smith
Inspector's Signature

Commissions SWIIS 7486
National Board, State, and Endorsements

Date 6/6/00

ENERGY NORTHWEST

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

1. Owner: Energy Northwest

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

Date: 05/15/00

Sheet: 1 of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Diesel Cooling Water (DCW) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 3, 1974 Edition with Winter 1974 Addenda, Code Case: None

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

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

ENERGY NORTHWEST

PLAN No 2-1693

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: 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. Fort
Inspector's Signature

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

Date 5-22-00

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

2. **Plant:** Columbia Generating Station

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

Date: 05/15/00

Sheet: 1 of 1

Unit: Not Applicable

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

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

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

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

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

4. **Identification Of System:** Diesel Cooling Water (DCW) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 3, 1974 Edition with Winter 1974 Addenda, Code Case: None

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

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

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐ None
 Test Pressure: 215 Psig Test Temperature: 58° F
 Component Design Pressure: 300 Psig Temperature: 300° F

9. Remarks: None.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 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. D. A. T. S. Commissions 7496W/7486 NISI
 Inspector's Signature National Board, State, and Endorsements

Date 5-22-00

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
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 RCIC-V-12 RCIC-V-90	WPPSS * Velan Enertech	RCIC(1)-4CL2-P1 101 11046	N/A N/A N/A	N/A N/A N/A	1984 1976 2000	----- Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

7. **Description Of Work Performed:** Replaced existing gate valve RCIC-V-12, Serial No 101 with nozzle check valve RCIC-V-90, Serial No 11046. The replacement work was performed as follows:
- 1) Removed existing butt welded gate valve RCIC-V-12, Serial No 101.
 - 2) Installed two (2) new mating slip on flanges in the piping system.
 - 3) Made required mating slip on flanges to pipe welds.
 - 4) Performed visual examination on the final welds. Visual examination results acceptable.
 - 5) Performed magnetic particle (MT) examination on the final welds. Magnetic particle (MT) examination results acceptable.
 - 6) Performed magnetic particle (MT) examination on the final welds for ISI (PSI). Magnetic particle (MT) examination results acceptable.
 - 7) Installed replacement valve RCIC-V-90, Serial No 11046.
 - 8) Installed studs and nuts for valve RCIC-V-90 bolted flanged joints.
 - 9) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement valve RCIC-V-90, Serial No 11046 was installed is Reactor Core Isolation Cooling (RCIC) piping system RCIC(1)-4CL2-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The replacement valve RCIC-V-90, Serial No 11046 is certified to comply with ASME Section III, Code Class 2, 1995 Edition with 1996 Addenda requirements.
- 4) The magnetic particle (MT) examination on the final welds was performed in accordance with the requirements of ASME Section III, Code Class 2, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 5) The VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints was performed in accordance with the requirements of ASME Section XI, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.

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

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

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 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. Fort Commissions 74866/7486 NIS IS
 Inspector's Signature National Board, State, and Endorsements

Date 7/24/01

FORM NPV-1 (Back — Pg. 2 of 2)

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 Signed [Signature]
(N Certificate Holder) (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of 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 [Signature] Commissions CA 1494
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 06/26/01**Sheet:** 1 Of 12. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Unit:** Not Applicable3. **(a) Work Performed By:** Energy Northwest**(b) Repair Organization P.O. No, Job No, etc.:** Energy Northwest**(c) Type Code Symbol Stamp:** Not Applicable**(d) Certificate Of Authorization No.:** Not Applicable**(e) Expiration Date:** Not Applicable4. **Identification Of System:** Reactor Core Isolation Cooling (RCIC) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCIC(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, 1995 Edition 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.

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 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 Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) 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 Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 4/26/01 to 7/11/01 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

A. M. E. Smith Commissions 7486W/7486 WEIS
 Inspector's Signature National Board, State, and Endorsements

Date 7/11/01

PLAN NO. 2-1696

RCIC-RV-3, SIN N98651-00-0001

Q.C.-44E
Sheet 1 of 2*Relief Supply
april 2001*

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 Orifice size .124 Nom. Inlet size 3/4 Outlet size 1
(Model No./Series No.) (in.) (in.) (in.)

5. ASME Code, Section III, Division 1: 1995 1996 2 --
(Edition) (Addenda Date) (Class) (Code Case No.)

6. Type SAFETY RELIEF Valve I.D./Tag No. RCIC-RV-3
(Spring, Pilot or Power Operated)

1500 10% OF SP 140 2250 at 70 °F
(Set Pressure, psig) (Blowdown, psi) (Rated Relieving Temperature) (Hydro Test psig, Inlet)

7. Ident. N98651-00-0001 -- DS-C-98651 REV.A -- 2001
(Cert. Holder's serial no.) (CRN) (Drawing No.) (Nat'l Bd. No.) (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.CP8M	70,000
Bonnet	N98431-31-0001	ASME SA351 GR.CP8M	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

10. Relieving capacity 11 GPM WTR @ 70 @ 10 overpressure as certified by the National Board 02/10/81
(steam or fluid, lb/hr) (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 Signed D. E. Tuttle
(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 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 [Signature] Commissions MA-1418 N
(Authorized Inspector) (Nat'l. Bd. (incl. Endorsements) and state or prov. and no.)

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. 2-1696

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

Series No. Serial Registration (d) Drawing (e) Class (f) Nat'l. (g) Year
or Type No. No. No. No. Bd. No. Built

(1)	1500#	79951 thru	N/A	76590-2	1	N/A	1983
(2)		79570					
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

RCIC-V-758, S/N 79962

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

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Disc-Code 1X20	Stellite #6	Rex Precision	
1T01, 1W10, 5F32			
(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

[illegible]

-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.

ADDENDUM Winter '75 Code Case No. N/A Date 7/29/83

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

(In Certificate Holder)

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

(N) (Date)

CERTIFICATION OF DESIGN

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

Design specifications certified by (1) David J. Murphy
PE State Washington Reg. No. 12542
Stress analysis certified by (1) Byron H. Leonard
PE State CA Reg. No. E123

(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 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 11/29/83 1983
(Inspector)

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

BECHTEL
653

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

Date: 06/16/01

2. **Plant:** Columbia Generating Station

Sheet: 1 Of 1

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

Unit: Not Applicable

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

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

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

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

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

4. **Identification Of System:** Process Instrumentation (PI) System

5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1974 Edition with Winter 1975 Addenda, Code Case: None

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
PI(1)-ST-RCIC-PS-34	JCI	PI(1)-ST-RCIC-PS-34	N/A	N/A	1982	-----	Yes, Code Class 2
Valve	Dragon	PB1195	N/A	N/A	1993	Replacement	Yes, Code Class 2
Valve	Dragon	PB1198	N/A	N/A	1993	Replacement	Yes, Code Class 2
Valve	Dragon	PB1200	N/A	N/A	1993	Replacement	Yes, Code Class 2
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.

ENERGY NORTHWEST

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

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

9. Remarks: See attached NPV 1 Code Data 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 Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) 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 _____ Commissions _____
 Inspector's Signature National Board, State, and Endorsements

Date _____

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

PLAN No. 2-1697

- (a) Model No., (b) N Certificate Holder's (c) Canadian

Series No.
or Type

**Serial
No.**

**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) | | | | | | | |

Instrument Valve

Quilip Super
6/15/01

(11 Pcs.)

(Brief description of service for which equipment was designed)

6. Design Conditions 3600 psi 100 °F or Valve Pressure Class 1500 (1)
(Pressure) (Temperature)
7. Cold Working Pressure 3600 psi at 100°F.
8. Pressure Retaining Pieces

[illegible]

* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 1, 2 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 (E-00037) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

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

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, Code Case No. N/A, Date August 23, 1993
Signed DRAGON VALVES INC. by R. L. Sinyard
(In Certificate holder)
Our ASME Certificate of Authorization No. N 1033 to use the N symbol expires 10/1/93
(Date)

Design information on file at Washington 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.

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 8-14 19 73
Laetitia
(Inspector) Commissions CA 1716
(Nat'l Bd., State, Prov. and No.)

FORM NPV-1 N CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES- 3 of 4
As Required by the Provisions of the ASME Code, Section III, Div. 1

PLAN NO. 2-1697

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 Outlet Size 1/2 Tube
(inch) (inch)

(a) Model No. Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l Std. No.	(g) Year Built
7N058SWD	GP1363	None	10580	2	None	1981
	thru					
	GP1387					

SERIAL NO. GP 1378

Relief Supp
6/15/01

OS&Y Instrumentation Valves (25 Pcs.)
(Brief description of service for which equipment was designed)

Design Conditions 3600 psi 100 °F or Valve Pressure Class 1
(Pressure) (Temperature)
Working Pressure 3600 psi at 100°F.
Sealing Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings - None			
2	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <i>Passes</i> QA REVIEWED BY <i>ME</i> DATE <i>4-1-81</i> </div>		
(b) Forgings			
Body	ASME SA182 Gr. F316	Ajax Forge Co.	HT 843801
Yoke	ASME SA182 Gr. F316	Ajax Forge Co.	HT 77942

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

Report

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting	None		
(d) Other Parts			
Disc	ASME SA564 C-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. I., Edition 1974

Addenda 6-30-75 (Date) Code Case No. None Date May 1981

Signed DRAGON VALVES, INC. (N Certificate Holder) by [Signature]

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 [Signature] Commissions 64658
(that's State, Prov. and No.)

2 1 6 5 3 2 3 7 0

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 12. **Plant:** Columbia Generating Station**Unit:** Not Applicable**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993523. **(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, 20034. **Identification Of System:** Main Steam (MS) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare Valve	Crosby	N63790-03-0045	N/A	N/A	1981	Replaced	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	Replaced	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	Replaced	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.

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: 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 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 8-23-00 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.

[Signature] Commissions 7486W/7486 I IS
 Inspector's Signature National Board, State, and Endorsements
 Date 8-23-00

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: N63790-03-0045

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:

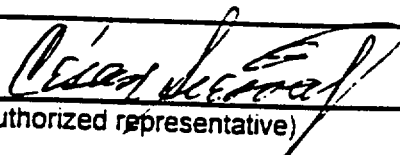
Disc Holder Spiral Pins (2): MC 54407794

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


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. 2-1698

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**FOR INFORMATION ONLY**

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

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings		
Body	<u>N93183-35-0064</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-35-0027</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. XXXXXXXXXXXXXXXXXXXX		
XXXXXXXXXXXX Disc Insert	<u>N93185-34-0076</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-32-0047</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder *K55484-35-0092	<u>*N89714-34-0133</u>	<u>AMS 5662B</u>
Spring Washers K62858-35-0027	<u>K62856-35-0083</u> <u>K62857-35-0048</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0052</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point K62873-37-0146	<u>N89720-43-0143</u>	<u>ASME SA564 Type 630</u>
c. Spring K62858-35-0027	<u>NX2689-0123</u>	<u>ASTM A304-66 Gr. 4161H</u>
d. Bolting		
Spindle Ball		<u>7X00380093</u>
e. XXXXXXXXXXXX K62873-37-0146	<u>N93213-0213</u>	<u>Stoody #6</u>
Thrust Bearing Adapter	<u>N93409-32-0047</u>	<u>ASME SA193 Gr. B6</u>
Bonnet Stud (I17)	<u>N93207-0537 thru 0548</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut (J87)	<u>N93210-0757 thru 0768</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud (BW6)	<u>N93216-0539 thru 0550</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Inlet Stud Nut (BW8)	<u>N93218-0543 thru 0554</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>
Adjusting Bolt Button	<u>N93411-32-0043</u>	<u>ASME SA193 Gr. B6</u>

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

N63790-00-0045

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

Design specifications certified by 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. D. Morone Commissions MASS 1266
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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

ZX00380214

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 07/19/00**Sheet:** 1 of 1**Unit:** Not Applicable2. **Plant:** Columbia Generating Station**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993523. **(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, 20034. **Identification Of System:** Main Steam (MS) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

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

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: 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 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 8/23/00 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.

NEATH Commissions 74864/7486 IIS
 Inspector's Signature National Board, State, and Endorsements
 Date 8/23/00

PLAN No. 2-1699

- # CERTIFICATE OF COMPLIANCE

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

Authorized representative

CERTIFICATE OF INSPECTION

Carl R. Enns
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

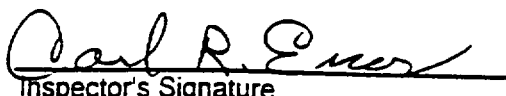
Eductor Gasket: MC 56230461

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 NWS Technologies, LLC  Manager, QA
Date (repair organization) (authorized representative) (title)

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

CROSBY**CROSBY VALVE & GAGE COMPANY**

WRENTHAM, MASS

PLAN No. 2-1699

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

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093
Name and Address
- Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A
General Electric Company, 175 Curtner Ave.,
2. Manufactured For San Jose, CA 95125 Order No. 205-AJ986
Name and Address
3. Owner Washington Public Power Supply System, Richland, Washington 99352
Name and Address
4. Location of Plant Hanford Reservation, Richland, Washington 99352
5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0047 Drawing No. DS-A-63790 Rev. C
Type Safety Relief Orifice Size R Pipe Size -- Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Inch Inch Inch Inch
Power Actuated
6. Set Pressure (psig) 1175 5750 F
Rated Temperature
- Stamped Capacity 884,314 @ 3 X Overpressure -- Blowdown (psig) 2% to 11%
975 psig (Assembled Valve)
- Hydrostatic Test (psig) Inlet 2370 Outlet 1100 psig (Body Only)
(Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings		
Body	<u>N93183-35-0066</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-35-0029</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. Disc & Forgings		
Disc Disc Insert	<u>N93185-34-0078</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-32-0049</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder *K55484-35-0098	<u>*N89714-34-0136</u>	<u>AMS 5662B</u>
Spring Washers K62858-35-0029	<u>K62856-35-0085</u> <u>K62857-35-0050</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0054</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point K62873-37-0148	<u>N89720-43-0147</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
c. Spring K62858-35-0029	<u>*N89722-0003</u>	<u>ASTM A304-66 Gr. 4161 H</u>
d. Bolting		
Spindle Ball		<u>7X00380110</u>
e. Thrust Bearing Adapter K62873-37-0148	<u>N93213-0215</u>	<u>Stoody #6</u>
Thrust Bearing Adapter	<u>N93409-32-0049</u>	<u>ASME SA193 Gr. B6</u>
Bonnet Stud (BW5, I17)	<u>N93207-0561 thru 0572</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut (J87)	<u>N93210-0781 thru 0792</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud (BW6)	<u>N93216-0563 thru 0574</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Inlet Stud Nut (BW8)	<u>N93218-0567 thru 0578</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>

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

~~MS BY 2C~~
~~Rule 1p. 501's~~ 241E
NW 3790-00-0047

CERTIFICATE OF COMPLIANCE

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

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

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

symbol expires September 30, 1983.
(Date)

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

43 Kendrick Street, Wrentham, Massachusetts 02093

Design specifications certified by ¹ Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by ¹ W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

-Signature not required - list name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and
Pressure Vessel Inspectors and the State or Province of Massachusetts
and employed by Factory Mutual Systems* of Norwood, Massachusetts
have inspected the pump, or valve, described in this Data Report on 1/9, 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. Further-
more, 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 19 81.

Signed John D. Moore Commissions MASS 126 F
(Inspector) (Nat'l. Bd., State, Prov. and No.)

FOR INFORMATION ONLY

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

ZX00380111

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

2. **Plant:** Columbia Generating Station

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

3. (a) **Work Performed By:** 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	N63790-03-0048	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.

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: 81° 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 N63790-03-0048 (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 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 8-23-00 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.

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

Date 8/23/00

PLAN No. 2-1700

12. Remarks: See attachment 1.

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

Date _____

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)

[Signature]
(authorized representative)

Manager, QA
(title)

6/19/00
Date

Carl R. Emmer
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. 2-1700

FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES
As Required by the Provisions of the ASME Code RulesDATA REPORT
Safety and Safety Relief ValvesQ.C. - 44D
Quay Sup
7/20/60

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093
Name and Address
- Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A
General Electric Company, 175 Curtner Ave.,
2. Manufactured For San Jose, CA 95125 Order No. 205-AJ986
Name and Address
3. Owner Washington Public Power Supply System, Richland, Washington 99352
Name and Address
4. Location of Plant Hanford Reservation, Richland, Washington 99352
5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0048 Drawing No. DS-A-63790 Rev. C
Type Safety Relief Orifice Size R Pipe Size 6 Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Inch 1 Inch 1 Inch 1 Inch
Power Actuated
6. Set Pressure (psig) 1175 575° F
Rated Temperature
- Stamped Capacity 884,314 @ 3 X Overpressure 22 to 112 Blowdown (psig)
- Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve)
1100 psig (Body Only)
- Pressure Retaining Pieces (Applicable to Valves for Closed Systems Only)

	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings		
Body	<u>N93183-35-0067</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-35-0030</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. Bar Stock & Forgings		
Support Disc Insert	<u>N93185-34-0079</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-33-0052</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder *K55484-35-0081	<u>*N89714-34-0126</u>	<u>AMS 5662B</u>
Spring Washers K62858-35-0030	<u>K62856-35-0086</u> <u>K62857-35-0051</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0055</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point K62873-35-0048	<u>*N89720-34-0065</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
c. Spring K62858-35-0030	<u>*N89722-0004</u>	<u>ASTM A304-66 Gr. 4161H</u>
d. Bolting		
Spindle Ball		
e. Bar Stock & Forgings K62873-35-0048	<u>N93213-0048</u>	<u>Stellite #6</u>
Thrust Bearing Adapter	<u>N93409-32-0050</u>	<u>ASME SA193 Gr. B6</u>
Bonnet Stud (I17)	<u>N93207-0573 thru 0584</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut (J87)	<u>N93210-0793 thru 0804</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud (BW6)	<u>N93216-0575 thru 0586</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Inlet Stud Nut (BW8)	<u>N93218-0579 thru 0590</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>

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

NL3790-00-0048

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

Design specifications certified by ¹ Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by ¹ W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

¹Signature not required - list name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Systems* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 11/24, 1980 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 11/24 19 80
Signed John E. Morris Commissions MASS 1266
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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

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	N63790-03-0053	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	Replaced	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	Replaced	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.

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: 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
 Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh
 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]
 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
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 replacement of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

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

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

6/19/00
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 ASME Code and the National Board Inspection Code "VR" and "NR" rules.

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

6/19/00
Date

Carl R. 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: N63790-03-0053

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)

[Signature]
(authorized representative)

Manager, QA
(title)

6/19/00

Date

Carol R. Ennis
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. 2-1701**Jul 20 1979**7/20/79 Q.C.-44D*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

FOR INFORMATION ONLY

1. Manufactured By <u>Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093</u>		
Name and Address		
Model No. <u>HB-65-BP-FN</u>	Order No. <u>N94275</u>	Contract Date <u>4/24/79</u> National Board No. <u>N/A</u>
General Electric Company, 175 Curtner Ave.,		
2. Manufactured For <u>San Jose, CA 95125</u> Order No. <u>205-AJ986</u>		
Name and Address		
3. Owner <u>Washington Public Supply System, Richland, Washington 99352</u>		
Name and Address		
4. Location of Plant <u>Hanford Reservation, Richland, Washington 99352</u>		
5. Valve Identification <u>MPL #B22-F013</u> Serial No. <u>N63790-00-0053</u> Drawing No. <u>DS-A-63790</u> Rev. <u></u>		
Type <u>Safety Relief</u>	Orifice Size <u>R</u>	Pipe Size <u>--</u> Inlet <u>6</u> Outlet <u>10</u>
<u>Safety, Safety Relief, Pilot,</u>	<u>Inch</u>	<u>Inch</u> <u>Inch</u> <u>Inch</u>
<u>Power Actuated</u>		
6. Set Pressure (psig) <u>1185</u>		<u>575°</u> F
		Rated Temperature
Stamped Capacity <u>891,750</u> @ <u>3</u> Overpressure		Blowdown (psig) <u>2% to 11%</u>
		<u>975 psig (Assembled Valve)</u>
Hydrostatic Test (psig) Inlet <u>2370</u>		Outlet <u>1100 psig (Body Only)</u>
		(Applicable to Valves for Closed Systems Only)
Pressure Retaining Pieces		
	Serial No. Identification	Material Specification Including Type or Grade
a. <u>Bar Stock & Forgings</u>		
<u>Body</u>	<u>N93183-35-0072</u>	<u>ASTM A105-71 Gr. II</u>
<u>Bonnet</u>	<u>N93407-35-0035</u>	<u>ASTM A105-71 Gr. II</u>
b. <u>Disc Insert</u>	<u>N93185-34-0085</u>	<u>ASME SA637 Gr. 718</u>
<u>Nozzle</u>	<u>N93184-33-0057</u>	<u>ASME SA182 Gr. F316</u>
<u>Disc Holder</u> *K55484-35-0082	<u>*N89714-34-0089</u>	<u>AMS 5662B</u>
<u>Spring Washers</u> K62858-35-0035	<u>K62856-35-0091</u>	<u>ASTM A105-71 Gr. II</u>
	<u>K62857-35-0056</u>	<u>ASME SA105 Gr. II</u>
<u>Adjusting Bolt</u>	<u>N93410-33-0060</u>	<u>ASME SA193 Gr. B6</u>
<u>Spindle Point</u> K62873-35-0053	<u>*N89720-34-0085</u>	<u>ASTM A564-71 Type 630</u>
c. <u>Spring</u> K62858-35-0035	<u>*N89722-0011</u>	<u>ASME SA564 Type 630</u>
d. <u>Bolting</u>		<u>ASTM A304-66 Gr. 4161H</u>
<u>Spindle Ball</u>		
e. <u>Thrust Bearing Adapter</u> K62873-35-0053	<u>N93213-0053</u>	<u>7X00380127</u>
	<u>N93409-32-0055</u>	<u>Stellite #6</u>
<u>Bonnet Stud</u> (I17, BW5) N93207-0633 thru 0644		<u>ASME SA193 Gr. B6</u>
<u>Bonnet Stud Nut</u> (J87) N93210-0853 thru 0864		<u>ASTM A193-71 Gr. B7</u>
<u>Inlet Stud</u> (BW6) N93216-0635 thru 0646		<u>ASME SA193 Gr. B7</u>
<u>Inlet Stud Nut</u> (BW8) N93218-0639 thru 0650		<u>ASTM A193-71 Gr. B7</u>
		<u>ASTM A194-71 Gr. 2H</u>
		<u>ASME SA194 Gr. 2H</u>
<u>Adjusting Bolt Button</u>	<u>N93411-33-0062</u>	<u>ASME SA193 Gr. B6</u>

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

N163790-00-0053

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

43 Kendrick Street, Wrentham, Massachusetts 02093

Design specifications certified by ¹ Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by ¹ W. D. Greenlaw

PE State Massachusetts Reg. No. 14784

¹Signature not required - list name only.

FOR INFORMATION ONLY

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Systems* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 11/21, 1980 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 11/21 1980

Signed John P. Whelan
(Inspector)

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

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

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

2. Plant: Columbia Generating Station

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

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	N63790-03-0057	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.

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: 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.

[Signature] Commissions 74864/7486 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. 2-1702

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
- 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
(type) (mfr's S/N)
d: Construction Code: ASME Sec. III Div. 1 1971 N/A steam 6 x 10 1980
(name/section/division) (edition) (NB#) (service) (size) (yr. built)
1567 & 1711
(Code Cases(s)) (Code Class)
6. ASME Code Section XI applicable for inservice inspection: 1989 N/A N/A
(edition) (addenda) (Code Cases(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 replacement of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

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

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

CERTIFICATE OF INSPECTION

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

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

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: N63790-03-0057

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)

[Signature]
(authorized representative)

Manager, QA
(title)

6/19/00
Date

Carl R. Enos
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. 2-170

FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES
As Required by the Provisions of the ASME Code RulesQuidip Sup 5
S.C. - 440
7/20/60DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02993
Name and Address
- Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A
General Electric Company, 175 Curtner Avenue.,
2. Manufactured For San Jose, CA 95125 Order No. 205-AJ986
Name and Address
3. Owner Washington Public Power Supply System, Richland, Washington 99352
Name and Address
4. Location of Plant Hanford Reservation, Richland, Washington 99352
5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0057 Drawing No. DS-A-63790 Re
Type Safety Relief Orifice Size R Pipe Size — Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Inch — Inch — Inch — Inch —
Power Actuated
6. Set Pressure (psig) 1195 5750 F
Rated Temperature
- Stamped Capacity 899,185 @ 3 Overpressure — Blowdown (nsig) 2 % to —
- Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve)
1100 psig (Body Only)
(Applicable to Valves for Closed Systems Only)
- Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings		
Body	<u>N93183-35-0076</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-35-0039</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. Flange Disc Insert	<u>N93185-34-0089</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-33-0061</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder	<u>*K55484-35-0083</u> <u>*N89714-34-0093</u>	<u>AMS 5662B</u>
Spring Washers	<u>K62856-35-0095</u> <u>K62857-35-0060</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0064</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point	<u>K62873-35-0057</u> <u>*N89720-34-0073</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
c. Spring	<u>K52858-35-0039</u> <u>*N89722-0015</u>	<u>ASTM A304-66 Gr. 4161 H</u>
d. Bolting		
Spindle Ball	<u>K62873-35-0057</u> <u>N93213-0057</u>	<u>7X00380090</u> <u>Stellite #6</u>
e. Thrust Bearing Adapter	<u>N93409-32-0059</u>	<u>ASME SA193 Gr. B6</u>
Bonnet Stud (BW5, I17)	<u>N93207-0681 thru 0692</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut (J87)	<u>N93210-0901 thru 0912</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud (BW6)	<u>N93216-0683 thru 0694</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Inlet Stud Nut (BW8)	<u>N93218-0687 thru 0698</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>

Valve originally built against Crosby order no. 115000, assembly no. 115000. 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. MS RV 4 B
Original nameplate removed and new nameplate attached. Culdrp Sure 3 5
NIC 3790-00-00

CERTIFICATE OF COMPLIANCE

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

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company
Stress analysis report (Class 1 only) on file at Crosby Valve & Gage Company
43 Kendrick Street, Wrentham, Massachusetts 02093
Design specifications certified by ¹ Bovd P. Brooks
PE State California Reg. No. 13655
Stress report certified by ¹ W.D. Greenlaw
PE State Massachusetts Reg. No. 14784
¹Signature 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 John C. Curran Commissions MASS 1266
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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

7X003200001

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

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.

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 N63790-03-0061 (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
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh
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 6-24-00 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]
Inspector's Signature

Commissions

7486 W / 7486 E II

National Board, State, and Endorsements

Date 8-24-00

PLAN No. 2-1703

- 12. Remarks:** See attachment 1.

6/19/00
Date

Carl R. Euse
Inspector's Signature

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: N63790-03-0061

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

11. Description of work:

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

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

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

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

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

were installed in the valve.

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

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

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

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

6/19/00
Date

NWS Technologies, LLC
(repair organization)

Victor Stearns
(authorized representative)

Manager, QA
(title)

6/19/00
Date

Carl R. Evers
Inspector's Signature

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

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

PLAN NO. 2-1703

Revised Sup 5
7/20/50

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 <u>Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02091</u> Name and Address			
Model No. <u>HB-65-SP-FN</u> Order No. <u>N94275</u> Contract Date <u>4/24/79</u> National Board No. <u>N/A</u> General Electric Company, 175 Curtner Ave., 2. Manufactured For <u>San Jose, CA 95125</u> Order No. <u>205-A1986</u> Name and Address			
3. Owner <u>Washington Public Power Supply System, Richland, Washington 99352</u> Name and Address			
4. Location of Plant <u>Sanford Reservation, Richland, Washington 99352</u>			
5. Valve Identification <u>MPI #B22-F013</u> Serial No. <u>N63790-00-0061</u> Drawing No. <u>DS-A-63790 Rev. C</u>			
Type <u>Safety Relief</u> Orifice Size <u>R</u> Pipe Size <u>—</u> Inlet <u>6</u> Outlet <u>10</u> Safety, Safety Relief, Pilot, Inlet Inlet Inlet Inlet Power Actuated			
6. Set Pressure (psig) <u>1205</u> <u>575°</u> F Rated Temperature			
Stamped Capacity <u>906.621</u> @ <u>3</u> 20 Overpressure <u>—</u> Blowdown (psig) <u>25</u> to <u>11X</u>			
Hydrostatic Test (psig) Inlet <u>2320</u> Outlet <u>975</u> psig (Assembled Valve) <u>1100</u> psig (Body Only) (Applicable to Valves for Closed Systems Only)			
Pressure Retaining Pieces			
	Serial No. Identification	Material Specification Including Type or Grade	
a. Bar Stock & Forgings			
Body	<u>N93183-35-0080</u>	<u>ASTM A105-71 Gr. II</u>	
Bonnet	<u>N93407-35-0043</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
b. Disc & Disc Insert	<u>N93185-34-0093</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
Nozzle	<u>N93184-33-0065</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
Disc Holder	<u>K55184-35-0087</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
Spring Washers	<u>K62858-35-0043</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
Adjusting Bolt	<u>N93410-33-0068</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
Spindle Point	<u>K62873-35-0061</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
c. Spring	<u>K62858-35-0043</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
d. Bolting	<u>N93410-33-0068</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
e. Spindle Ball	<u>K62873-35-0061</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
Thrust Bearing Adapter	<u>N93409-32-0063</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
Bonnet Stud	<u>(117, BW5) N93207-0729 thru 0740</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
Bonnet Stud Nut	<u>(187) N93210-0949 thru 0960</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
Inlet Stud	<u>(BW6) N93216-0731 thru 0742</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
Inlet Stud Nut	<u>(BW8) N93218-0735 thru 0745</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
Adjusting Bolt	<u>N93411-33-0070</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	
	<u>K63618-33-0070</u>	<u>ASTM A105-71 Gr. II</u> <u>ASTM A105-71 Gr. II</u>	

MADE IN U.S.A.

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 P. A. Casanova
(N Certificate Holder)

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

symbol expires September 30, 1983.
(Date)

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

Design specifications certified by Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

¹Signature not required - list name only.

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 12-9-80
Signed John E. Gorman Commissions MAB 51266
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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

FOR INFORMATION ONLY

3 4 5 6 7 8 9 10

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**

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.

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 7416W/7416 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
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
(type) (mfr's S/N) (NB#) (service) (size) (yr. built)
d. Construction Code: ASME Sec. III Div. 1 1971 N/A steam 6 x 10 1981
(name/section/division) (edition) (addenda) (Code Cases(s)) (Code Class)
1567 & 1711 1
6. ASME Code Section XI applicable for inservice inspection: 1989 N/A N/A
(edition) (addenda) (Code Case(s))
7. ASME Code Section XI used for repairs, replacements: 1989 N/A N/A
(edition) (addenda) (Code Case(s))
8. Construction Code used for repairs, replacements: 1971 N/A N/A
(edition) (addenda) (Code Case(s))
9. Design responsibilities: N/A
10. Opening pressure: 1185 psig
Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATE OF INSPECTION

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

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

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: N63790-03-0124

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 NWS Technologies, LLC
Date (repair organization)


(authorized representative)

Manager, QA
(title)

6/19/00 Carl R. Emerson
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. 2-1704

Q.C.-44D

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

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093
Name and Address
- Model No. HB-65-BP-FN Order No. N94281 Contract Date 4/24/79 National Board No. N/A
General Electric Company, 175 Curtner Ave.,
2. Manufactured For San Jose, CA 95125 Order No. 205-AJ986
Name and Address
3. Owner Washington Public Power Supply System, Richland, Washington 99352
Name and Address
4. Location of Plant Hanford Reservation, Richland, Washington 99352
5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0124 Drawing No. DS-A-63790 Rev. C
Type Safety Relief Orifice Size R Pipe Size --- Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Inch Inch Inch Inch
Power Actuated
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. Casing Bar Stock & Forgings		
Body	<u>N93183-36-0087</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-36-0098</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. Disc Disc Insert	<u>N93185-37-0156</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-33-0072</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder K55484-31-0005	<u>N89714-31-0008</u>	<u>AMS 5662B</u>
Spring Washers K62858-36-0081	<u>K62856-36-0116</u> <u>K62857-36-0130</u>	<u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0072</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point K62873-37-0136	<u>N89720-43-0157</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
c. Spring K62858-36-0081	<u>NX2689-0126</u>	<u>ASTM A304-66 Gr. 4161H</u>
d. Bolting		
Spindle Ball	<u>N93213-0203</u>	<u>Stoody #6</u>
e. Thrust Bearing Adapter	<u>N93409-32-0065</u>	<u>ASME SA193 Gr. B6</u>
Bonnet Stud (BW19)	<u>N93207-1522 thru 1533</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut (J87)	<u>N93210-1033 thru 1044</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud (BW21)	<u>N93216-1455 thru 1466</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Inlet Stud Nut (BW22)	<u>N93218-1389 thru 1400</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>
Adjusting Bolt Button	<u>N93411-33-0094</u>	<u>ASME SA193 Gr. B6</u>

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

N63790-00-0124

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

43 Kendrick Street, Wrentham, Massachusetts 02093

Design specifications certified by ¹ Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by ¹ W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

¹Signature not required - list name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Systems* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 1/13, 19 81 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 1/13 19 81

Signed John P. Hiron Commissions MASS 1268
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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

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:** 07/20/00**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Sheet:** 1 of 12. **Plant:** Columbia Generating Station**Unit:** Not Applicable**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 993523. **(a) Work Performed By:** 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, 20034. **Identification Of System:** Main Steam (MS) System5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare Valve	Crosby	N63790-03-0136	N/A	N/A	1973	Replaced	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	Replaced	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	Replaced	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.

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.

[Signature] Commissions 7486W/7486 IDS
 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. 2-1705

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 *Quedip Supp 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 N/A steam 6 x 10 1973
HB-65-BP-FN new s/n: N63790-03-0136 (NB#) (service) (size) (yr. built)
(type) (mfr's S/N) (1974 7/25/00) CR
d: Construction Code: ASME Sec. III Div. 1 1971 N/A 1567 & 1711 1
(name/section/division) (edition) (addenda) (Code Cases(s)) (Code Class)
6. ASME Code Section XI applicable for inservice inspection: 1989 N/A N/A
(edition) (addenda) (Code Case(s))
7. ASME Code Section XI used for repairs, replacements: 1989 N/A N/A
(edition) (addenda) (Code Case(s))
8. Construction Code used for repairs, replacements: 1971 N/A N/A
(edition) (addenda) (Code Case(s))
9. Design responsibilities: N/A
10. Opening pressure: 1205 psig
Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

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

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

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

CERTIFICATE OF INSPECTION

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

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

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

FORM NVR-1 Attachment (1 of 1)

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

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

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

Valve S/N: N63790-03-0136

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

11. Description of work:

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

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

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

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

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

were installed in the valve.

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

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

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

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

6/19/00
Date

NWS Technologies, LLC
(repair organization)

Debra L. ...
(authorized representative)

Manager, QA
(title)

6/19/00
Date

Carl R. Emmer
Inspector's Signature

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

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

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

PLAN No. 2-1005

**Q.C.-292, REV. A
SHEET 1 OF 2***Rudip Sup***REPAIR AND REPLACEMENT** 3/10/94
7/20/00
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 |

Fe 2/23/74

CERTIFICATE OF COMPLIANCE

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

Signed

Lawrence J. Pina QA Eng Manager 24 Feb 1994
(Authorized Rep. of Repair Organization) (Title) (Date)**CERTIFICATE OF INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Paul Pella
(Inspector)

Commissions

M41455

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

PLAN No. 2-1705

Buildup Supp
7/20/02

<u>WPPSS S/N</u>	<u>WPPSS Set</u>	<u>Bailly S/N</u>	<u>Bailly Set</u>
N63790-00-0134	1175	N56000-01-0037	1175
N63790-00-0135	1205	N56000-01-0099	1130
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

CROSBYCROSBY VALVE & GAGE COMPANY
WRENTHAM, MASSFORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES
As required by the Provisions of the ASME Code RulesPLAN No. 2-1005
Buildup Sup 5
3/10/84
PLAN No. 2-1705
Buildup Sup 5
Q.C. 4A 7/20/00DATA REPORT
Safety and Safety Relief Valves

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

Pressure Containing or Pressure Retaining Components

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



3-3-75

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

OTHER PARTS

Spindle Ball	<u>N89721-0035</u>	<u>Stellite 6</u>
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BARS & FORGINGS

Thrust Bearing Adapter	<u>N89725-32-0032</u>	<u>ASTM A-193-71 Gr. B6</u> <u>ASME SA-193 Gr. B6</u>
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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]
 (Inspector)

Commissions

N.B. 60.65 190.5. 10.90
 National Board, State, Province and No.



3-3-75

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

Date: 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.

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
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh
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.

[Signature]
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. HB-65-BP-FN old s/n: N63790-00-0137 new s/n: N63790-03-0137
- d. Construction Code: ASME Sec. III Div. 1 1971
6. ASME Code Section XI applicable for inservice inspection:
7. ASME Code Section XI used for repairs, replacements:
8. Construction Code used for repairs, replacements:
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 replacement of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

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

6/19/00 NWS Technologies, LLC
Date 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. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

6/19/00
Date

Carl R. 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: N63790-03-0137

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 N93184-33-007C)

were installed in the valve.

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

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

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

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

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

[Signature]
(authorized representative)

Manager, QA
(title)

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

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

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MA

Part No. 2-1000

O.C.-292.1
SHEET 1 OF 1

Quick Study

42574
1120100

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 02593
(Repair organization's P.O. No., Job No., etc.) NV4000020 (Name and Address)

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 - 1973
(Mfr's Serial No.) (Mfr's 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: Hydraulic (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 sheets or sheets as) 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	N90718	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. _____ conforms to the applicable section of the ASME Code.
(repair/replacement)

Signed Lawrence J. Lee QA Eng Manager 25 Feb 1974
(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 1974 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 1974

Signed Walter C. Bell
(Inspector)

Commissions 1941-1971

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

PLAN No. 2-1706
Rudip Sup^o
7/20/02

<u>WPPSS S/N</u>	<u>WPPSS Set</u>	<u>Bailly S/N</u>	<u>Bailly Set</u>
N63790-00-0134	1175	N56000-01-0037	1175
N63790-00-0135	1205	N56000-01-0099	1130
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 VALVE & GAGE COMPANY
WRENTHAM, MASS

Philip E. ...
4/2
7/24/1

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. BB-65-BP-FN Order No. N-105286 Contract Date 6/28/71
General Electric Company
2. Manufactured For San Jose, California Order No. 205-4D148
Name and Address
3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I.
Name and Address Baileytown, Indiana
4. Location of Plant Baileytown, Indiana
5. Valve Identification MPL #B-22-F013 Serial No. N56000-02-0042 Drawing No. H-56000 Rev. C
- Type Safety Relief Orifice Size R Pipe Size - Inlet 6 Outlet 1
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch
6. Set Pressure (PSIG) 1195 575°
Rated Temperature
- Stamped Capacity 898800 Lbs. Hr. 3 % Overpressure - Blowdown 5%
Sat. Steam
- Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825
7. The material, design, construction and workmanship comply with ASME Code, Section III.
- Class I 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	<u>N89711-32-0024</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Bonnet XXXXXX	<u>N89717-32-0018</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
b. Bar Stock and Forgings		
XXXXXX Disc Insert	<u>N89715-31-0034</u>	<u>ASTM A-461-65 Type 630</u> <u>ASTM A-182-71 F316</u> <u>ASME SA-182 F316</u>
Nozzle	<u>N89713-32-0031</u>	
Disc Holder	<u>N89714-32-0042</u>	<u>AMS 5662 R</u>
Spring Washers	<u>N89724-32-0042</u> <u>N89723-32-0003-</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Adjusting XXXX Bolt	<u>N89726-32-0012</u>	<u>ASTM A-193-71 Gr. B6</u> <u>ASME SA-193 Gr. B6</u>
Spindle Point	<u>N89720-32-0034</u>	<u>ASTM A-564-72 Type 630</u>



3-2-75

	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring	<u>NX2689-0047</u>	<u>ASTM A-304-66 Gr. 4161H</u>
d. Bolting		
e. Other parts of the equipment		
Inlet Stud	<u>N89727-0493 thru 0504</u>	<u>ASTM A-193-71 Gr. B7 ASME SA-193 Gr. B7</u>
Inlet Stud Nut	<u>N89728-0497 thru 0508</u>	<u>ASTM A-194-71 Cl. 2H ASME SA-194 Cl. 2H</u>
Bonnet Stud	<u>N89718-0497 thru 0508</u>	<u>ASTM A-193-71 Gr. B7 ASME SA-193 Gr. B7</u>
Bonnet Stud Nut	<u>N89719-0499 thru 0510</u>	<u>ASTM A-194-71 Cl. 2H ASME SA-194 Cl. 2H</u>
OTHER PARTS		
Spindle Ball	<u>N89721-0034</u>	<u>Stellite 6</u>
BAR & FORGINGS	<u>N89725-31-0009</u>	<u>ASTM A-193-71 Gr. B6 ASME SA-193 Gr. B6</u>

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

Date 10-31 19 73 Signed Crosby Valve & Gage Co. B. [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.

Date October 11 19 73 Factory Mutual Group of Insurance Co.

Donald L. Chinn Commissions N.B. 6665 MASS. 1070
 (Inspector) National Board, State, Province and No.



3-3-75



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: 07/20/00

Sheet: 1 of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: 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	N63790-03-0140	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.

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: 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 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.

[Signature] Commissions 74862/7486 I I
 Inspector's Signature National Board, State, and Endorsements

Date 8-25-00

PLAN NO. 2-1707

CERTIFICATE OF COMPLIANCE

Manager. QA
Title

CERTIFICATE OF INSPECTION

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

The S/N for this valve was N63790-00-0140 ^{01 @ 7/25/00 QRE} 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. Egan
Inspector's Signature

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

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

PLAN No. 2-1707

O.C.-44C-1

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

1. Manufactured by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address of N Certificate Holder)
Model No. HB-65-BP Order No. NV4000468 Contract Date 24 JAN 1994 National Board No.
2. Manufactured for WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WA Order No. 238136 C/N 02
(Name and Address)
3. Owner WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WA
(Name and Address)
4. Location of Plant HANFORD # 2
5. Valve Identification B22-F013 Serial No. N63790-01-0140 Drawing No. DS-A-63790-1 REV 0
Type MAIN STEAM Orifice Size 4.532 Pipe Size Inlet 6 Outlet 10
(Safety, Safety Relief, Pilot, Power Actuated) (Inch) (Inch) (Inch) (Inch)
6. Set Pressure 1165.0 585
Rated Temperature
Stamped Capacity 876878 LB./HR. SAT. STM. @ 3 % Overpressure = Blowdown (psig) 2 THRU 11
Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 1100
7. The material, design, construction and workmanship comply with ASME Code, Section III.
Class 1 Edition 1971, Addenda Date NO Case No.

	Serial No. Identification	Material Specification Including Type or Grade
a. Castings		
Body	<u>N93183-47-0130</u>	<u>ASTM A105 GR. II</u>
Bonnet	<u>N93407-47-0058</u>	<u>ASTM A105 GR. II</u>
b. Bar Stock & Forgings		
Support Rods	<u> </u>	<u> </u>
Nozzle	<u>N93184-53-0167</u>	<u>ASME SA182 GR. F316</u>
Disc	<u>N93185-52-0204</u>	<u>ASME SA637 GR. 718</u>
	<u>N93186-41-0060</u>	
Spring Washers	<u>N93187-40-0007</u>	<u>ASTM A105 GR. II</u>
Adjusting Bolt	<u>N93410-33-0007</u>	<u>ASME SA193 GR. B6</u>
Spindle	<u>N96461-34-0015</u>	<u>ASTM A564 TYPE 630</u>
c. Spring	<u>NX2689-0138</u>	<u>ASTM A304 GR. 4161 H</u>
d. Bolting	<u> </u>	<u> </u>
e. Other Pieces		
DISC HOLDER	<u>N89714-42-0279</u>	<u>AMS5662B (INCONEL 718)</u>
SPINDLE BALL	<u>N96460</u>	<u>ASTM A276 T440C</u>
ADJ BOLT BUTTON	<u>N93411-36-0015</u>	<u>ASME SA193 GR. B6</u>
THRUST BEARING ADAPTER	<u>N93409-35-0012</u>	<u>ASTM A193 GR. B6</u>
BONNET STUD	<u>N93207</u>	<u>ASTM A193 GR. B7</u>
BONNET NUT	<u>N93210</u>	<u>ASME SA194 CL. 2H</u>
INLET STUD	<u>N93216</u>	<u>ASTM A193 GR. B7</u>
INLET NUT	<u>N93218</u>	<u>ASTM A194 CL. 2H</u>

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

Date 27 May 94 Signed Crosby Valve & Gage Company by Lawrence J. Ruiz
 Manufacturer

Certificate of Authorization No. 1878 expires 30 SEP 95

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Arkwright-Boston Manufacturers Mutual Insurance Company have inspected the equipment described in this Data Report on May 27, 1994 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III

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

Factory Mutual System

Date 5/27, 1994

Signed William P. Gell
 (Inspector)

Commissions MA 1455
 (Nat'l. Bd., State, Prov. and No.)

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

2. **Plant:** Columbia Generating Station

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

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

Date: 07/10/01

Sheet: 1 Of 1

Unit: Not Applicable

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

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

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

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

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

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

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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001B MS-RV-4B MS-RV-4B	WPPSS * Crosby Crosby	B22-G001B-P1 N63790-00-0058 N63790-03-0137 ** (N63790-00-0137) **	N/A N/A N/A	N/A N/A N/A	1983 1980 1973	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing relief valve MS-RV-4B. The replacement work was performed as follows:

- 1) Removed existing relief valve Serial No N63790-00-0058 with set pressure of 1195 Psig at rated temperature of 575° F.
- 2) Performed VT-1 visual examination on twelve (12) new nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
- 3) Installed replacement relief valve with Serial No N63790-03-0137 with set pressure of 1195 Psig at rated temperature of 575° F.
- 4) Installed VT-1 visually examined twelve (12) new nuts for the relief valve inlet joint. Note - None of the existing nuts were reused.
- 5) Installed sixteen (16) new bolts for the relief valve outlet joint. Note - None of the existing bolts were reused.
- 6) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the relief valve inlet joint. No evidence of leakage during the pressure test.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement relief valve Serial No N63790-03-0137 was installed is Main Steam (MS) piping system B22-G001B-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0137 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) ** The replacement relief valve Serial No N63790-00-0137 was previously modified (upgraded) to Serial No N63790-03-0137 by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29301. The modification (upgrading) work was performed in accordance with NWS Technologies, LLC VR and NR programs and is documented in ASME Section XI Plan No 2-1706.

ENERGY NORTHWEST

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

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

9. Remarks: 1) See attached NVR-1 Code Data Report for replacement relief valve Serial No N63790-03-0137, 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
 Kuldip Singh - Program Lead Engineer (PLE)

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

Date 7/10/01

Date 7/10/01

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 1-24-01 to 7-24-01 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

A. M. Furt
 Inspector's Signature

Commissions 74864/7486 NIS ES
 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
- 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 new s/n: N63790-03-0137 N/A steam 6 x 10
HB-65-BP-FN (type) (mfr's S/N) (NB#) (service) (size) 1973 1984
 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 replacement of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

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

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

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

CERTIFICATE OF INSPECTION

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

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification or replacement described in this report. Furthermore, neither the undersigned 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)

[Signature]
(authorized representative)

Manager, QA
(title)

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

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

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

PLAN No. 2-1000

Quincy, Supb
4/25/84
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 02593
(Name and Address)
(Repair organization's P.O. No., Job No., etc.) NV40000202. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0962
(Name and Address)3. Name and Identification of Nuclear Power Plant HANFORD #24. Address of Nuclear Power Plant RICHLAND, WA5. a. Identifying Nos. N63790-00-0137 - - - - - 1973
(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)
b. Identification of component repaired or replacement component -
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY6. Tests conducted: Hydrostatic (X) Pneumatic () Design Pressure () Pressure 2370.0 psi7. Identification of System MAIN STEAM8. Applicable Section(s) III of ASME Code, 19-71 EditionAddenda NQ

Code Case -

9. Description of work N56000-02-0042 WAS MODIFIED TO N63790-00-0137

(Use of additional sheets or sketches 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

L. H. H. H.

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 Laurance J. Davis QA Eng. Manager 25 Feb. 1974
(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, 1974 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 1974Signed W. H. T. G. H.
(Inspector)Commissions 1041137

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

PLAN No. 2-1708

~~PLAN No. 2-1006~~



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

Philip Supp
4/24/72
7/19/01

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

- Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
Name and Address
- Model No. HB-65-BP-FN Order No. N-105286 Contract Date 6/28/71
General Electric Company
- Manufactured For San Jose, California Order No. 205-AD148
Name and Address
- Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I.
Name and Address Baileytown, Indiana
- Location of Plant Baileytown, Indiana
- Valve Identification MPL #B-22-F013 Serial No. N56000-02-0042 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
- Set Pressure (PSIG) 1195 575°
Rated Temperature F
- Stamped Capacity 898800 Lbs. Hr. 3 % Overpressure -- Blowdown 5%
Sat. Steam
- Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class I 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	<u>N89711-32-0024</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Bonnet XXXXXX	<u>N89717-32-0018</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
b. Bar Stock and Forgings		
XXXXXX Disc Insert	<u>N89715-31-0034</u>	<u>ASTM A-461-65 Type 530</u> <u>ASTM A-182-71 F316</u> <u>ASME SA-182 F316</u>
Nozzle	<u>N89713-32-0031</u>	
Disc Holder	<u>N89714-32-0042</u>	<u>AMS 5662 R</u> <u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Spring Washers	<u>N89724-32-0042</u> <u>N89723-32-0003-</u>	<u>ASTM A-193-71 Gr. B6</u> <u>ASME SA-193 Gr. B6</u>
Adjusting XXXX Bolt	<u>N89726-32-0012</u>	
Spindle Point	<u>N89720-32-0034</u>	<u>ASTM A-564-72 Type 630</u>



3-2-75

	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring	<u>NX2689-0047</u>	<u>ASTM A-304-66 Gr. 4161H</u>
d. Bolting		
e. Other Assembly Components		
Inlet Stud	<u>N89727-0493 thru 0504</u>	<u>ASTM A-193-71 Gr. B7</u> <u>ASME SA-193 Gr. B7</u>
Inlet Stud Nut	<u>N89728-0497 thru 0508</u>	<u>ASTM A-194-71 Cl. 2H</u> <u>ASME SA-194 Cl. 2H</u>
Bonnet Stud	<u>N89718-0497 thru 0508</u>	<u>ASTM A-193-71 Gr. B7</u> <u>ASME SA-193 Gr. B7</u>
Bonnet Stud Nut	<u>N89719-0499 thru 0510</u>	<u>ASTM A-194-71 Cl. 2H</u> <u>ASME SA-194 Cl. 2H</u>

OTHER PARTS

Spindle Ball	<u>N89721-0034</u>	<u>Stellite 6</u>
BARS & FORGINGS	<u>N89725-31-0009</u>	<u>ASTM A-193-71 Gr. B6</u> <u>ASME SA-193 Gr. B6</u>

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

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

Certificate of Authorization No. 331 expires November 9, 1974

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of MASS. and employed by Mutual Boiler & Machinery Insurance Co., Waltham, Mass. have inspected the equipment described in this Data Report on October 31, 1973 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

Date October 31 19 73

Arnold L. Chinn Commissioners H.R. 6645 Mass. 107C
 (Inspector) National Board, State, Province and No.



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