

ENERGY NORTHWEST

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

September 16, 2003
GO2-03-147

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397;
INSERVICE INSPECTION SUMMARY REPORT FOR REFUELING
OUTAGE R-16**

Dear Sir or Madam:

The Columbia Generating Station Inservice Inspection Summary Report for the R-16 Maintenance and Refueling Outage 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 Data Report for inservice inspection and NIS-2 Owner's Reports for repairs and replacements are included.

If you have any questions or desire additional information regarding this matter, please contact Ms. CL Perino at (509) 377-2075.

Respectfully,

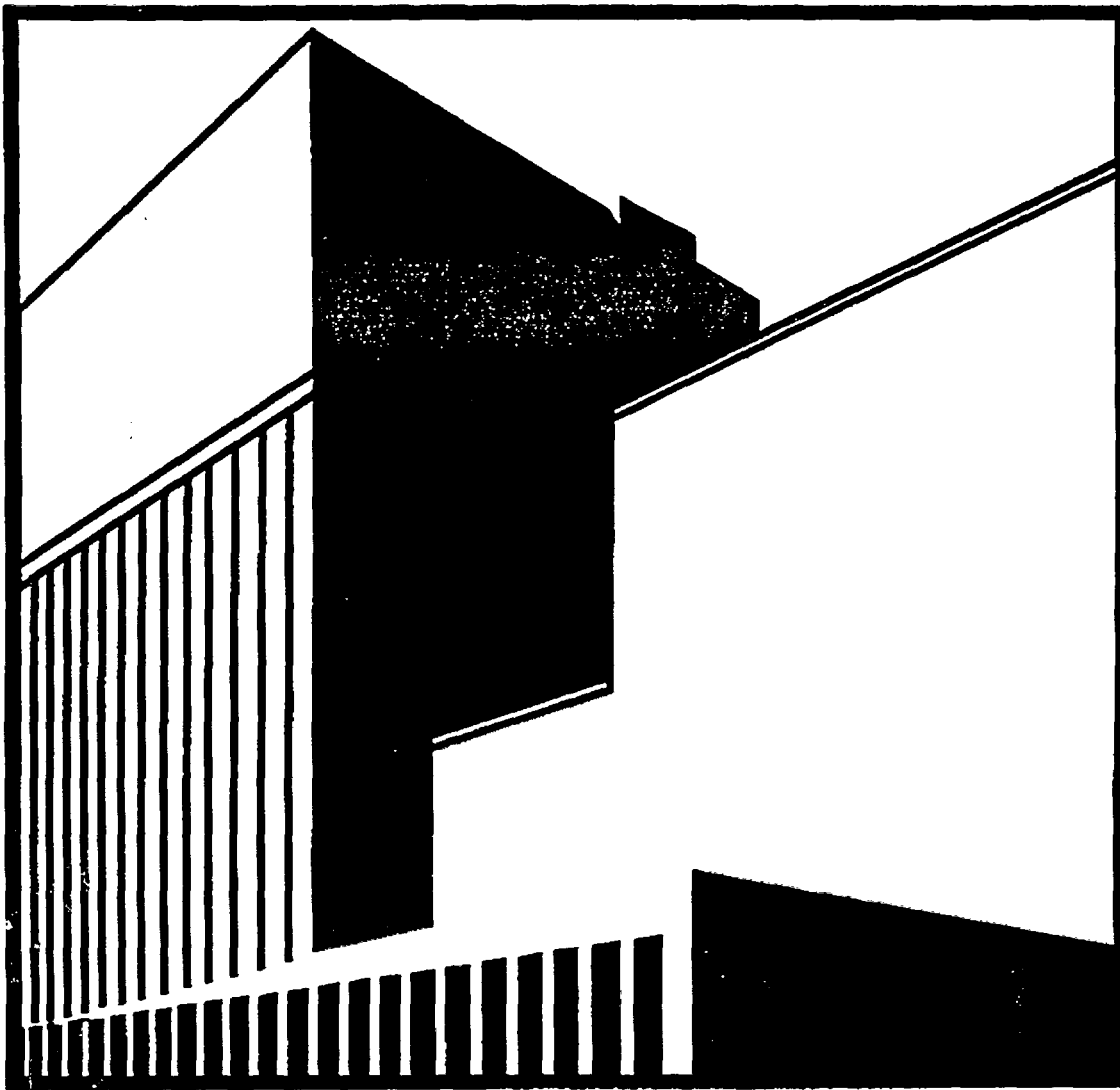


DK Atkinson
Vice President, Technical Services
Mail Drop PE08

Enclosure

cc: TP Gwynn - NRC - RIV
BJ Benney - NRC - NRR w/o
NRC Sr. Resident Inspector - 988C
RN Sherman - BPA/1399 w/o

A047



COLUMBIA GENERATING STATION
INSERVICE INSPECTION
SUMMARY REPORT
FOR REFUELING OUTAGE
R16

Spring, 2003



**ENERGY
NORTHWEST**
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INSERVICE INSPECTION SUMMARY REPORT
FOR
REFUELING OUTAGE R16

OWNER: Energy Northwest
Columbia Generating Station
North Power Plant Loop
Richland, Washington 99352


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

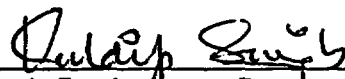
COMMERCIAL SERVICE DATE: December 13, 1984

CAPACITY: 3486 Megawatts Thermal


REACTOR PRESSURE VESSEL: Manufacturer: CBIN
State No.: 29936-84W

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

Prepared By:  8/21/03
ISI Engineer Date

 8/21/03
Repair Replacement Program Lead Engineer Date

Reviewed & Concurred By:  8/22/03
NDE Lead Date

By:  8/21/03
ISI Engineer's Supervisor Date

Concurrence:  8/22/03
Authorized Nuclear Inservice Inspector Date

SUMMARY

Columbia Generating Station has completed American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME) Section XI examinations for the sixteenth (16) refueling outage. Examinations in accordance with Boiling Water Reactor Vessel Internals Project (BWRVIP) inspections and evaluation guides were also completed during this outage.

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 July 3, 2001 and June 27, 2003. Both General Electric (GE) and Energy Northwest personnel performed the examinations. During this period, Columbia Generating Station completed its sixteenth scheduled refueling outage, R16. This outage is the seventh 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.

- RPV Feedwater sparger flow holes
- Certain BWRVIP inspections
- Control rod blades in accordance with GE RICSIL No. 084

ASME SECTION XI EXAMINATIONS

The ASME Section XI examinations performed during the sixteenth 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.

COMPONENTS RECEIVING LESS THAN 90% CODE COVERAGE

The following components received less than 90% Code examination coverage.

Identification No.	Description	Method	Percent Coverage	Existing Relief Request	Notes
MSH-29(W)	Component Support Attach. Weld	VT-3	65	No	
MSH-30(W)	Component Support Attach. Weld	VT-3	75	No	
MSH-42	Rigid Support	VT-3	80	No	
SW-123(W)	Component Support Attach. Weld	VT-3	50	2ISI-10	Meets relief request requirements
DA	Bottom Head Meridian Weld	UT	72	2ISI-01	Examined 44" of weld instead of 45"
DB	Bottom Head Meridian Weld	UT	72	2ISI-01	Examined 44" of weld instead of 45"
DC	Bottom Head Meridian Weld	UT	72	2ISI-01	Examined 44" of weld instead of 45"
DD	Bottom Head Meridian Weld	UT	72	2ISI-01	Examined 44" of weld instead of 45"
DE	Bottom Head Meridian Weld	UT	72	2ISI-01	Examined 44" of weld instead of 45"
DF	Bottom Head Meridian Weld	UT	72	2ISI-01	Examined 44" of weld instead of 45"
DG	Bottom Head Dollar Weld	UT	19	2ISI-01	Examined 22" same as R8
DR	Bottom Head Dollar Weld	UT	19	2ISI-01	Examined 22" same as R8

AUGMENTED EXAMINATIONS

RPV Feedwater Nozzle Inner Radius (ISI Program Plan Section 6.2.3)

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 and R15. 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.

RPV 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. All testing results were acceptable. 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. Previous wear on wedges was examined along with adjusting screw to jet pump gaps. Engineering evaluation determined that all identified conditions were acceptable.

During R15 (2001) cracks were found in some Duralife control rod blades (CRB) that were near their end of life (EOL) exposure. Engineering analysis determined they were acceptable for continued operation until their EOL was reached. During R16 (2003) Duralife CRBs near EOL exposure and all blades with cracking observed in R15 (2001) were discharged from the core and examined per the guidance of GE RICSIL 084 dated May 12, 2001. No cracks were found that exceeded the acceptance criteria, which confirmed the analysis, performed at R15 (2001).

REPAIRS AND REPLACEMENTS

Seven (7) significant ASME Section XI repair or replacement activities were performed during the R16 outage 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 July 3, 2001 and June 27, 2003 are provided in Appendix B.

1) Main Steam Relief Valves (MSRV's)

Modified five (5) spare nozzles. Refurbished five (5) 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 five (5) main steam relief valves.

2) Main Steam Isolation Valve (MSIV)

Replaced main disc, pilot disc and weld repaired the bore ID for valve MS-V-22A.

3) Relief Valves

Replaced miscellaneous relief valves such as SLC-RV-29A, SLC-RV-29B, RHR-RV-25B, RCIC-RV-17, FPC-RV-117A, FPC-RV-117B, RCC-RV-34A, RCC-RV-34B, SW-RV-1A, SW-RV-1B, etc.

4) Valves

Replaced miscellaneous valves such as PI-V-X269, RCIC-PCV-15, RCIC-V-24, RCIC-V-25, RCIC-V-54, RRC-V-20, RFW-V-45B, MS-V-67A, MSLC-V-2D, etc.

5) Service Water (SW) System

Performed the following work on the Service Water (SW) System:

Repaired wasted surfaces for valves SW-V-12A and SW-V-12B. Replaced 18" pipe piece near valves SW-V-12A and SW-V-12B. Replaced 18" pipe piece near restricting orifice SW-RO-2A. Replaced SW supply and return piping to RHR-HX-2A. Replaced SW supply piping to CAC-HR-1B. Replaced SW return piping from CAC-HR-1A.

6) Control Rod Drive (CRD) Assemblies

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

Overhauled eleven (11) Control Rod Drive (CRD) assemblies. Replaced fifteen (15) Control Rod Drive (CRD) assemblies with these overhauled ones plus 4 that had been previously overhauled. Installed replacement cap screws for all fifteen (15) Control Rod Drive (CRD) assemblies bolted flanged connections - Eight (8) cap screws for each bolted flanged connection.

7) Supports

Replaced three (3) snubbers. Replaced snubbers with rigid struts for twenty five (25) supports.

APPENDIX A

NIS-1 Owner's Report for Inservice Inspection

1.	Owner: Energy Northwest, Columbia Generating Station, North Power Plant Loop, Richland, Washington 99352
2.	Plant: Columbia Generating Station, North Power Plant Loop, Richland, Washington
3.	Plant Unit: Columbia Generating Station
4.	Owner Certificate of Authorization: NA
5.	Commercial Service Date: 12/13/84
6.	National Board Number: NA
7.	Components Inspected

[illegible]

FORM NIS-1 (back)

8. Examination Dates 7/3/01 to 6/27/03
9. Inspection Period Identification 3 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 15
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 83% of the examinations required for this interval have been completed. See pages 3-14 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) A number of ASME Code Class 3 Standby Service Water (SW) component supports around the SW spray ponds were found with various degrees of corrosion. The examination population was expanded to include all component supports around the spray ponds.
15. Abstract of Corrective Measures:
1) An engineering evaluation was performed that determined that the corrosion did not affect the function or operability of the supports.

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 8/21/03 Signed Energy Northwest By Tom Quinn
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 Hartford Steam Boiler of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Data Report during the period 7/3/01 to 6/27/03, 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.

Inspector's Signature [Signature]

Date 8/21/03

Commissions 7486W/7486 NINS
National Board, State, Province, and Endorsements

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
DE-2838-18	UA	PSA-1/4	434	5/21/03
EDR-903N	SOUTH	PSA-1/2	4003	5/13/03
FPC-908N	WEST	PSA-1	22348	5/13/03
MS-1002N	SOUTH	PSA-10	9946	5/14/03
MS-1368-13	UA	PSA-1/2	2470	5/17/03
MSRV-1D-3	UA	PSA-10	10931	5/15/03
MSRV-2A-2	UA	PSA-10	702	5/15/03
MSRV-2B-3	UA	PSA-35	10729	5/19/03
MSRV-4A-2	UA	PSA-10	694	5/19/03
MS-SC-2	UA	PSA-100	607	5/19/03
RCIC-1	UA	PSA-1	587	5/12/03
RCIC-1490-13	UA	PSA-1/2	2523	5/12/03
RCIC-1C-9	UA	PSA-10	7786	5/16/03
RCIC-971N	UA	PSA-1	603	5/13/03
RFW-151	UA	PSA-35	10732	5/16/03
RHR-244	UA	PSA-35	12713	5/14/03
RHR-274	UA	PSA-3	2590	5/13/03
RHR-311	EAST	PSA-3	2367	5/12/03
RHR-334	UA	PSA-1/4	6219	5/13/03
RHR-357	UA	PSA-10	9951	5/13/03
RHR-39	SOUTH	PSA-3	4429	5/12/03
RHR-463	UA	PSA-3	2391	5/14/03
RHR-465	NORTH	PSA-3	1069	5/14/03
RHR-494	UA	PSA-10	13034	5/20/03
RHR-551	WEST	PSA-3	3914	5/13/03
RHR-901N	NORTH	PSA-3	265	5/20/03
RHR-903N	UA	PSA-3	3926	5/14/03
RHR-954N	WEST	PSA-1	125	5/12/03
RHR-974N	UA	PSA-3	4457	5/21/03
RHR-980N	UA	PSA-10	11850	5/13/03
RHR-SA-52	UA	PSA-10	9852	5/17/03
RHR-SA-53	UA	PSA-10	113	5/15/03
RWCU-1C-17	SE	PSA-1	582	5/15/03
RWCU-1C-8	UA	PSA-3	2587	5/17/03
SGT-11	BOT	PSA-10	7787	5/12/03
SW-124	NORTH	PSA-35	7037	5/13/03
SW-29	NE	PSA-10	4869	5/12/03

KEY

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

Notes to snubber functional testing

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

FORM NIS-1 (Continued)

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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.	Pg.	Method	Report No.	Date	Results(1)
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Examination Category B-A
Item Number B1.21

AJ	BOT HD DOL WELD	RPV-102		VOL	R16-105	5/24/03	A
DG	BOT HD DOL /270	RPV-102		VOL	R16-113	5/23/03	A
DR	BOT HD DOL / 90	RPV-102		VOL	R16-120	5/23/03	A

Item Number B1.22

DA	BOT HD MRD @272	RPV-102		VOL	R16-107	5/22/03	A
DB	BOT HD MRD @332	RPV-102		VOL	R16-108	5/22/03	A
DC	BOT HD MRD @ 32	RPV-102		VOL	R16-109	5/23/03	A
DD	BOT HD MRD @ 92	RPV-102		VOL	R16-110	5/24/03	A
DE	BOT HD MRD @152	RPV-102		VOL	R16-111	5/24/03	A
DF	BOT HD MRD @212	RPV-102		VOL	R16-112	5/25/03	A
DH	TOP HD MRD @15	RPV-102		VOL	R16-114	5/21/03	A
DJ	TOP HD MRD @75	RPV-102		VOL	R16-115	5/21/03	A
DK	TOP HD MRD @135	RPV-102		VOL	R16-116	5/22/03	A
DM	TOP HD MRD @195	RPV-102		VOL	R16-117	5/21/03	A
DN	TOP HD MRD @255	RPV-102		VOL	R16-118	5/20/03	A
DP	TOP HD MRD @315	RPV-102		VOL	R16-119	5/20/03	A

Item Number B1.40

AG	TOP HD-FLG WELD	RPV-102		SUR	2RPM-009	5/21/03	A
AG	TOP HD-FLG WELD	RPV-102		VOL	R16-104	5/22/03	A

Examination Category B-F
Item Number B5.130

12RHR(1)A-14	VALVE TO SE	RHR-105		SUR	2RHP-008	5/14/03	A
4RRC(4)B-12	SE TO VALVE	RRC-109		SUR	2RRP-016	5/20/03	A

Examination Category B-G-1
Item Number B6.10

RPV NUT 36-1-6A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-6A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-6A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-6A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-13A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-13A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-13A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-13A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-20A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-20A	RPV NUT	RPV-101		VOL	2RPU-014	5/15/03	A
RPV NUT 36-1-20A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-20A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-27A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-27A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-27A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-27A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-34A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-34A	RPV NUT	RPV-101		VOL	2RPU-013	3/16/03	A
RPV NUT 36-1-34A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-34A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-41A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A

Notes are on page 14

FORM NIS-1 (Continued)

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

13. Abstract of Examinations and Tests (continued):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
RPV NUT 36-1-41A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-41A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-41A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-48A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-48A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-48A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-48A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-54A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-54A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-54A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-54A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-56A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-56A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-56A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-56A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-61A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-61A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-61A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-61A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-62A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-62A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-62A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-62A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-68A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-68A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-68A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-68A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-69A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-69A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-69A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-69A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-75A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-75A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-75A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-75A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A
RPV NUT 36-1-76A	RPV NUT	RPV-101		SUR	2RPM-007	5/16/03	A
RPV NUT 36-1-76A	RPV NUT	RPV-101		VOL	2RPU-012	5/16/03	A
RPV NUT 36-1-76A	RPV NUT	RPV-101		VOL	2RPU-013	5/16/03	A
RPV NUT 36-1-76A	RPV NUT	RPV-101		VOL	2RPU-014	5/16/03	A

Item Number B6.210

RRC-V-60B-BLT	VALVE STUD	RRC-102	02	VOL	R16-238	5/19/03	A
RRC-V-60B-BLT	VALVE STUD	RRC-102	02	VT-1	2RRV-007	5/19/03	A

Item Number B6.230

RRC-V-60B-NUT/WASH	VALVE NUTS, WASH	RRC-102		VT-1	2RRV-008	5/19/03	A
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Item Number B6.30

RPV STUD 35-1-6A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-7A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-13A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-14A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-20A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-21A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	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.	Pg.	Method	Report No.	Date	Rslts (1)
RPV STUD 35-1-27A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-28A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-34A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-35A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-41A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-42A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-47A	RPV STUD	RPV-101		VOL	R16-248	5/14/03	A
RPV STUD 35-1-48A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-49A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-54A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-55A	RPV STUD	RPV-101		SUR	2RPM-008	5/18/03	A
RPV STUD 35-1-55A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-56A	RPV STUD	RPV-101		SUR	2RPM-008	5/18/03	A
RPV STUD 35-1-56A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-61A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-62A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-63A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-68A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-69A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-70A	RPV STUD	RPV-101		VOL	R16-248	5/15/03	A
RPV STUD 35-1-75A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A
RPV STUD 35-1-76A	RPV STUD	RPV-101		VOL	R16-248	5/10/03	A

Item Number B6.50

RPV WASHER 35-1-6A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-13A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-20A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-27A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-34A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-41A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-47A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-48A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-54A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-55A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-61A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-62A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-68A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-69A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-75A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A
RPV WASHER 35-1-76A	RPV WASHER	RPV-101		VT-1	2RPV-019	5/16/03	A

Examination Category B-G-2

Item Number B7.50

4RWCU(3)-48D	FLANGE BOLTING	RWCU-101	02	VT-1	2RTV-005	5/23/03	A
4RWCU(3)-10BD	FLANGE BOLTING	RWCU-101	02	VT-1	2RTV-007	5/23/03	A

Item Number B7.70

MS-V-22B-BLT	VALVE BOLTING	MS-102	02	VT-1	2MSV-142	5/15/03	A
MS-V-28B-BLT	VALVE BOLTING	MS-102	02	VT-1	2MSV-147	5/26/03	A
MS-V-22C-BLT	VALVE BOLTING	MS-103	02	VT-1	2MSV-143	5/15/03	A
MS-V-28C-BLT	VALVE BOLTING	MS-103	02	VT-1	2MSV-148	5/26/03	A
RCIC-V-63-BLT	VALVE BOLTING	RCIC-101	01	VT-1	2RIV-011	5/12/03	A
RHR-V-112A-BLT	VALVE BOLTING	RHR-105		VT-1	2RHV-023	5/15/03	A
RHR-V-112B-BLT	VALVE BOLTING	RHR-106		VT-1	2RHV-022	5/15/03	A

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1. Owner: Energy Northwest, 8000 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-V-23B-BLT	VALVE BOLTING	RRC-102	01	VT-1	2RRV-009	5/21/03	A
RWCU-V-100-BLT	VALVE BOLTING	RWCU-101	02	VT-1	2RTV-006	5/23/03	A
RWCU-V-4-BLT	VALVE BOLTING	RWCU-101	05	VT-1	2RTV-009	6/4/03	A

Examination Category B-H
Item Number B8.10

CG	SKIRT KNUCKLE	RPV-101		SUR	2RPM-010	5/21/03	A
CG	SKIRT KNUCKLE	RPV-101		SUR	2RPM-011	5/22/03	A

Examination Category B-J
Item Number B9.11

12HPCS(1)-19	PIPE TO ELL	HPCS-101	02	VOL	R16-012	5/13/03	A
26MS(1)B-16	PIPE TO VALVE	MS-102	02	VOL	R16-070	5/16/03	A
26MS(1)C-16	PIPE TO VALVE	MS-103	02	VOL	R16-073	5/14/03	A
10RCIC(12)-9	PIPE TO ELL	RCIC-101	01	VOL	R16-011	5/13/03	A
10RCIC(12)-10	ELL TO PIPE	RCIC-101	01	VOL	R16-001	5/16/03	A
10RCIC(12)-10A	PIPE TO PIPE	RCIC-101	01	VOL	R16-002	5/12/03	A
10RCIC(12)-12	TEE TO PIPE	RCIC-101	01	VOL	R16-004	5/12/03	A
10RCIC(12)-13	PIPE TO ELL	RCIC-101	01	VOL	R16-005	5/12/03	A
10RCIC(12)-14	ELL TO PIPE	RCIC-101	01	VOL	R16-006	5/12/03	A
5RFW(1)A-2	SLEEVE TO WOL	RFW-101	01	VOL	R16-090	5/25/03	A
12RFW(1)AC-9	ELL TO PIPE	RFW-101	05	VOL	R16-015	5/12/03	A
12RFW(1)AB-7	ELL TO PIPE	RFW-101	04	VOL	R16-014	5/12/03	A
12RFW(1)AA-7	ELL TO PIPE	RFW-101	03	VOL	R16-013	5/12/03	A
12RHR(1)A-1D	VALVE TO PIPE	RHR-105		VOL	R16-018	5/5/03	A
12RHR(1)A-2	PIPE TO ELL	RHR-105		VOL	R16-019	5/5/03	A
12RHR(1)A-3	ELL TO PIPE	RHR-105		VOL	R16-020	5/5/03	A
12RHR(1)A-4	PIPE TO ELL	RHR-105		VOL	R16-022	5/5/03	A
12RHR(1)A-5	ELL TO PEN	RHR-105		VOL	R16-023	5/5/03	A
12RHR(1)A-6	PEN TO PIPE	RHR-105		VOL	R16-024	5/14/03	A
12RHR(1)A-13	PIPE TO VALVE	RHR-105		VOL	R16-016	5/14/03	A
12RHR(1)B-12	ELL TO PIPE	RHR-106		VOL	R16-025	5/15/03	A
12RHR(1)B-13	PIPE TO VLV	RHR-106		VOL	R16-026	5/15/03	A
24RRC(2)B-7	ELL TO VALVE	RRC-102	01	VOL	R16-065	5/21/03	A
24RRC(2)B-8	VALVE TO PIPE	RRC-102	01	VOL	R16-066	5/21/03	A
24RRC(2)B-9	PIPE TO ELL	RRC-102	01	VOL	R16-069	5/21/03	A
24RRC(2)B-10	ELL TO PUMP	RRC-102	01	VOL	R16-064	5/21/03	A
24RRC(1)B-11	PUMP TO PIPE	RRC-102	02	VOL	R16-057	5/19/03	A
24RRC(1)B-12	PIPE TO VALVE	RRC-102	02	VOL	R16-060	5/19/03	A
24RRC(1)B-15	ELL TO PIPE	RRC-102	02	VOL	R16-061	5/19/03	A
24RRC(1)B-16	PIPE TO VALVE	RRC-102	02	VOL	R16-062	5/19/03	A
24RRC(1)B-17	VALVE TO ELL	RRC-102	02	VOL	R16-063	5/21/03	A
6RWCU(3)-20	PIPE TO VALVE	RWCU-101	04	VOL	R16-097	5/23/03	A
6RWCU(3)-21	VALVE TO PIPE	RWCU-101	05	VOL	R16-098	5/23/03	A
6RWCU(3)-22	PIPE TO PENE	RWCU-101	05	VOL	R16-099	5/23/03	A

Item Number B9.31

24RRC(2)B-8/4RRC(8)-4S	PIPE TO SWL	RRC-102	01	VOL	R16-068	5/21/03	A
24RRC(2)B-8/4RRC(4)-4S	PIPE TO SWL	RRC-102	01	VOL	R16-067	5/21/03	A
24RRC(1)B-11/4RRC(8)-4S	PIPE TO SWL	RRC-102	02	VOL	R16-058	5/19/03	A

Item Number B9.40

5RFW(1)A-1	SLEEVE-SLEEVE	RFW-101	01	SUR	2FWM-018	5/26/03	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.	Pg.	Method	Report No.	Date	Rsults(1)
Examination Category B-K-1 Item Number B10.10							
LPCS-13(W)	4 WELDED LUGS	LPCS-101	01	SUR	2LPM-013	4/29/03	A
Examination Category B-M-2 Item Number B12.50							
MS-V-22A-BDY	VALVE BODY	MS-101	02	VT-3	2MSV-149	6/19/03	A
RWCU-V-4-BDY	VALVE BODY	RWCU-101	05	VT-3	2RTV-008	6/3/03	A
Examination Category B-P Item Number B15.10							
RPV-PB-101(L)	LK PRES BNDRY	RPV-101		VT-2	OSP-RPV-R801	6/11/03	A
RPV-PB-102(L)	LK PRES BNDRY	RPV-102		VT-2	OSP-RPV-R801	6/11/03	A
Item Number B15.50							
HPCS-PB-101(L)	LK PRES BNDRY	HPCS-101		VT-2	OSP-RPV-R801	6/11/03	A
LPCS-PB-101(L)	LK PRES BNDRY	LPCS-101		VT-2	OSP-RPV-R801	6/11/03	A
MS-PB-101(L)	LK PRES BNDRY	MS-101		VT-2	OSP-RPV-R801	6/11/03	A
MS-PB-102(L)	LK PRES BNDRY	MS-102		VT-2	OSP-RPV-R801	6/11/03	A
MS-PB-103(L)	LK PRES BNDRY	MS-103		VT-2	OSP-RPV-R801	6/11/03	A
MS-PB-104(L)	LK PRES BNDRY	MS-104		VT-2	OSP-RPV-R801	6/11/03	A
MS-PB-105(L)	LK PRES BNDRY	MS-105		VT-2	OSP-RPV-R801	6/11/03	A
MS-PB-106(L)	LK PRES BNDRY	MS-106		VT-2	OSP-RPV-R801	6/11/03	A
RCIC-PB-101(L)	LK PRES BNDRY	RCIC-101		VT-2	OSP-RPV-R801	6/11/03	A
RCIC-PB-102(L)	LK PRES BNDRY	RCIC-102		VT-2	OSP-RPV-R801	6/11/03	A
RFW-PB-101(L)	LK PRES BNDRY	RFW-101		VT-2	OSP-RPV-R801	6/11/03	A
RFW-PB-102(L)	LK PRES BNDRY	RFW-102		VT-2	OSP-RPV-R801	6/11/03	A
RHR-PB-101(L)	LK PRES BNDRY	RHR-101		VT-2	OSP-RPV-R801	6/11/03	A
RHR-PB-102(L)	LK PRES BNDRY	RHR-102		VT-2	OSP-RPV-R801	6/11/03	A
RHR-PB-103(L)	LK PRES BNDRY	RHR-103		VT-2	OSP-RPV-R801	6/11/03	A
RHR-PB-104(L)	LK PRES BNDRY	RHR-104		VT-2	OSP-RPV-R801	6/11/03	A
RHR-PB-105(L)	LK PRES BNDRY	RHR-105		VT-2	OSP-RPV-R801	6/11/03	A
RHR-PB-106(L)	LK PRES BNDRY	RHR-106		VT-2	OSP-RPV-R801	6/11/03	A
RRC-PB-101(L)	LK PRES BNDRY	RRC-101		VT-2	OSP-RPV-R801	6/11/03	A
RRC-PB-102(L)	LK PRES BNDRY	RRC-102		VT-2	OSP-RPV-R801	6/11/03	A
RRC-PB-104(L)	LK PRES BNDRY	RRC-104		VT-2	OSP-RPV-R801	6/11/03	A
RRC-PB-105(L)	LK PRES BNDRY	RRC-105		VT-2	OSP-RPV-R801	6/11/03	A
RRC-PB-106(L)	LK PRES BNDRY	RRC-106		VT-2	OSP-RPV-R801	6/11/03	A
RRC-PB-107(L)	LK PRES BNDRY	RRC-107		VT-2	OSP-RPV-R801	6/11/03	A
RRC-PB-108(L)	LK PRES BNDRY	RRC-108		VT-2	OSP-RPV-R801	6/11/03	A
RRC-PB-109(L)	LK PRES BNDRY	RRC-109		VT-2	OSP-RPV-R801	6/11/03	A
RRC-PB-110(L)	LK PRES BNDRY	RRC-110		VT-2	OSP-RPV-R801	6/11/03	A
RRC-PB-111(L)	LK PRES BNDRY	RRC-111		VT-2	OSP-RPV-R801	6/11/03	A
RWCU-PB-101(L)	LK PRES BNDRY	RWCU-101		VT-2	OSP-RPV-R801	6/11/03	A
SLC-PB-101(L)	LK PRES BNDRY	SLC-101		VT-2	OSP-RPV-R801	6/11/03	A
Item Number B15.60							
RRC-P-1A-BDY(L)	LK PRES BNDRY	RRC-103		VT-2	OSP-RPV-R801	6/11/03	A
RRC-P-1B-BDY(L)	LK PRES BNDRY	RRC-103		VT-2	OSP-RPV-R801	6/11/03	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
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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)
Item Number B15.70							
HPCS-V-4-BDY(L)	LK PRES TEST	HPCS-101	01	VT-2	OSP-RPV-R801	6/11/03	A
HPCS-V-5-BDY(L)	LK PRES TEST	HPCS-101	02	VT-2	OSP-RPV-R801	6/11/03	A
HPCS-V-51-BDY(L)	LK PRES TEST	HPCS-101	02	VT-2	OSP-RPV-R801	6/11/03	A
LPCS-V-5-BDY(L)	LK PRES TEST	LPCS-101	01	VT-2	OSP-RPV-R801	6/11/03	A
LPCS-V-6-BDY(L)	LK PRES TEST	LPCS-101	02	VT-2	OSP-RPV-R801	6/11/03	A
LPCS-V-51-BDY(L)	LK PRES TEST	LPCS-101	02	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-4A-BDY(L)	LK PRES TEST	MS-101	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-3A-BDY(L)	LK PRES TEST	MS-101	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-2A-BDY(L)	LK PRES TEST	MS-101	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-1A-BDY(L)	LK PRES TEST	MS-101	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-V-22A-BDY(L)	LK PRES TEST	MS-101	02	VT-2	OSP-RPV-R801	6/11/03	A
MS-V-28A-BDY(L)	LK PRES TEST	MS-101	02	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-5B-BDY(L)	LK PRES TEST	MS-102	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-4B-BDY(L)	LK PRES TEST	MS-102	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-3B-BDY(L)	LK PRES TEST	MS-102	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-2B-BDY(L)	LK PRES TEST	MS-102	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-1B-BDY(L)	LK PRES TEST	MS-102	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-V-22B-BDY(L)	LK PRES TEST	MS-102	02	VT-2	OSP-RPV-R801	6/11/03	A
MS-V-28B-BDY(L)	LK PRES TEST	MS-102	02	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-5C-BDY(L)	LK PRES TEST	MS-103	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-4C-BDY(L)	LK PRES TEST	MS-103	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-3C-BDY(L)	LK PRES TEST	MS-103	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-2C-BDY(L)	LK PRES TEST	MS-103	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-1C-BDY(L)	LK PRES TEST	MS-103	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-V-22C-BDY(L)	LK PRES TEST	MS-103	02	VT-2	OSP-RPV-R801	6/11/03	A
MS-V-28C-BDY(L)	LK PRES TEST	MS-103	02	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-4D-BDY(L)	LK PRES TEST	MS-104	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-3D-BDY(L)	LK PRES TEST	MS-104	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-2D-BDY(L)	LK PRES TEST	MS-104	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-RV-1D-BDY(L)	LK PRES TEST	MS-104	01	VT-2	OSP-RPV-R801	6/11/03	A
MS-V-22D-BDY(L)	LK PRES TEST	MS-104	02	VT-2	OSP-RPV-R801	6/11/03	A
MS-V-28D-BDY(L)	LK PRES TEST	MS-104	02	VT-2	OSP-RPV-R801	6/11/03	A
RCIC-V-63-BDY(L)	LK PRES TEST	RCIC-101	01	VT-2	OSP-RPV-R801	6/11/03	R
RCIC-V-64-BDY(L)	LK PRES TEST	RCIC-101	01	VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-23-BDY(L)	LK PRES TEST	RCIC-102	01	VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-19-BDY(L)	LK PRES TEST	RCIC-102	01	VT-2	OSP-RPV-R801	6/11/03	A
RCIC-V-13-BDY(L)	LK PRES TEST	RCIC-102	01	VT-2	OSP-RPV-R801	6/11/03	A
RCIC-V-65-BDY(L)	LK PRES TEST	RCIC-102	01	VT-2	OSP-RPV-R801	6/11/03	A
RCIC-V-66-BDY(L)	LK PRES TEST	RCIC-102	03	VT-2	OSP-RPV-R801	6/11/03	A
RFW-V-65A-BDY(L)	LK PRES TEST	RFW-101	01	VT-2	OSP-RPV-R801	6/11/03	A
RFW-V-32A-BDY(L)	LK PRES TEST	RFW-101	01	VT-2	OSP-RPV-R801	6/11/03	A
RFW-V-10A-BDY(L)	LK PRES TEST	RFW-101	01	VT-2	OSP-RPV-R801	6/11/03	A
RFW-V-11A-BDY(L)	LK PRES TEST	RFW-101	01	VT-2	OSP-RPV-R801	6/11/03	A
RFW-V-65B-BDY(L)	LK PRES TEST	RFW-102	01	VT-2	OSP-RPV-R801	6/11/03	A
RFW-V-32B-BDY(L)	LK PRES TEST	RFW-102	01	VT-2	OSP-RPV-R801	6/11/03	R
RFW-V-10B-BDY(L)	LK PRES TEST	RFW-102	01	VT-2	OSP-RPV-R801	6/11/03	A
RFW-V-11B-BDY(L)	LK PRES TEST	RFW-102	01	VT-2	OSP-RPV-R801	6/11/03	A
RWCU-V-40-BDY(L)	LK PRES TEST	RFW-103		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-42A-BDY(L)	LK PRES TEST	RHR-101		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-41A-BDY(L)	LK PRES TEST	RHR-101		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-111A-BDY(L)	LK PRES TEST	RHR-101		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-42B-BDY(L)	LK PRES TEST	RHR-102		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-41B-BDY(L)	LK PRES TEST	RHR-102		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-111B-BDY(L)	LK PRES TEST	RHR-102		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-42C-BDY(L)	LK PRES TEST	RHR-103		VT-2	OSP-RPV-R801	6/11/03	A

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

13. Abstract of Examinations and Tests (continued):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Results(1)
RHR-V-41C-BDY(L)	LK PRES TEST	RHR-103		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-111C-BDY(L)	LK PRES TEST	RHR-103		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-113-BDY(L)	LK PRES TEST	RHR-104		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-9-BDY(L)	LK PRES TEST	RHR-104		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-8-BDY(L)	LK PRES TEST	RHR-104		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-53A-BDY(L)	LK PRES TEST	RHR-105		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-50A-BDY(L)	LK PRES TEST	RHR-105		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-112A-BDY(L)	LK PRES TEST	RHR-105		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-50B-BDY(L)	LK PRES TEST	RHR-106		VT-2	OSP-RPV-R801	6/11/03	A
RHR-V-112B-BDY(L)	LK PRES TEST	RHR-106		VT-2	OSP-RPV-R801	6/11/03	A
RRC-V-23A-BDY(L)	LK PRES TEST	RRC-101	01	VT-2	OSP-RPV-R801	6/11/03	A
RRC-V-60A-BDY(L)	LK PRES TEST	RRC-101	02	VT-2	OSP-RPV-R801	6/11/03	A
RRC-V-67A-BDY(L)	LK PRES TEST	RRC-101	02	VT-2	OSP-RPV-R801	6/11/03	A
RRC-V-23B-BDY(L)	LK PRES TEST	RRC-102	01	VT-2	OSP-RPV-R801	6/11/03	A
RRC-V-60B-BDY(L)	LK PRES TEST	RRC-102	02	VT-2	OSP-RPV-R801	6/11/03	A
RRC-V-67B-BDY(L)	LK PRES TEST	RRC-102	02	VT-2	OSP-RPV-R801	6/11/03	A
RWCU-V-102-BDY(L)	LK PRES TEST	RWCU-101	02	VT-2	OSP-RPV-R801	6/11/03	A
RWCU-V-1-BDY(L)	LK PRES TEST	RWCU-101	04	VT-2	OSP-RPV-R801	6/11/03	A
RWCU-V-4-BDY(L)	LK PRES TEST	RWCU-101	05	VT-2	OSP-RPV-R801	6/11/03	A

Examination Category C-C
Item Number C3.20

RHR-188(W)	4 WELDED LUGS	RHR-201	02	SUR	2RHM-067	4/21/03	A
RHR-420(W)	4 WELDED LUGS	RHR-203	03	SUR	2RHM-063	4/16/03	A
RHR-918N(W)	8 WELDED LUGS	RHR-207	01	SUR	2RHM-059	4/15/03	A

Examination Category C-F-2
Item Number C5.51

16HPCS(1)-42	ELL TO PIPE	HPCS-202	05	SUR	2HPM-012	4/22/03	A
16HPCS(1)-42	ELL TO PIPE	HPCS-202	05	VOL	R16-028	4/22/03	A
16HPCS(1)-50	PIPE TO RED	HPCS-202	06	SUR	2HPM-013	4/22/03	A
16HPCS(1)-50	PIPE TO RED	HPCS-202	06	VOL	R16-029	4/22/03	A
24LPCS(2)-8	PIPE TO ELL	LPCS-201	02	SUR	2LPM-014	4/29/03	A
24LPCS(2)-8	PIPE TO ELL	LPCS-201	02	VOL	R16-049	4/30/03	A
24LPCS(2)-16	PIPE TO NOZZLE	LPCS-201	02	SUR	2LPM-015	5/1/03	A
24LPCS(2)-16	PIPE TO NOZZLE	LPCS-201	02	VOL	R16-048	5/1/03	A
30MS(1)A-7	PIPE TO ELL	MS-201	02	SUR	2MSM-048	5/20/03	A
30MS(1)A-7	PIPE TO ELL	MS-201	02	VOL	R16-078	5/20/03	A
30MS(1)A-16	ELL TO PIPE	MS-201	02	SUR	2MSM-049	5/20/03	A
30MS(1)A-16	ELL TO PIPE	MS-201	02	VOL	R16-077	5/20/03	A
18MS(1)A-3	ELL TO PIPE	MS-201	03	SUR	2MSM-046	5/20/03	A
18MS(1)A-3	ELL TO PIPE	MS-201	03	VOL	R16-032	5/20/03	A
18MS(1)A-8	PIPE TO ELL	MS-201	03	SUR	2MSM-046	5/20/03	A
18MS(1)A-8	PIPE TO ELL	MS-201	03	VOL	R16-033	5/20/03	A
18MS(1)A-9	ELL TO PIPE	MS-201	03	SUR	2MSM-046	5/20/03	A
18MS(1)A-9	ELL TO PIPE	MS-201	03	VOL	R16-034	5/20/03	A
24MS(1)-2	PIPE TO VALVE	MS-205		SUR	2MSM-047	5/20/03	A
24MS(1)-2	PIPE TO VALVE	MS-205		VOL	R16-050	5/20/03	A
6RCIC(1)-54	ELL TO PIPE	RCIC-205	01	SUR	2RIM-017	4/28/03	A
6RCIC(1)-54	ELL TO PIPE	RCIC-205	01	VOL	R16-091	4/28/03	A
6RCIC(1)-65	PIPE TO TEE	RCIC-205	02	SUR	2RIM-018	4/28/03	A
6RCIC(1)-65	PIPE TO TEE	RCIC-205	02	VOL	R16-092	4/28/03	A
6RCIC(6)-1	TEE TO PIPE	RCIC-205	03	SUR	2RIM-019	4/28/03	A
6RCIC(6)-1	TEE TO PIPE	RCIC-205	03	VOL	R16-094	4/28/03	A
6RCIC(6)-2	PIPE TO ELL	RCIC-205	03	SUR	2RIM-020	4/28/03	A

FORM NIS-1 (Continued)

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

13. Abstract of Examinations and Tests (continued):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Results(1)
LPCS-P-1N-3	PMP NOZZLE WELD	LPCS-208	01	SUR	2LPM-012	4/29/03	A
RCIC-P-1D	PMP NOZZLE WELD	RCIC-205	01	SUR	2RIM-016	4/28/03	A
Examination Category D-A Item Number D1.20							
MSH-29(W)	ATTACH WELD	MS-210	01	VT-3	2MSV-145	5/20/03	A
MSH-30(W)	ATTACH WELD	MS-210	02	VT-3	2MSV-146	5/20/03	A
Item Number D1.40							
MS-289(W)	WELDED ATTACH	MS-308	02	VT-3	2MSV-141	5/15/03	A
Examination Category D-B Item Number D2.10							
CCH-PB-304(L)	LK PRES BNDRY	CCH-304		VT-2	2CCV-004	4/9/02	A
CCH-PB-305(L)	LK PRES BNDRY	CCH-305		VT-2	2CCV-004	4/9/02	A
CCH-PB-306(L)	LK PRES BNDRY	CCH-306		VT-2	2CCV-004	4/9/02	A
SW-PB-301(L)	LK PRES BNDRY	SW-301		VT-2	2SWV-022	11/14/02	A
SW-PB-302(L)	LK PRES BNDRY	SW-302		VT-2	2SWV-019	2/12/03	A
SW-PB-303(L)	LK PRES BNDRY	SW-303		VT-2	2SWV-019	2/12/03	A
SW-PB-304(L)	LK PRES BNDRY	SW-304		VT-2	2SWV-021	11/14/02	A
SW-PB-305(L)	LK PRES BNDRY	SW-305		VT-2	2SWV-022	11/14/02	A
SW-PB-306(L)	LK PRES BNDRY	SW-306		VT-2	2SWV-020	2/12/03	A
SW-PB-307(L)	LK PRES BNDRY	SW-307		VT-2	2SWV-020	2/12/03	A
SW-PB-308(L)	LK PRES BNDRY	SW-308		VT-2	2SWV-021	11/14/02	A
SW-PB-309(L)	LK PRES BNDRY	SW-309		VT-2	2SWV-025	11/13/02	A
SW-PB-310(L)	LK PRES BNDRY	SW-310		VT-2	2SWV-023	11/14/02	A
SW-PB-311(L)	LK PRES BNDRY	SW-311		VT-2	2SWV-021	11/14/02	A
SW-59(W)	WELDED ATTACH	SW-301	02	VT-3	2SWV-028	4/22/03	A
SW-436(W)	WELDED ATTACH	SW-301	02	VT-3	2SWV-029	4/22/03	A
SW-123(W)	WELDED ATTACH	SW-301	06	VT-3	2SWV-031	4/22/03	A
SW-81(W)	WELDED ATTACH	SW-307	01	VT-3	2SWV-027	4/15/03	A
SW-13(W)	WELDED ATTACH	SW-309		VT-3	2SWV-030	4/22/03	A
Item Number D2.40							
SW-22(W)	WELDED ATTACH	SW-305	04	VT-3	2SWV-026	4/15/03	A
Examination Category D-C Item Number D3.10							
FPC-PB-301(L)	LK PRES BNDRY	FPC-301		VT-2	2FPC-002	2/11/03	A
FPC-PB-302(L)	LK PRES BNDRY	FPC-302		VT-2	2FPV-002	2/11/03	A
FPC-PB-303(L)	LK PRES BNDRY	FPC-303		VT-2	2FPC-002	2/11/03	A
FPC-PB-304(L)	LK PRES BNDRY	FPC-304		VT-2	2FPC-002	2/11/03	A
FPC-PB-305(L)	LK PRES BNDRY	FPC-305		VT-2	2FPC-002	2/11/03	A
Examination Category F-A Item Number F1.10A							
MS-SD-1	STRUT	MS-104	02	VT-3	2HV-354	5/15/03	A
MS-SD-2	STRUT	MS-104	02	VT-3	2HV-356	5/15/03	A
RWCU-1C-1	STRUT	RWCU-101	04	VT-3	2HV-372	5/23/03	A

Item Number F1.10B

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

13. Abstract of Examinations and Tests (continued):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts (1)
6RCIC(6)-2	PIPE TO ELL	RCIC-205	03	VOL	R16-095	4/28/03	A
6RCIC(1)-72	ELL TO PIPE	RCIC-205	04	SUR	2RIM-021	4/28/03	A
6RCIC(1)-72	ELL TO PIPE	RCIC-205	04	VOL	R16-093	4/28/03	A
18RHR(1)A-4	PIPE TO ELL	RHR-201	01	SUR	2RHM-068	4/21/03	A
18RHR(1)A-4	PIPE TO ELL	RHR-201	01	VOL	R16-036	4/21/03	A
18RHR(1)A-5	ELL TO PIPE	RHR-201	01	SUR	2RHM-069	4/21/03	A
18RHR(1)A-5	ELL TO PIPE	RHR-201	01	VOL	R16-037	4/21/03	A
18RHR(1)A-6	PIPE TO ELL	RHR-201	01	SUR	2RHM-070	4/21/03	A
18RHR(1)A-6	PIPE TO ELL	RHR-201	01	VOL	R16-038	4/21/03	A
18RHR(1)A-21	PIPE TO TEE	RHR-201	02	SUR	2RHM-076	4/22/03	A
18RHR(1)A-21	PIPE TO TEE	RHR-201	02	VOL	R16-035	4/23/03	A
12RHR(1)A-1C	FLANGE TO PIPE	RHR-201	11	SUR	2RHM-077	4/24/03	A
12RHR(1)A-1C	FLANGE TO PIPE	RHR-201	11	VOL	R16-017	4/24/03	A
12RHR(1)A-3A	PIPE TO ELL	RHR-201	11	SUR	2RHM-078	4/24/03	A
12RHR(1)A-3A	PIPE TO ELL	RHR-201	11	VOL	R16-021	4/24/03	A
16RHR(5)A-3	ELL TO PIPE	RHR-202	01	SUR	2RHM-083	5/22/03	A
16RHR(5)A-3	ELL TO PIPE	RHR-202	01	VOL	R16-030	5/22/03	A
18RHR(4)A-23	ELL TO PIPE	RHR-203	02	SUR	2RHM-073	4/22/03	A
18RHR(4)A-23	ELL TO PIPE	RHR-203	02	VOL	R16-042	4/22/03	A
18RHR(4)A-25	PIPE TO ELL	RHR-203	02	SUR	2RHM-074	4/22/03	A
18RHR(4)A-25	PIPE TO ELL	RHR-203	02	VOL	R16-043	4/22/03	A
18RHR(2)A-1	REDUCER TO PIPE	RHR-205	02	SUR	2RHM-061	4/16/03	A
18RHR(2)A-1	REDUCER TO PIPE	RHR-205	02	VOL	R16-039	4/17/03	A
18RHR(2)A-2	PIPE TO TEE	RHR-205	02	SUR	2RHM-062	4/16/03	A
18RHR(2)A-2	PIPE TO TEE	RHR-205	02	VOL	R16-041	4/17/03	A
18RHR(2)A-12	PIPE TO TEE	RHR-205	03	SUR	2RHM-072	4/21/03	A
18RHR(2)A-12	PIPE TO TEE	RHR-205	03	VOL	R16-040	4/21/03	A
24RHR(2)A-2	TEE TO PIPE	RHR-205	03	SUR	2RHM-071	4/21/03	A
24RHR(2)A-2	TEE TO PIPE	RHR-205	03	VOL	R16-051	4/21/03	A
24RHR(2)A-6	FLANGE TO ELL	RHR-205	03	SUR	2RHM-064	4/17/03	A
24RHR(2)A-6	FLANGE TO ELL	RHR-205	03	VOL	R16-052	4/17/03	A
24RHR(3)A-10	ELL TO TEE	RHR-205	04	SUR	2RHM-065	4/17/03	A
24RHR(3)A-10	ELL TO TEE	RHR-205	04	VOL	R16-056	4/17/03	A
20RHR(8)A-1B	FLANGE TO PIPE	RHR-206	01	SUR	2RHM-068	4/17/03	A
20RHR(8)A-1B	FLANGE TO PIPE	RHR-206	01	VOL	R16-048	4/17/03	A
20RHR(8)A-17	ELL TO PIPE	RHR-206	03	SUR	2RHM-075	4/23/03	A
20RHR(8)A-17	ELL TO PIPE	RHR-206	03	VOL	R16-045	4/23/03	A
16RHR(5)B-6	PIPE TO VALVE	RHR-207	14	SUR	2RHM-058	4/15/03	A
16RHR(5)B-6	PIPE TO VALVE	RHR-207	14	VOL	R16-031	4/16/03	A
14RHR(1)C-1	RED TO PIPE	RHR-210	04	SUR	2RHM-079	5/1/03	A
14RHR(1)C-1	RED TO PIPE	RHR-210	04	VOL	R16-027	5/1/03	A
24RHR(3)-2	VALVE TO PIPE	RHR-211	01	SUR	2RHM-080	5/2/03	A
24RHR(3)-2	VALVE TO PIPE	RHR-211	01	VOL	R16-053	5/5/03	A
24RHR(3)-6	ELL TO PIPE	RHR-211	01	SUR	2RHM-081	5/2/03	A
24RHR(3)-6	ELL TO PIPE	RHR-211	01	VOL	R16-054	5/5/03	A
24RHR(3)-8	ELL TO PIPE	RHR-211	01	SUR	2RHM-082	5/2/03	A
24RHR(3)-8	ELL TO PIPE	RHR-211	01	VOL	R16-055	5/5/03	A

Item Number C8.81

20RHR(2)A-11/10RHR(2)-2	PIPE TO WOL	RHR-205	02	SUR	2RHM-060	4/16/03	A
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Examination Category C-G

Item Number C6.10

LPCS-P-1C-4	PMP CAS/CIR WLD	LPCS-208	01	SUR	2LPM-010	4/29/03	A
LPCS-P-1C-5	PMP CAS/CIR WLD	LPCS-208	01	SUR	2LPM-011	4/29/03	A

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

13. Abstract of Examinations and Tests (continued):

Identification No.	Description	Diagram No.	Pg.	Method	Report No.	Date	Rslts(1)
RRC-6	SPRING	RRC-109		VT-3	2HV-361	5/19/03	A
Item Number F1.10C							
LPCS-13	SPRING	LPCS-101	01	VT-3	2HV-320	4/29/03	A
MS-1368-11	SPRING	MS-105	02	VT-3	2HV-357	5/15/03	A
RCIC-74	SPRING	RCIC-101	01	VT-3	2HV-352	5/12/03	A
RCIC-59	SPRING	RCIC-101	03	VT-3	2HV-351	5/12/03	A
RWCU-146	SPRING	RWCU-101	02	VT-3	2HV-371	5/23/03	A
Item Number F1.10D							
MS-1368-12	PSA-1/2 SNUBBER	MS-105	02	VT-3	2HV-376	5/27/03	A
RHR-SA-38	PSA-10 SNUBBER	RHR-105		VT-3	2HV-360	5/15/03	A
RWCU-1C-8	PSA-3 SNUBBER	RWCU-101	03	VT-3	2HV-377	6/3/03	A
Item Number F1.20A							
LPCS-3	ANCHOR	LPCS-201	01	VT-3	2HV-321	4/29/03	A
LPCS-1	RIGID	LPCS-201	02	VT-3	2HV-349	4/29/03	A
MS-98	STRUT	MS-201	03	VT-3	2HV-364	5/19/03	A
MS-997N	STRUT	MS-202	02	VT-3	2HV-363	5/19/03	A
MS-1010N	STRUT	MS-204	02	VT-3	2HV-366	5/19/03	A
RCIC-8	STRUT	RCIC-205	03	VT-3	2HV-319	4/28/03	A
RHR-412	STRUT	RHR-203	02	VT-3	2HV-308	4/22/03	A
RHR-415	STRUT	RHR-203	02	VT-3	2HV-311	4/22/03	A
RHR-132	ANCHOR	RHR-206	03	VT-3	2HV-317	4/24/03	A
RHR-916N	RIGID	RHR-206	03	VT-3	2HV-318	4/24/03	A
RHR-557	STRUT	RHR-207	06	VT-3	2HV-298	4/15/03	A
RHR-184	STRUT	RHR-207	16	VT-3	2HV-299	4/16/03	A
RHR-98	STRUT	RHR-210	05	VT-3	2HV-374	5/27/03	A
RHR-97	BOX	RHR-210	05	VT-3	2HV-373	5/27/03	A
RHR-905N	STRUT	RHR-211	01	VT-3	2HV-350	5/2/03	A
RHR-900N	STRUT	RHR-211	01	VT-3	2HV-346	5/2/03	A
RHR-46	BOX	RHR-211	01	VT-3	2HV-347	5/2/03	A
RHR-966N	ANCHOR	RHR-211	01	VT-3	2HV-348	5/2/03	A
Item Number F1.20C							
MS-121	SPRING	MS-201	02	VT-3	2HV-365	5/19/03	A
MS-97	SPRING	MS-201	03	VT-3	2HV-368	5/19/03	A
MS-171	SPRING	MS-202	02	VT-3	2HV-362	5/19/03	A
RHR-161	SPRING	RHR-201	01	VT-3	2HV-307	4/21/03	A
RHR-188	SPRING	RHR-201	02	VT-3	2HV-306	4/21/03	A
RHR-420	SPRING	RHR-203	03	VT-3	2HV-305	4/17/03	A
Item Number F1.20D							
MS-96	PSA-10 SNUBBER	MS-201	03	VT-3	2HV-367	5/19/03	A
MS-177	PSA-3 SNUBBER	MS-202	03	VT-3	2HV-369	5/19/03	A
RHR-414	STRUT	RHR-203	02	VT-3	2HV-309	4/22/03	A
RHR-416	PSA-10 SNUBBER	RHR-203	02	VT-3	2HV-310	4/22/03	A
RHR-419	PSA-3 SNUBBER	RHR-203	03	VT-3	2HV-304	4/17/03	A
RHR-59	PSA-10 SNUBBER	RHR-205	02	VT-3	2HV-301	4/16/03	A
RHR-61	PSA-10 SNUBBER	RHR-205	02	VT-3	2HV-303	4/16/03	A
RHR-60	PSA-3 SNUBBER	RHR-205	02	VT-3	2HV-302	4/16/03	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	Rsults(1)
RHR-495	PSA-35 SNUBBER	RHR-207	13	VT-3	2HV-355	5/15/03	A
Item Number F1.30A							
FPC-126	STRUT	FPC-306		VT-3	2HV-292	4/14/03	A
FPC-123	BOX	FPC-306		VT-3	2HV-291	4/14/03	A
MSH-42	RIGID	MS-215	02	VT-3	2HV-370	5/20/03	A
SW-59	BOX	SW-301	02	VT-3	2HV-312	4/22/03	A
SW-436	STRUT	SW-301	02	VT-3	2HV-313	4/22/03	A
SW-123	RIGID	SW-301	06	VT-3	2HV-316	4/22/03	A
SW-941N	BOX	SW-303	08	VT-3	2HV-342	5/1/03	A
SW-940N	BOX	SW-303	08	VT-3	2HV-343	5/1/03	A
SW-939N	BOX	SW-303	08	VT-3	2HV-344	5/1/03	A
SW-938N	BOX	SW-303	08	VT-3	2HV-314	4/22/03	A
SW-936N	BOX	SW-303	08	VT-3	2HV-345	5/1/03	A
SW-80	BOX	SW-307	01	VT-3	2HV-296	4/15/03	A
SW-81	BOX	SW-307	01	VT-3	2HV-297	4/15/03	A
SW-914N	STRUT	SW-307	01	VT-3	2HV-300	4/16/03	A
SW-919N	BOX	SW-307	05	VT-3	2HV-332	4/29/03	A
SW-920N	BOX	SW-307	05	VT-3	2HV-333	4/29/03	A
SW-921N	BOX	SW-307	05	VT-3	2HV-293	4/15/03	A
SW-922N	BOX	SW-307	05	VT-3	2HV-334	4/29/03	A
SW-923N	BOX	SW-307	05	VT-3	2HV-335	4/29/03	A
SW-924N	BOX	SW-307	05	VT-3	2HV-336	4/29/03	A
SW-925N	BOX	SW-307	05	VT-3	2HV-329	5/1/03	A
SW-926N	BOX	SW-307	05	VT-3	2HV-328	5/1/03	A
SW-927N	BOX	SW-307	05	VT-3	2HV-327	5/1/03	A
SW-928N	BOX	SW-307	05	VT-3	2HV-326	5/1/03	A
SW-929N	BOX	SW-307	05	VT-3	2HV-337	4/30/03	A
SW-930N	BOX	SW-307	05	VT-3	2HV-338	4/30/03	A
SW-931N	BOX	SW-307	05	VT-3	2HV-330	5/1/03	A
SW-932N	BOX	SW-307	05	VT-3	2HV-331	5/1/03	A
SW-933N	BOX	SW-307	05	VT-3	2HV-339	5/1/03	A
SW-934N	BOX	SW-307	05	VT-3	2HV-340	4/30/03	A
SW-935N	BOX	SW-307	05	VT-3	2HV-341	5/1/03	A
SW-13	BOX	SW-309		VT-3	2HV-315	4/22/03	A
Item Number F1.30C							
MS-289	SPRING	MS-308	02	VT-3	2HV-353	5/15/03	A
MS-300	SPRING	MS-312	01	VT-3	2HV-358	5/15/03	A
MS-324	SPRING	MS-314	01	VT-3	2HV-359	5/15/03	A
SW-22	SPRING	SW-305	04	VT-3	2HV-294	4/15/03	A

Item Number F1.30D

SW-29	PSA-10 SNUBBER	SW-305	03	VT-3	2HV-295	4/15/03	A
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Notes to section 13 "Abstract of Examinations and Tests"

(1) A = Acceptable R = Rejectable

- END OF REPORT -

APPENDIX B

NIS-2 OWNER'S REPORTS

This appendix summarizes ASME Section XI repair or replacement work performed between July 3, 2001 and June 27, 2003. 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 COMPONENT
2-1613	01035797 01	Tack welded yoke bushing to bonnet for valve FPC-V-123	Valve
2-1672	01031539 01	Replaced base for relief valve RCC-RV-34A - See Plan No 2-1740	Relief Valve
2-1681 *	01034197 04	Prefabricated - Modified vent connection with valve RHR-V-632	Piping
2-1681 *	01034197 01	Installed - Modified vent connection with valve RHR-V-632	Piping
2-1682 *	01033599 02	Prefabricated - Modified vent connection with valve RHR-V-739	Piping
2-1682 *	01033599 01	Installed - Modified vent connection with valve RHR-V-739	Piping
2-1683	01033519 01	Replaced rupture disc for CAC-RD-1A	Piping
2-1724	01009558 01	Replaced relief valve FPC-RV-117A	Piping
2-1725	01009559 01	Replaced relief valve FPC-RV-117B	Piping
2-1740	01009560 01	Replaced relief valve RCC-RV-34A - See Plan No 2-1672	Piping
2-1748	01009561 01	Replaced relief valve RCC-RV-34B	Piping
2-1768 *	01029526 01	Performed on-line leak seal (Furmanite) for packing leak for valve MS-V-706A	Valve
2-1769	01029596 01	Replaced mechanical seal for pump RRC-P-1B	Pump
2-1770 *	01029527 01	Replaced valve MS-V-706A	Piping
2-1771 *	01032504 03	Replaced U bolts and jam nuts for supports in Diesel Oil (DO) system	Piping
2-1772 *	01032504 03	Replaced U bolts and jam nuts for support in Service Water (SW) system	Piping
2-1773	01046655 01	Prefabricated 18" Service Water (SW) pipe piece near valve SW-V-12B	Piping
2-1774	01046655 05	Replaced 18" Service Water (SW) pipe piece near valve SW-V-12B	Piping
2-1775	01046655 07	Repaired wasted surfaces for valve SW-V-12B	Valve
2-1776	01033203 01	Replaced pipe nipple associated with valve CCH-V-28B	Piping
2-1777 *	01036220 01	Prefabricated - Piping work associated with valve PI-V-X269 replacement	Piping
2-1777 *	01036220 02	Prefabricated - Support work associated with valve PI-V-X269 replacement	Support
2-1777 *	01036219 01	Installed - Replaced valve PI-V-X269 - Third Replacement	Piping
2-1778 *	01036219 13	Replaced tubing associated with valve PI-V-X269 - See Plan No 2-1777	Tubing
2-1779	01033452 01	Modified used spare nozzles for Main Steam Relief Valves (MSRV's)	Relief Valves
2-1780	01044667 01	Replaced relief valve SLC-RV-29A	Piping
2-1781	01044666 01	Replaced relief valve SLC-RV-29B	Piping
2-1786	01059620 05	Replaced body to bonnet studs and nuts for valve RCC-TCV-72B	Valve
2-1787	01038874 01	Replaced parts for valve SLC-V-4A	Valve
2-1788	01043129 01	Replaced rupture disc for RCIC-RD-1 and RCIC-RD-2	Piping
2-1789	01047989 01	Prefabricated 18" Service Water (SW) pipe piece near valve SW-V-12A	Piping
2-1789	01047989 05	Replaced 18" Service Water (SW) pipe piece near valve SW-V-12A	Piping
2-1790	01047989 03	Repaired wasted surfaces for valve SW-V-12A	Valve
2-1793 *	01045472 01	Replaced valve MS-V-706C	Piping
2-1794	01037493 01	Installed flushing ports (taps) for Scram Discharge Volume (SDV - CRD)	Piping
2-1796	01004931 01	Replaced existing relief valve MS-RV-1D with spare S/N N63790-03-0122	Piping
2-1797	01004928 01	Replaced existing relief valve MS-RV-2A with spare S/N N63790-03-0051	Piping
2-1798	01004927 01	Replaced existing relief valve MS-RV-3A with spare S/N N63790-03-0058	Piping
2-1799	01039817 01	Replaced existing relief valve MS-RV-3D with spare S/N N63790-03-0057	Piping
2-1800	01004929 01	Replaced existing relief valve MS-RV-5B with spare S/N N63790-03-0060	Piping
2-1801 *	01049646 01	Prefabricated - Replaced valves RCIC-V-25, 26, 54 and associated piping	Piping
2-1801 *	01039141 01	Installed - Replaced valves RCIC-V-25, 26, 54 and associated piping	Piping
2-1802	01038639 01	Replaced relief valve RCIC-RV-17	Piping
2-1803 *	01055127 01	Prefabricated - Replaced SW supply and return piping to RHR-HX-2A - See Plan 2-1867	Piping
2-1803 *	01044705 07	Installed - Replaced SW supply and return piping to RHR-HX-2A - See Plan No 2-1867	Piping
2-1804	01056149 08	Prefabricated - Replaced SW supply piping to CAC-HR-1B	Piping
2-1804	01056149 08	Installed - Replaced SW supply piping to CAC-HR-1B	Piping
2-1805	01055125 01	Prefabricated - Replaced SW return piping from CAC-HR-1A	Piping
2-1805	01044747 03	Installed - Replaced SW return piping from CAC-HR-1A	Piping
2-1806 *	01056129 02	Prefabricated - Replaced piping material associated with SW-V-777A	Piping
2-1806 *	01034304 01	Installed - Replaced piping material associated with SW-V-777A	Piping
2-1807	01046272 01	Assembled/Refurbished mechanical seal S/N N01-1 for RRC pumps	Pump
2-1809	01045039 02	Replaced relief valve RHR-RV-1A - See plan No 2-1811	Piping
2-1810	01044995 01	Replaced relief valve RHR-RV-1B	Piping

PLAN NO	WOT NO	COMPONENT NUMBER AND WORK DESCRIPTION	CODE COMPONENT
2-1811	01027538 01	Replaced disc for relief valve RHR-RV-1A, S/N N60597-00-0018 - See plan No 2-1809	Relief Valve
2-1812	01038643 01	Replaced relief valve RHR-RV-25B	Piping
2-1813 *	01059091 01	Replaced valve RRC-V-20	Piping
2-1814	01045018 01	Replaced relief valve SW-RV-1A	Piping
2-1815	01038700 01	Replaced relief valve SW-RV-1B	Piping
2-1816	01028746 01	Made body to bonnet seal weld for valve CIA-V-52A	Valve
2-1817	01028745 01	made body to bonnet seal weld for valve CIA-V-58B	Valve
2-1818	01037256 01	Replaced studs and nuts for DCW-HX-1B1	Heat Exchanger
2-1819	01037255 01	Replaced studs and nuts for DCW-HX-1B2	Heat Exchanger
2-1820	01042995 01	Replaced valve COND-V-1060	Piping
2-1821	01049443 08	Replaced studs and nuts for piping flange joints associated with EDR-HX-1	Piping
2-1822	01050687 01	Replaced valve RCIC-PCV-15	Piping
2-1823	01043289 01	Installed hinge pin cover for valve RFW-V-10A	Valve
2-1824	01043293 01	Installed hinge pin cover for valve RFW-V-10B	Valve
2-1825	01037260 11	Fabricated (machined) tube plugs for RHR-HX-1A/1B - See Plan No 2-1826	Heat Exchanger
2-1826	01057255 12	Replaced parts for valve MS-V-22A	Valve
2-1827 *	01027725 01	Replaced valve RFW-V-45B	Piping
2-1829	01050687 02	Fabricated orifice plate for RCIC-RO-9	Piping
2-1830	01057081 01	Machined under sized pins	Supports
2-1831	01037433 01	Replaced snubbers with rigid struts for supports RHR-373, 414, 416, 419 and 983N	Supports
2-1831	01037433 01	Replaced snubbers with rigid struts for supports RHR-218, 403, 449, 454 and 503	Supports
2-1832	01037433 01	Replaced snubbers with rigid struts for supports RHR-39 and 42	Supports
2-1833	01037433 01	Replaced snubbers with rigid struts for supports RHR-946N, 947N, 948N and 952N	Supports
2-1833	01037433 01	Replaced snubbers with rigid struts for supports RHR-954N, 183, 906N and 959N	Supports
2-1834	01037433 01	Replaced snubbers with rigid struts for supports RHR-206, 210, 993N	Supports
2-1835	01037433 01	Replaced snubbers with rigid struts for supports RHR-400, 401	Supports
2-1836	01013041 01	Installed hinge pin plug for valve RFW-V-10A	Valve
2-1844 *	01050530 01	Replaced poppet for valve RHR-V-60A	Valve
2-1845 *	01050531 01	Replaced poppet for valve RHR-V-75A	Valve
2-1846	01053751 05	Replaced 18" Service Water (SW) pipe piece near SW-RO-2A	Piping
2-1847	01057925 01	Made body to bonnet (spring housing) tack welds for valve RCIC-PCV-15	Valve
2-1848	01057088 01	Performed work on valve LPCS-V-3	Valve
2-1849	01037167 01	Performed work on valve RHR-V-41B	Valve
2-1850	PO 313236	Refurbished MSRV S/N N63790-03-0051 - NWS Tech, Spartanburg, SC	Relief Valve
2-1851	PO 313236	Refurbished MSRV S/N N63790-03-0057 - NWS Tech, Spartanburg, SC	Relief Valve
2-1852	PO 313236	Refurbished MSRV S/N N63790-03-0058 - NWS Tech, Spartanburg, SC	Relief Valve
2-1853	PO 313236	Refurbished MSRV S/N N63790-03-0060 - NWS Tech, Spartanburg, SC	Relief Valve
2-1854	PO 313236	Refurbished MSRV S/N N63790-03-0122 - NWS Tech, Spartanburg, SC	Relief Valve
2-1855 *	01004957 01	Replaced valve IR-V-IR84/V1 (IR-83-V-1C)	Valve
2-1857	01043563 08	Removed Serial No 28467 and installed Serial No 28472 for valve MS-V-67A	Piping
2-1858	01032773 13	Removed Serial No 28472 and installed Serial No 28467 for valve MSLC-V-2D	Piping
2-1859	01038642 11	Replaced base for relief valve RHR-RV-88C, S/N 509258-89-1	Relief Valve
2-1862	01060660 01	Made body to bonnet seal weld for valve RHR-V-84B	Valve
2-1864	01059571 02	Replaced disc and made body to bonnet seal weld for valve LPCS-V-34 - See Plan No 2-1866	Valve
2-1865	01010767 01	Replaced bolting material for piping to valve SW-V-165A flanged joints	Piping
2-1866	01059571 02	Replaced bonnet for valve LPCS-V-34 - See Plan No 2-1864	Valve
2-1867 *	01044705 07	Modified (reworked) and install 1" U bolts for SW piping - See Plan No 2-1803	Supports
2-1868	01044707 01	Replaced material for support CIA-4132-14	Support
2-1868	01044706 01	Replaced material for support CIA-4133-13	Support
2-1869	01059768 01	Replaced material for supports SW-1525-16 and SW-1523-24	Supports
2-1870 *	01039141 10	Modified (reworked) and install 1" U bolts for RCIC piping - See Plan No 2-1802	Piping
2-1871 *	01059597 10	Replaced hanger rods and nuts for support RCIC-976S	Support
2-1872	01031772 01	Machined surface defects on disc seating surface for valve RCIC-V-73	Valve
2-1873	01060688 06	Replaced disc and made body to bonnet seal weld for valve RHR-V-85B	Valve

PLAN NO	WOT NO	COMPONENT NUMBER AND WORK DESCRIPTION	CODE COMPONENT
2-1875	01057255 12	Performed VT-1 visual examinations on spare studs and nuts for MSIV's (MS-V-22A)	Valve
2-1876	01057255 12	Ground bore ID for valve MS-V-22A	Valve
2-1877	01057255 12	Weld repaired bore ID for valve MS-V-22A	Valve
2-1878	01060862 01	Replaced pipe for connection with valves HPCS-V-713 and HPCS-V-714	Piping
N/A	01037433 01	Replaced snubber for support MS-1368-12	Support
N/A	01037433 01	Replaced snubber for support RHR-2264-11	Support
N/A	01037433 01	Replaced snubber for support RWCU-1C-8	Support
N/A	01044800 15	Replaced Control Rod Drive (CRD) at Core Location 02-43	CRD
N/A	01044800 28	Replaced Control Rod Drive (CRD) at Core Location 18-31	CRD
N/A	01044800 31	Replaced Control Rod Drive (CRD) at Core Location 14-51	CRD
N/A	01044800 36	Replaced Control Rod Drive (CRD) at Core Location 30-19	CRD
N/A	01044800 52	Replaced Control Rod Drive (CRD) at Core Location 30-03	CRD
N/A	01044800 61	Replaced Control Rod Drive (CRD) at Core Location 18-11	CRD
N/A	01044800 70	Replaced Control Rod Drive (CRD) at Core Location 14-43	CRD
N/A	01044800 73	Replaced Control Rod Drive (CRD) at Core Location 18-07	CRD
N/A	01044800 74	Replaced Control Rod Drive (CRD) at Core Location 38-03	CRD
N/A	01044800 75	Replaced Control Rod Drive (CRD) at Core Location 42-03	CRD
N/A	01044800 77	Replaced Control Rod Drive (CRD) at Core Location 26-31	CRD
N/A	01044800 78	Replaced Control Rod Drive (CRD) at Core Location 34-03	CRD
N/A	01044800 82	Replaced Control Rod Drive (CRD) at Core Location 38-55	CRD
N/A	01044800 84	Replaced Control Rod Drive (CRD) at Core Location 46-27	CRD
N/A	01044800 15	Replaced Control Rod Drive (CRD) at Core Location 26-43	CRD
N/A	01059767 02	Replaced ring flange for Control Rod Drive (CRD) at Core Location 58-31	CRD
N/A	01059767 02	Replaced ring flange cap screws for Control Rod Drive (CRD) at Core Location 58-31	CRD
N/A	01044801 05	Overhauled Control Rod Drive (CRD) Serial No 6108	CRD
N/A	01044801 31	Overhauled Control Rod Drive (CRD) Serial No A9270	CRD
N/A	01044801 35	Overhauled Control Rod Drive (CRD) Serial No A9322	CRD
N/A	01044801 36	Overhauled Control Rod Drive (CRD) Serial No A8974	CRD
N/A	01044801 40	Overhauled Control Rod Drive (CRD) Serial No A9343	CRD
N/A	01044801 41	Overhauled Control Rod Drive (CRD) Serial No A9264	CRD
N/A	01044801 42	Overhauled Control Rod Drive (CRD) Serial No 7166	CRD
N/A	01044801 44	Overhauled Control Rod Drive (CRD) Serial No 6552	CRD
N/A	01044801 48	Overhauled Control Rod Drive (CRD) Serial No 7041	CRD
N/A	01044801 50	Overhauled Control Rod Drive (CRD) Serial No 6565	CRD
N/A	01044801 52	Overhauled Control Rod Drive (CRD) Serial No 6088	CRD

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:** Fuel Pool Cooling (FPC) System**5. (a) Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Summer 1973 Addenda, Code Case: None**(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
FPC-V-123	Velan	77G153	N/A	N/A	1977	Repaired	Yes, Code Class 3

7. Description Of Work Performed: Replaced the existing yoke bushing for valve FPC-V-123. The work was performed as follows:

- 1) Removed existing yoke bushing.
- 2) Installed replacement yoke bushing.
- 3) Made required tack weld(s)
- 4) Performed visual examination on the final tack weld(s). 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 ☒ None ☐
 Test Pressure: 85 Psig Test Temperature: 81° F
 Component Design Pressure: 150 Psig Temperature: 150° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 9/4/02 Date 9/4/02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 7/18/02 to 9/16/02 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

J. M. East Commissions 7486 WJ 7486 WI
 Inspector's Signature National Board, State, and Endorsements

Date 9/16/02



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: 02/22/03

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 1971 Addenda, Code Case: None

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCC-RV-34A Base Assembly Base Assembly	Loneran Loneran AGC	137916-2-1 J1579-6 K99408-31-0001	N/A N/A N/A	N/A N/A N/A	1994 1994 2002	----- Replaced Replacement	Yes, Code Class 3 No, Code Class 3 No, Code Class 2

7. Description Of Work Performed: Replaced nozzle (base assembly) for spare relief valve RCC-RV-34A, Serial No 137916-2-1. The replacement work was performed as follows:

- 1) Removed existing nozzle (base assembly) from the relief valve.
- 2) Installed replacement nozzle (base assembly), Serial No K99408-31-0001 in the relief valve.

NOTES-

- 1) ASME Section III, Code Class 2 part for ASME Section III, Code Class 3 application.
- 2) Lonergan relief valves parts are now being manufactured by Anderson Greenwood Crosby (AGC).



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 nozzle (base assembly), Serial No K99408-31-0001.

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 2/22/03

Date 2/22/03

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 4/24/02 to 3/6/03 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 748614/7486 NIS NS
 National Board, State, and Endorsements

Date 3/6/03

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

As required by the Provisions of the ASME Code, Section III, Division 1 - Not to Exceed One Day's Production

1. Manufactured and certified by Anderson Greenwood Crosby, 43 Kendrick St., Wrentham, MA 02093
(Name and Address of N Certificate Holder)
2. Manufactured for ENERGY NORTHWEST
(Name and Address of Purchaser or Owner)
3. Location of Installation COLUMBIA GENERATING STATION
(Name and Address)
4. Type SAEK99408 REV.0 BELOW BELOW - 2002
(drawing no.) (mat'l. spec. no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1971 WINTER 1971 2 -
(edition) (addenda date) (class) (Code Case No.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) - Revision - Date -
(no.)
7. Remarks BASE MATERIAL - SA479 TYPE 316 - TENSILE - 75,000
STUB END MATERIAL - SA479 TYPE 316 - TENSILE - 75,000
FLANGE MATERIAL - SA105 - TENSILE - 70,000
8. Nom. thickness (in.) - Min. design thickness (in.) - Dia. ID (ft & in.) - Length overall (ft & in.) -
9. When applicable, Certificate Holders' data reports are attached for each item of this report.

Part or Appurtenance Serial Number	National Board No. in Numerical Order	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) K99408-31-0001	-	(26)	
(2) K99408-31-0002	-	(27)	
(3) K99408-31-0003	-	(28)	
(4)		(29)	
(5)		(30)	
(6) <u>SIN K99408-31-0001</u>		(31)	
(7)		(32)	
(8)		(33)	
(9) <u>Subdup Bx 15</u>		(34)	
(10) <u>2122103</u>		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure - psi. Temp. - ° F Hydro. test pressure 425 at temp. 70 ° 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.

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

Certificate Holder's Serial No. K99408-31-0001**CERTIFICATE OF DESIGN**Design specifications certified by D.MURPHY P.E. State WA Reg. no. 12542
(when applicable)Design report* certified by _____ P.E. State _____ Reg. no. _____
(when applicable)**CERTIFICATE OF COMPLIANCE**We certify that the statements made in this report are correct and that this (these) BASE ASSEMBLIES
conforms to the rules of construction of the ASME Code, Section III, Division 1.NPT Certificate of Authorization No. N-1877 Expires Sep. 30, 2004
Anderson Greenwood CrosbyDate 20-MAR-02 Signed Wrentham, MA by D.E. TUN
(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 Massachusetts and employed by Factory Mutual Insurance Co. of Johnston, Rhode Island have inspected these items described in this Data Report on March 20, 20 02 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 3-20, 20 02Signed [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:** 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: 08/05/02
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-2B RHR-V-633	WPPSS * Borg Warner	RHR(1)-2B-P1 79966	N/A N/A	N/A N/A	1984 1983	Replacement	Yes, Code Class 2 Yes, Code Class 1

7. **Description Of Work Performed:** Replaced (modified) existing vent connection down stream of valve RHR-V-632. The replacement work was performed as follows:

- 1) Removed existing vent connection down stream of valve RHR-V-632.
- 2) Installed new piping material such as elbows, coupling and pipe.
- 3) Installed new valve RHR-V-633, Serial No 79966.
- 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 U bolts and jam nuts associated with new support.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the new valve RHR-V-633, Serial No 79966 was 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.
- 3) The new valve RHR-V-633, Serial No 79966 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements.
- 4) 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 ☐ None ☒
 Test Pressure: Psig Test Temperature: °F
 Component Design Pressure: Psig Temperature: °F

9. Remarks: See attached NPV-1 Code Data Report for the new valve RHR-V-633, Serial No 79966.

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 8/9/02 Date 8/9/02

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. 2-1681

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	(d) Drawing	(e) Class	(f) Nat'l	(g) Year
Series No.	Serial	Registration	No.		Bd. No.	Built
or Type	No.	No.				
(1) 1500#	79951 thru	N/A	76590-2	1	N/A	1983
(2)	79970					
(3)						
(4)						
(5)	RHR-V-633, SIN 79966					
(6)						
(7)						
(8)						
(9)						
(10)						

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

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

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

(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

FORM NPV-1 (Back)

[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.

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

Signed Nuclear Valve Div., Borg Warner by James R. Smith
(In Certificate Holder)

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

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 1.2.7/29 1933

127-CA AIR 2/16: ~~REDACTED~~



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

1. Owner: Energy Northwest

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

Date: 01/08/03

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 Winter 1973 Addenda, Code Case: None

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-2A	WPPSS *	RHR(1)-2A-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR-V-753	79963	Borg Warner	N/A	N/A	1983	Replacement	Yes, Code Class 1
RHR-V-754	79965	Borg Warner	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced (modified) existing vent connection down stream of valve RHR-V-739. The replacement work was performed as follows:

- 1) Removed existing vent connection down stream of valve RHR-V-739.
- 2) Installed new piping material such as elbows, couplings and pipe.
- 3) Installed new valve RHR-V-753, Serial No 79963.
- 4) Installed new valve RHR-V-754, Serial No 79965.
- 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 U bolts and jam nuts associated with new support.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the new valve RHR-V-753, Serial No 79963 and RHR-V-754, Serial No 79965 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.
- 3) The new valve RHR-V-753, Serial No 79963 and RHR-V-754, Serial No 79965 are certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements.
- 4) ASME Section III, Code Class 1 valves for ASME Section III, Code Class 2 application.



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 NPV-1 Code Data Report for the following replacement valves:

EPN No	Serial No
RHR-V-753	79963
RHR-V-754	79965

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 1/8/03

Date 1/8/03

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. 2-1682

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
Ed. No.(g) Year
Built

(1)	1500#	79951 thru	N/A	76590-2	1	N/A	1983
(2)		79970					
(3)							
(4)							
(5)		RHR-V-753, S/N 79963					
(6)							
(7)		RHR-V-754, S/N 79965					
(8)							
(9)							
(10)							

The valves are designed to handle a fluid media which includes steam, water condensate, hot water, etc., associated with a PWR and BWR. The temperature pressure rating of the media is stated below.

5. (Brief description of service for which equipment was designed)
6. Design Conditions 3600 psi 100 °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 LX20'	Stellite #6	Rex Precision	
1T01, 1W10, 5F32			
(b) Forgings			
Body-Code 1V46	SA 105	Kawaguchi	

(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

127-CA-NB 7669 . **RECEIVED**

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 Atmosphere Control (CAC) 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
CAC-HR-1A	Air Products	76-129-3	5209	N/A	1977	Replacement	Yes, Code Class 2

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

- 1) Removed existing rupture disc from CAC-RD-1A.
- 2) Performed VT-3 visual examination on the existing studs for CAC-RD-1A bolted joint. VT-3 visual examination results acceptable.
- 3) Performed VT-3 visual examination on the existing nuts for CAC-RD-1A bolted joint. VT-3 visual examination results acceptable.
- 4) Installed new rupture disc in CAC-RD-1A.
- 5) Reinstalled VT-3 visually examined existing studs for CAC-RD-1A bolted joint.
- 6) Reinstalled VT-3 visually examined existing nuts for CAC-RD-1A bolted joint.
- 7) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of CAC-RD-1A 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 ☐

Test Pressure: 38.7 Psig

Test Temperature: 78° F

Component Design Pressure: 50 Psig

Temperature: 350° 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

11/13/01

Date

11/13/01

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 10-9-01 to 12-6-01 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. East

Inspector's Signature

Commissions

7486 W / 7486 N I

National Board, State, and Endorsements

Date

12-6-01

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: 08/05/02

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:** Fuel Pool Cooling (FPC) 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
FPC(1)-1	WPPSS *	FPC(1)-1-P1	N/A	N/A	1983		Yes, Code Class 3
FPC-RV-117A	Anderson Greenwood	98-09537	N/A	N/A	1999	Replaced	Yes, Code Class 3
FPC-RV-117A	Loneragan	137916-1-1	N/A	N/A	1994	Replacement	Yes, Code Class 3

7. **Description Of Work Performed:** Replaced existing relief valve FPC-RV-117A. The replacement work was performed as follows:

- 1) Removed existing relief valve FPC-RV-117A, Serial No 98-09537.
- 2) Installed replacement relief valve FPC-RV-117A, Serial No 137916-1-1.
- 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 FPC-RV-117A, Serial No 137916-1-1 is Fuel Pool Cooling (FPC) piping system FPC(1)-1-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 FPC-RV-117A, Serial No 137916-1-1 is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1971 Addenda requirements.

ENERGY NORTHWEST

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

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

9. Remarks: See attached NV-1 Code Data Report for the replacement relief valve FPC-RV-117A, Serial No 137916-1-1.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 8/9/02 Date 8/9/02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 8/21/01 to 8/20/02 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. E. T. T. Commissions 7486W / 7486 NE
 Inspector's Signature National Board, State, and Endorsements
 Date 8/20/02

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

- Manufactured and certified by Kirkle Industries, Inc.
Lonergan Valve Division, 8222 Bluffton Road, Fort Wayne, IN 46809 PLAN No. 2-1724
(Name and address of NV Certificate Holder)
- Manufactured for Washington Public Power Supply System, Accts. Pay., MD 055, P.O. Box 968, Richland, WA 99352-0968
(Name and address of Purchaser)
- Location of installation Washington Public Power Supply System, WNP-2 OPS WHE, Complex WHE #1, North Power Plant Loop, Richland, WA 99352
(Name and address)
- Valve NJL14J-021-000150 Orifice size 0.312 Nom. Inlet size 3/4 Outlet size 1
(Model no., series no.) (In.) (In.) (In.)
- ASME Code, Section III, Division 1: 1971 Winter 1971 3 N/A
(Edition) (Addenda date) (Class) (Code Case no.)
- Type Spring 150 N/A 400° F 225 at 33 °F
(Spring, pilot or pump operated) (Set pressure, psig) (Blowdown, psi) (Rated temp.) (Hydro. test, psig, inlet)
- Identification 137916-1-1 through 137916-1-2 N/A A930298 Rev. 1 N/A 1994
(Cert. Holder's serial no.) (ICRN) (Drawing no.) (Nat'l. Bd. no.) (Year built)
- Control ring settings N/A
- Pressure retaining items: FPC-RV-117A, SN 137916-1-1
Relief Sup 5
8/1/02

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
XXXX Compression Screw	34601	SA-479 TY 316	75 ksi
Bonnet XXXXX(Assy.)	A6139/C469 / A6139/C476 /	SA-216 WCB	70 ksi
XXXXXXXXXXXX	98848/701093 / 841TNT/M25024 Code	ARP SA-479 TY 316 / SA-105	75 ksi / 70 ksi
XXXXX Guide Pin	35486	SA-479 TY 316	75 ksi
Disk	9F6313	SA-479 TY 316	75 ksi
XXXXXXXXXXXX Base (Assy.)	11579-13, -17 /	SA-351 CF8M	70 ksi
XXXXXXXXXXXX	38062 / 841TNT	SA-479 TY 316 / SA-105	75 ksi / 70 ksi
XXXXXX Gag Plug Screw	39883	SA-479 TY 316	75 ksi
Spring	8F5901	A-313 TY 316	*
XXXXXX Spring Step	30340	SA-479 TY 316	75 ksi
XXXXXXXXXXXX Cap	701632	SA-479 TY 316	75 ksi
Stem	9E6313	SA-479 TY 316	75 ksi
10. Relieving capacity	<u>8,900 lb./hr. (17.8 GPM)</u> @ <u>107</u> <u>overpressure as certified by the National Board</u> <u>01/25/85</u> <small>(Steam or fluid, lb/hr) (psig) (Date)</small>		

11. Remarks: * Spring exempt from material requirements of ND-2000 but meets design requirements of ND-3595.

CERTIFICATION OF DESIGN

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

CERTIFICATE OF COMPLIANCE

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

NV Certificate of Authorization No. N-2853 Expires November 18, 1994
Date 5-23-94 Name Kirkle Industries, Inc. Lonergan Valve Division Signed Debra A. Zittel
(NV Certificate Holder) (Authorized representative)

* Supplemental information in form of tests, 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.

5/23/94

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 HSB & I Co. of Hartford, CT have inspected the valve described in this Data Report on

MAY 25, 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 5-25-94 Signed Richard L. Gray Commissions NA7444 (NBIA), INC 8YD
(Authorized Inspector) (Nat'l. Bd. (incl. endorsement) and state or prov. and no.)

026067000017

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: 08/08/02

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:** Fuel Pool Cooling (FPC) 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
FPC(1)-1	WPPSS *	FPC(1)-1-P1	N/A	N/A	1983	-----	Yes, Code Class 3
FPC-RV-117B	Anderson Greenwood	98-09536	N/A	N/A	1999	Replaced	Yes, Code Class 3
FPC-RV-117B	Loneragan	137916-1-2	N/A	N/A	1994	Replacement	Yes, Code Class 3

7. **Description Of Work Performed:** Replaced existing relief valve FPC-RV-117B. The replacement work was performed as follows:

- 1) Removed existing relief valve FPC-RV-117B, Serial No 98-09536.
- 2) Installed replacement relief valve FPC-RV-117B, Serial No 137916-1-2.
- 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 FPC-RV-117B, Serial No 137916-1-2 is Fuel Pool Cooling (FPC) piping system FPC(1)-1-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 FPC-RV-117B, Serial No 137916-1-2 is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1971 Addenda requirements.

ENERGY NORTHWEST

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

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

9. Remarks: See attached NV-1 Code Data Report for the replacement relief valve FPC-RV-117B, Serial No 137916-1-2.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Date

8/9/02

Date

8/9/02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/21/01 to 8/20/02 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. Terto
Inspector's Signature

Commissions

7486 u / 7486 vi
National Board, State, and Endorsements

Date

8/20/02

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

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

Pg. 1 of 2

Kirkle Industries, Inc.

1. Manufactured and certified by Loneragan Valve Division, 8272 Bluffton Road, Fort Wayne, IN 46809 **PLAN NO. 2-1725**

(Name and address of NV Certificate Holder)

2. Manufactured for Washington Public Power Supply System, Accts. Pay, MD 055, P.O. Box 968, Richland, WA 99352-0968

(Name and address of Purchaser)

3. Location of installation Washington Public Power Supply System, WPP-2 OPS WUSE, Complex Whse #1, North Power Plant Loop,

(Name and address)

Richland, WA 99352

Valve NUL14J-021-000150 Orifice size 0.312 Nom. inlet size 3/4 Outlet size 1

(model no., series no.)

(in.)

(in.)

(in.)

4. ASME Code, Section III, Division 1: 1971 Winter 1971 3 N/A

(edition)

(addenda date)

(class)

(Code Case no.)

5. Type Spring 150 N/A 400° F 725 at 33 *F

(spring, pilot or power operated)

(test pressure, psig)

(blowdown, psig)

(rated temp.)

(hydro. test, psig, inlet)

at

*F

7. Identification 137916-1-1 through 137916-1-2 N/A A930298 Rev. 1 N/A 1994

(Cert. Holder's serial no.)

(CRN)

(drawing no.)

(Nat'l. Bd. no.)

(year built)

8. Control ring settings N/A

9. Pressure retaining items:

FPC-RV-1178, SIN 137916-1-2

Rec'dip Sup 5
8/1/02

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
XXXX Compression Screw	34601	SA-479 TY 316	75 ksi
Bonnet XXXXXX (Assy.)	A6139/C469 / A6139/C476 /	SA-216 WCB	70 ksi
XXXXXXXXXX	98848/701093 / 841TNT/M25024 Code	ARPN SA-479 TY 316 / SA-105	75 ksi / 70 ksi
XXXXXX Guide Pin	35486	SA-479 TY 316	75 ksi
Disk	9E6313	SA-479 TY 316	75 ksi
XXXXXXXXXX Base (Assy.)	11579-13, -17 /	SA-351 CF8M	70 ksi
XXXXXXXXXX	38062 / 840TNE	SA-479 TY 316 / SA-105	75 ksi / 70 ksi
XXXXXX Gag Plug Screw	39883	SA-479 TY 316	75 ksi
Spring	8E5901	A-313 TY 316	*
XXXXXX Spring Step	30340	SA-479 TY 316	75 ksi
XXXXXXXXXX Cap	701632	SA-479 TY 316	75 ksi
Stem	9E6313	SA-479 TY 316	75 ksi

10. Relieving capacity 8,900 lb./hr. (17.8 GPM) @ 107 overpressure as certified by the National Board 01/25/85

(steam or fluid, lb/hr)

(psig)

(date)

11. Remarks: * Spring exempt from material requirements of ND-2000 but meets design requirements of ND-3595.

CERTIFICATION OF DESIGN

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

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

CERTIFICATE OF COMPLIANCE

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

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

Date 5-23-94 Name Kirkle Industries, Inc. Lonergan Valve Division Signed Debra A. Zitzel

(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.

5/30/94

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

MAY 25, 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 5-25-94 Signed [Signature] Commissions NA7444(NBIA), IND 840
(Authorized Inspector) (Not'l. Bd. (incl. endorsement) and state or prov. and no.)

026067000017



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: 02/22/03

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	WPPSS *	RCC(5)-2-P1	N/A	N/A	1983	-----	Yes, Code Class 3
RCC-RV-34A	Anderson Greenwood	98-09538	N/A	N/A	1999	Replaced	Yes, Code Class 3
RCC-RV-34A	Loneragan	137916-2-1	N/A	N/A	1994	Replacement	Yes, Code Class 3

7. Description Of Work Performed: Replaced existing relief valve RCC-RV-34A. The replacement work was performed as follows:

- 1) Removed existing relief valve RCC-RV-34A, Serial No 98-09538.
- 2) Installed replacement relief valve RCC-RV-34A, Serial No 137916-2-1.
- 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 RCC-RV-34A, Serial No 137916-2-1 is Reactor 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 relief valve RCC-RV-34A, Serial No 137916-2-1 is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1971 Addenda requirements.
- 4) Lonergan relief valves were being manufactured by Anderson Greenwood.



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 NV-1 Code Data Report for the replacement valve RCC-RV-34A, Serial No 137916-2-1.

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 2/22/03

Date 2/22/03

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/21/01 to 3/6/03 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

7486.00/7486. N.E. W.S.
 National Board, State, and Endorsements

Date 3/6/03

PLAN No. 2-1740

Pg. 1 of 2

1. Manufactured and certified by Loneragan Valve Division, 8722 Bluffton Road, Fort Wayne, IN 46809
(Name and address of NV Certificate Holder)

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

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

4. Valve NUL14-J-D21-DG0265 Orifice size 0.312 Nom. inlet size 3/4" Outlet size 1"
(model no., series no.) (in.) (in.) (in.)

5. ASME Code, Section III, Division 1: 1971 Winter 1971 3 N/A
(edition) (addenda date) (class) (Code Case no.)

6. Type Spring 265 N/A 100° F 397 at 33 *F
(spring, pilot or power operated) (set pressure, psig) (blowdown, psi) (rated temp.) (hydra. test, psig, inlet)

7. Identification	137916-2-2 (Cert. Holder's serial no.)	N/A (CRN)	A930298 Rev. 1 (Drawing no.)	N/A (Mat'l. Ed. no.)	1994 (Year built)
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8. Control ring settings N/A

9. Pressure retaining items:

Valve RCC-RV-34A, SIN 137916-2-1

Tensile 242403

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
X00000 Compression Screw	34601	SA-479 TY 316	75 ksi
Bonnet X00000 (Assy.)	A6139-C472, -C473 /	SA-216 WCB	70 ksi
X00000	701093 / 841TNT	SA-479 TY 316 / SA-105	75 ksi / 70 ksi
X00000 Guide Pin	35486	SA-479 TY 316	75 ksi
Disk	9E6313	SA-479 TY 316	75 ksi
Spring X00000 Step	30340	SA-479 TY 316	75 ksi
X00000 Base Assy.	J1579-6, -16 /	SA-351 CF8M	70 ksi
X00000	36560-6/38062 / 840TNE	SA-479 TY 316 / SA-105	75 ksi / 70 ksi
Spring	8F6170	A-313 TY 316	*
X00000 Gag Plug Screw	39883	SA-479 TY 316	75 ksi
X00000 Cap	701632	SA-479 TY 316	75 ksi
Stem	9E6313	SA-479 TY 316	75 ksi

10. Relieving capacity 11,800 lb./hr. (23.6 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 ND-2000 but meets design requirements of ND-3595.

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

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

NV Certificate of Authorization No. N-2853 Expires November 18, 1994
Date 5-24-94 Name Kunkle Industries, Inc.
Loneragan Valve Division Signed Debra A. Wetzel
(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 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 MAY 23 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 5-24-94 Signed [Signature] Commissions 113744(NBIB), IND 84D
(Authorized Inspector) (Nat'l Bd. and endorsement) and state or prov. and no.

026067000149

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:** 08/09/02**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 Closed Cooling (RCC) System5. (a) **Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda, Code Case: None(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCC(5)-2	WPPSS * Anderson Greenwood Lonergan	RCC(5)-2-P1	N/A	N/A	1983		Yes, Code Class 3
RCC-RV-34B		98-09539	N/A	N/A	1999	Replaced	Yes, Code Class 3
RCC-RV-34B		137916-2-2	N/A	N/A	1994	Replacement	Yes, Code Class 3

7. **Description Of Work Performed:** Replaced existing relief valve RCC-RV-34B. The replacement work was performed as follows:

- 1) Removed existing relief valve RCC-RV-34B, Serial No 98-09539.
- 2) Installed replacement relief valve RCC-RV-34B, Serial No 137916-2-2.
- 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 RCC-RV-34B, Serial No 137916-2-2 is Reactor 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 relief valve RCC-RV-34B, Serial No 137916-2-2 is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1971 Addenda requirements.

ENERGY NORTHWEST

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

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

9. Remarks: See attached NV-1 Code Data Report for the replacement valve RCC-RV-34B, Serial No 137916-2-2.

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 8/9/02 Date 8/9/02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/2/01 to 8/2/02 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 N/7486 NF
 Inspector's Signature National Board, State, and Endorsements

Date 8/2/02

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

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

Pg. 1 of 2

Kirkle Industries, Inc.

1. Manufactured and certified by Lonergan Valve Division, 8272 Bluffton Road, Fort Wayne, IN 46809

PLAN NO. 2-1748

(Name and address of NV Certificate Holder)

2. Manufactured for Washington Public Power Supply System, Accts. Pay, MD 055, P.O. Box 968, Richland, WA 99352-0968

(Name and address of Purchaser)

3. Location of installation Washington Public Power Supply System, WNP-2 OPS MSE Complex, Whse. #1, North Power Plant Loop, Richland, WA 99352

(Name and address)

4. Valve NJL141-D21-DG0265 Orifice size 0.312 Nom. Inlet size 3/4" Outlet size 1"

(model no., series no.)

(in.)

(in.)

(in.)

5. ASME Code, Section III, Division 1: 1971 Winter 1971 3 N/A

(edition)

(addenda date)

(class)

(Code Case no.)

6. Type Spring 265 N/A 100° F 397 at 33 °F

(spring, pilot or power operated)

(set pressure, psig)

(blowdown, psi)

(rated temp.)

(hydro. test, psig, inlet)

at

°F

7. Identification 137916-2-1 through 137916-2-2 N/A A930298 Rev. 1 N/A 1994

(Cert. Holder's serial no.)

(ICRN)

(drawing no.)

(Mat'l. Bd. no.)

(year built)

8. Control ring settings N/A

9. Pressure retaining items:

RCC-RV-34 B, SIN 137916-2-2

Serial No. or
IdentificationMat'l. Spec.,
Including Type or GradeTensile
Strength

XS0000 Compression Screw	34601	SA-479 TY 316	75 ksi
Bonnet XS0000 (Assy.)	A6139-C472, -C473 /	SA-216 WCB	70 ksi
XS0000 XS0000	701093 / 841TNT	SA-479 TY 316 / SA-105	75 ksi / 70 ksi
XS0000 Guide Pin	35486	SA-479 TY 316	75 ksi
Disk	9E6313	SA-479 TY 316	75 ksi
Spring XS0000 Step	30340	SA-479 TY 316	75 ksi
XS0000 XS0000 Base Assy	11579-6, -16 /	SA-351 CERN	70 ksi
XS0000	36560-6/38062 / 840TNE	SA-479 TY 316 / SA-105	75 ksi / 70 ksi
Spring	8E6170	A-313 TY 316	*
XS0000 Gag Plug Screw	39883	SA-479 TY 316	75 ksi
XS0000 Cap	701632	SA-479 TY 316	75 ksi
Stem	9E6313	SA-479 TY 316	75 ksi

10. Relieving capacity 11,800 lb./hr. (23.6 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 ND-2000 but meets design requirements of ND-3595.

CERTIFICATION OF DESIGN

Design Specification certified by D. Murphy P.E. State WA Reg. no. 12542Design 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, 1994Date 5-24-94 Name Kirkle Industries, Inc. Signed Debra A. Wetzel

(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 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

MAY 23 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 5-24-94 Signed Richard P. Dray Commissions NIB 7494 (NIBIN), Ind 84D
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

UIC606/000144

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, 1974 Edition with Summer 1975 Addenda, Code Case: None
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 08/23/01
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
MS-V-706A	Borg Warner	19814	N/A	N/A	1977	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Performed on-line leak seal for packing leak for valve MS-V-706A. The work was performed as follows:

- 1) Drilled and tapped one (1) hole into the valve packing chamber area to install 5/16" injector (shutoff) adapter. See Note 1.
- 2) Installed one (1) 5/16" injector (shutoff) adapter in the valve packing chamber area. See Note 1.

NOTES -

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

ENERGY NORTHWEST

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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Date

8/23/01

Date

8/23/01

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 _____ and employed by _____

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

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

Not Required - Replacement 1" NPS And Smaller

Inspector's Signature

Commissions

National Board, State, and Endorsements

Date

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest**Address:** Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352**Date:** 08/23/01**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 Recirculation Cooling (RRC) System5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: None(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RRC-P-1B Mechanical Seal* Mechanical Seal	Bingham Bingham Bingham	210100 (B-2-1035) N01-1* 11N92-1	135 473* 1078	N/A N/A N/A	1974 1981* 1983	----- Replaced Replacement	Yes, Code Class 1 No, Code Class 1* Yes, Code Class 1

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

- 1) Removed existing upper mechanical seal, Serial No N01-1.
- 2) Installed spare replacement upper mechanical seal, Serial No 11N92-1.
- 3) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

NOTES -

- 1) The existing pump RRC-P-1B is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 2) The replacement mechanical seal, Serial No 11N92-1 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with 1971 Addenda requirements.
- 3) * The origin of the replaced mechanical seal, Serial No N01-1 is as follows:
Mechanical seal, Serial No N01-1 is from a pump, Serial No 00N04, National Board No 473. This pump was furnished by Bingham Willamette to Black Fox plant. This plant was later cancelled. There is no ASME Code stamping nor ASME Code Data Report for this seal since it was part of an ASME Section III, Code Class 1 stamped pump, Serial No 00N04, National Board No 473.

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: 528.9° F
 Component Design Pressure: 1650 Psig Temperature: 575° F

9. Remarks: See attached N-2 Code Data Report for the spare replacement mechanical seal, Serial No 11N92-1.

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 8/23/01

Date 8/23/01

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 7/24/01 to 8/27/01 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.

[Signature]
Inspector's Signature

Commissions 74860 / 7488 NJS IS
National Board, State, and Endorsements

Date 8/27/01

PLAN NO. 2-1769

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

As required by the Provisions of the ASME Code Rules

Quincy Supp
8/23/01

1. (a) Manufactured by Bingham-Willamette Company, Portland, OR
(Name and address of Manufacturer of part)
(b) Manufactured for Washington Public Power Supply System, Richland, WA
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part 11N92 - 1 Nat'l Bd. No. 1078
- (a) Constructed According to Drawing No. J1756 Drawing Prepared by Bingham-Willamette Company
(b) Description of Part Inspected Mechanical Seal type RV875B-2
(c) Applicable ASME Code: Section III, Edition 1971, Addenda date 1971, Case No. NONE Class 1
3. Remarks: To prevent liquids from escaping from pump, PB Parts consist of:
(Brief description of service for which component was designed)
a.) Seal Holder SN 149285-1b.) Gland-Upper Seal SH 1495283-1
Seal Hydrotested at 2575 PSI

Note: Items 4-18 not applicable.

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

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

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

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A
Stress analysis report on file at N/A
Design specifications certified by N/A Prof. Eng. State Reg. No.
Stress analysis report certified by N/A Prof. Eng. State Reg. No.

CERTIFICATE OF SIOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Oregon and employed by Department of Commerce have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on NOV 21 1983 and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.
By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date NOV 21 1983
Inspector's Signature [Signature] Commission LB 8036 OR 520
National Board, State, Province and No.

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

S.O. 11N92-1
ITEM 1N2 Code Data Report
PAGE 2

FORM N-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell Material T.S. Nominal Thickness in. Corrosion Allowance in. Dia. ft. in. Length ft. in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams Long H.T. R.T. Efficiency %

Girth H.T. R.T. No. of Courses

6. Heads (a) Material T.S. (b) Material T.S.
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)
(Top, bottom, ends)

(a)

(b)

If removable, bolts used (Material, Spec. No., T.S., Size, Number) Other fastening (Describe or attach sketch)

7. Jacket Closure (Describe as edge and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)

8. Design pressure 1650 psi at 575 °F Drop Weight lb
Charpy Impact ft-lb
at temp. of °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets Stationary, Material Dia. Thickness in. Attachment (Welded, Bolted)
(Kind & Spec. No.) (Subject to pressure)

Floating, Material Dia. Thickness in. Attachment

10. Tubes Material O.D. in. Thickness in. Number Type (St. or U)
Inches or gage

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell Material T.S. Nominal Thickness in. Corrosion Allowance in. Dia. ft. in. Length ft. in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams Long H.T. R.T. Efficiency %

Girth H.T. R.T. No. of Courses

13. Heads (a) Material T.S. (b) Material T.S.

Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)

(a) Top, bottom, ends

(b) Channel

If removable, bolts used (a) (b) (c) Other fastening (Describe or attach sketch)

14. Design pressure psi at °F Drop Weight lb
Charpy Impact ft-lb
at temp. of °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets Number Size Location

16. Nozzles

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached

17. Inspection Manholes, No. Size Location

Openings Handholes, No. Size Location

Threaded, No. Size Location

18. Supports Skirt (Yes or No) Lugs (Number) Legs (Number) Other (Describe) Attached (Where & How)

If Postweld Heat-Treated

ENERGY NORTHWEST

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

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

Date: 08/23/01
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
MS(1)-4A MS-V-706A MS-V-706A	WPPSS * Borg Warner Borg Warner	MS(1)-4A-P1 19814 16872	N/A N/A N/A	N/A N/A N/A	1983 1977 1977	----- Replaced Replacement	Yes, Code Class 2 Yes, Code Class 1 Yes, Code Class 2

7. Description Of Work Performed: Replaced existing valve MS-V-706A. The replacement work was performed as follows:

- 1) Removed existing globe valve MS-V-706A, Serial No 19814.
- 2) Installed replacement gate valve MS-V-706A, Serial No 16872.
- 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 gate valve MS-V-706A, Serial No 16872 was installed is Main Steam (MS) piping system MS(1)-4A-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 gate valve MS-V-706A, Serial No 16872 is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The existing globe valve MS-V-706A, Serial No 19814 is 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 ☐ 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 MS-V-706A, Serial No 16872.

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 8/23/01

Date 8/23/01

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 _____ 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 _____

215 14929

*Modified NPV-1 See 8a Remarks

OB135
PLAN NO. 2-177C

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 Nuclear Valve Div., Borg Warner, 7500 Tyrona Ave., Van Nuys, Calif.
(Name and Address of N Certificate Holder)
2. Manufactured for Bovee & Crail/G.E.I., P.O. Box 1040, Richland, Washington 99362
(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 Gate Valve Nominal Inlet Size 1 Outlet Size 1
(Inch) (Inch)

(a) Model No.	(b) N Certificate Holder's	(c) Canadian	(d) Drawing	(e) Class	(f) Nat'l	(g) Year
Series No.	Serial	Registration	No.		Bd. No.	Built
or Type	No.	No.				
	16863 thru 16872		76700	2		1977
(1)						
(2)						
(3)						
(4)						
(5)						
(6)						
(7)						
(8)						
(9)						
(10)						

VALVE MS-V-706A, S/N 16872

Subcrip Supp
8/23/01

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 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			
Gate-Code 1P14	SA296 Type 630		Mat'l Spec. was SA564
Castin.-75347		Rex Precision	
Machined-75346		NV Division	
Stem Code 1N54	SA564 Type 630		
Bar Stock		Jorgensen Co.	
Machined-75323		NV Division	
(b) Forgings			
Body-Code 1J60; 1K69	SA105		
Forging-70453		Pacific Forge	
Machined-70476		NV Division	
Assembly-75348		NV Division	
Bonnet-Code 1M28	SA 105		
Forged Stock 73973-11		Compton Forge	
Machined 73973		NV Division	

11 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.

2 1 2 8 5 0 9 1 7

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. 1, Edition 1971.
Addenda Winter 1973, Code Case No. Date December 18, 1981
Signed Nuclear Valve Div., Borg Warner by [Signature]
(In Certificate Reason)
Our ASME Certificate of Authorization No. N-1256 to use the N symbol expires 10/27/84.
UN

Design information on file at NVD of Borg Warner, 7300 Tyrone Ave., Van Nuys, Ca. 91409
Stress analysis report (Class 1 only) on file at _____

Design specifications certified by (1) David J. Murphy
PE State Washington Reg. No. 12542
Stress analysis certified by (1) _____
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 Imberman's Mutual Casualty of Long Grove, Illinois have inspected the pump, or valve, described in this Data Report on December 18 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, Section II.

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 December 18 1981

Commissions P75 GA.
(Mar) Bg. Sess. Prev. and Nxt)

7.

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: 08/05/02

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 Oil (DO) 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
DO(1)-1-1B	WPPSS *	DO(1)-1B-P3	N/A	N/A	1983	-----	Yes, Code Class 3

7. Description Of Work Performed: Replaced U bolts for supports DO-2710-34 (3/4" DO-2712), DO-2710-34 (1" DO-2710) and DO-2708-31 (1" DO-2708). The replacement work was performed as follows:

- 1) Removed existing U bolts from the supports.
- 2) Installed replacement U bolts for the supports.
- 3) Installed replacement jam nuts for the supports.

NOTES -

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) ASME Section III, Code Class NF(3) for the support material.

ENERGY NORTHWEST

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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 8/9/02 Date 8/9/02

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: 08/05/02

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: Service Water (SW) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW(2)-2	WPPSS *	SW(2)-2-P1	N/A	N/A	1983	-----	Yes, Code Class 3

7. Description Of Work Performed: Replaced U bolt for support SW-4576-12 (1" SW). The replacement work was performed as follows:

- 1) Removed existing U bolt from the support.
- 2) Installed replacement U bolt for the support.
- 3) Installed replacement jam nuts for the support.

NOTES -

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) ASME Section III, Code Class NF(3) for the support material.

ENERGY NORTHWEST

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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 8/9/02 Date 8/9/02

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:** Service Water (SW) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda, Code Case: None
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 08/09/02

Sheet: 1 Of 1

Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW(22)-2UG	WPPSS *	SW(22)-2UG-P1	N/A	N/A	1983	-----	Yes, Code Class 3

7. **Description Of Work Performed:** Prefabricated spool piece for 18" Service Water (SW) Loop B return piping down stream of valve SW-V-12B. The prefabrication work was performed as follows:

- 1) Cut new replacement 18" pipe to the required length or longer.
- 2) Beveled pipe ends on as needed basis to the required configuration.
- 3) Drilled hole in the 18" pipe for installation of new replacement 3/4" sockolet.
- 4) Installed new replacement 3/4" sockolet.
- 5) Made required weld.
- 6) Performed visual examination on the final weld. Visual examination results acceptable.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The prefabricated spool piece was installed in accordance with ASME Section XI Plan No 2-1774.

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: ** VT-2 visual examination to confirm pressure boundary integrity of the joints was in accordance with ASME Section XI Plan No 2-1774.

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 8/9/02 Date 8/9/02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 7/8/02 to 8/21/02 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 NF
 Inspector's Signature National Board, State, and Endorsements
 Date 8/21/02



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

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

Date: 08/09/02

Sheet: 1 Of 1

Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW(22)-2UG	WPPSS *	SW(22)-2UG-P1	N/A	N/A	1983		Yes, Code Class 3

7. Description Of Work Performed: Replaced spool piece for 18" Service Water (SW) Loop B return piping down stream of valve SW-V-12B. The replacement work was performed as follows:

- 1) Removed existing section of 18" pipe with a through wall pin hole leak.
- 2) Beveled valve SW-V-12B cut end.
- 3) Performed magnetic particle (MT) examination on the beveled valve SW-V-12B end. The magnetic particle (MT) examination results acceptable.
- 4) Installed new section of 18" of pipe.
- 5) Completed the root pass on both the 18" circumferential butt welds.
- 6) Performed visual examination on the root pass on both the 18" circumferential butt welds. Visual examination results acceptable.
- 7) Performed magnetic particle (MT) examination on the root pass for both the welds. The magnetic particle (MT) examination results acceptable.
- 8) Completed both the 18" circumferential butt welds.
- 9) Performed visual examination on both the final 18" circumferential butt welds. Visual examination results acceptable.
- 10) Performed magnetic particle (MT) examination on both the final 18" circumferential butt welds. Magnetic particle (MT) examination results acceptable.
- 11) Made required socket welds.
- 12) Removed the ASME Code Name Plate from the existing pipe section by grounding off the tack welds.
- 13) Performed magnetic particle (MT) examination on the ground/prepped surfaces. The magnetic particle (MT) examination results acceptable.
- 14) 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 new spool piece was previously prefabricated in accordance with ASME Section XI Plan No 2-1773.
- 3) The magnetic particle (MT) examination on the root pass for both the 18" welds was performed in accordance with the requirements of ASME Section III, Code Class 3, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 4) The magnetic particle (MT) examination on the final 18" circumferential butt welds was performed in accordance with the requirements of ASME Section III, Code Class 3, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 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 ☒ None ☐

Test Pressure: 210 Psig

Test Temperature: 67° F

Component Design Pressure: 309 Psig

Temperature: 150° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 8/9/02

Date 8/9/02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 7/8/02 to 8/24/02 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 NT
National Board, State, and Endorsements

Date 8/24/02

ENERGY NORTHWEST

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

1. Owner: Energy Northwest

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

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

SUMMER KS

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-V-12B	Velan	77G536	N/A	N/A	1977	Repaired	Yes, Code Class 3

7. Description Of Work Performed: Repaired by welding wasted areas on the inside (ID) surfaces of valve SW-V-12B outlet. The repair work was performed as follows:

- 1) Prepped wasted areas by grinding to provide access for welding.
- 2) Weld repaired (weld built up) the wasted areas.
- 3) Grinded/blended the weld repaired areas flush with the adjacent base metal to match the contour of the inside surfaces.
- 4) Performed visual examination on the weld repaired areas. Visual examination results acceptable.
- 5) Performed magnetic particle (MT) examination on the weld repaired areas. Magnetic particle (MT) examination results acceptable.

ENERGY NORTHWEST

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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ None ☐
 Test Pressure: 210 Psig Test Temperature: 67° F
 Component Design Pressure: 300 Psig Temperature: 150° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this repaired 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

8/9/02

Date

8/9/02

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 7/9/02 to 8/21/02 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. Fante
Inspector's Signature

Commissions

748610/7486 NIT
National Board, State, and Endorsements

Date

8/21/02

ENERGY NORTHWEST

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

1. **Owner:** Energy Northwest

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

2. **Plant:** Columbia Generating Station

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

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

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

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

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

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

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

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

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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW(22)-2	WPPSS *	SW(22)-2-P1	N/A	N/A	1983	-----	Yes, Code Class 3

7. **Description Of Work Performed:** Replaced existing pipe nipple associated with valve CCH-V-28B. The replacement work was performed as follows:

- 1) Removed existing pipe nipple.
- 2) Installed replacement pipe nipple.
- 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 is Service Water (SW) piping system SW(22)-2-P1. The Control Room Chilled Water (CCH) piping material and components were installed in accordance with ASME Section XI program using ASME Code Stamped piping system SW(22)-2-P1.

ENERGY NORTHWEST

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

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

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 8/9/02

Date 8/9/02

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 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 Instrument (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)-4S-X84b	JCI	PI(1)-4S-X84b	N/A	N/A	1983	-----	Yes, Code Class 2
PI-VX-269	Target Rock	19	N/A	N/A	1992	Replaced	Yes, Code Class 2
PI-VX-269	Target Rock	22	N/A	N/A	1998	Replacement	Yes, Code Class 2

7. Description Of Work Performed: Replaced existing valve PI-VX-269. The replacement work was performed as follows:

- 1) Removed existing valve PI-VX-269, Serial No 19.
- 2) Installed replacement piping material such as coupling, plate and pipe.
- 3) Installed new replacement valve PI-VX-269, Serial No 22.
- 3) Made required welds.
- 4) Performed visual examination on the final welds. Visual examination results acceptable.
- 5) Performed liquid penetrant (PT) examination on the final welds. Liquid penetrant (PT) examination results acceptable.
- 6) Installed support material such as tube steel, angle iron, plate.
- 7) Made required welds for the support material.
- 8) Performed visual examination on the final welds. Visual examination results acceptable.
- 9) Installed additional support material such as U bolts, jam nuts.

NOTES -

- 1) The existing ASME Code Stamped instrument system in which the replacement valve PI-VX-269, Serial No 22 was installed is Process Instrument (PI) system PI(1)-4S-X84b. This process instrument system is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1975 Addenda requirements.
- 2) The replacement valve PI-VX-269, Serial No 22 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1975 Addenda requirements.


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 NPV-1 Code Data Report for the replacement valve PI-VX-269, Serial No 22.

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

7/8/03

Date

7/8/03

CERTIFICATE OF INSERVICE INSPECTION

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

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

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

Not Required - Replacement 1" NPS And Smaller

Inspector's Signature

Commissions

National Board, State, and Endorsements

Date

PLAN No. 2-1777

FORM NPV-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES*
As Required by the Provisions of the ASME Code, Section III, Division 1

Pg. 1 of 1

1. Manufactured and certified by Target Rock Corp.: 1966E Broadhollow Rd.: E. Farmingdale, NY 11735
(name and address of N Certificate Holder)
2. Manufactured for Washington Public Power Supply System; Richland, WA 99352
(name and address of Purchaser)
3. Location of installation WNP-2; North Power Plant Loop; Richland, WA 99352
(name and address)
4. Model No., Series No., or Type 79TT-001 Drawing 79TT-001 Rev. J CRN N/A
5. ASME Code, Section III, Division 1: 1974 Winter 1975 2 None
(edition) (addenda date) (class) (Code Case no.)
6. Pump or valve Valve Nominal inlet size 1 Outlet size 1
(in.) (in.)
7. Material: Body SA182 F316L Bonnet SA479 316 Disc SA479 316 Bolting N/A

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disc Serial No.
21	N/A	4727A	3913	1115
22		4779A	3912	1100

VALVE PI-VX-269, SIN 22

Quidip Sinc's
6/21/03

* 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.

FORM NPV-1 (BACK - Pg. 2 of 2)

8. Design conditions 45 psi 340 °F or valve pressure class N/A (1)
(pressure) (temperature)
9. Cold working pressure 1545 psi at 100 °F
10. Hydrostatic test 2345 psi. Disc differential test pressure N/A psi
11. Remarks: _____

CERTIFICATION OF DESIGN

Design Specification certified by S. Fox P.E. State WA Reg. No. 16168
Design Report certified by Not Applicable P.E. State - Reg. No. -

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-1947 Expires 12/12/98

Date 4/9/98 Name Target Rock Signed [Signature]
(N Certificate Holder) R. E. Glazier, Manager, Q.E.
(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 of Province of New York and employed by Commercial Union Ins. of Boston, MA have inspected the pump, or valve, described in this Data Report on 4/9/98 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 4/9/98 Signed [Signature] Commissions N. Y. STATE COMMISSION NO. 2288
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)
ALSO COMMISSIONED IN PENN., OHIO & CO.NN.



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: 07/08/03

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 Instrument (PI) 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
D-220-25.0-SR-14 [PI(1)-4S-X84b]	JCI	D-220-25.0-SR-14 [PI(1)-4S-X84b]	N/A	N/A	1983	-----	Yes, Code Class 3

7. Description Of Work Performed: Replaced existing tubing material associated with valve PI-VX-269. The replacement work was performed as follows:

- 1) Removed existing tubing material.
- 2) Installed replacement tubing material.
- 3) Made required welds.
- 4) Performed visual examination on the final welds. Visual examination results acceptable.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 7/8/03 Date 7/8/03

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 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: 02/27/03

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 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 Serial No	PT Results	Final Disposition
1	New Serial No - N/A (Scrapped) Old Serial No N93184-41-0099	Reject	Scrapped - See Note 1
2	New Serial No N97498-47-0120 Old Serial No N93184-47-0120	Accept	Accept - See Note 1
3	New Serial No N97498-47-0123 Old Serial No N93184-47-0123	Accept	Accept - See Note 1
4	New Serial No N97498-50-0149 Old Serial No N93184-50-0149	Accept	Accept - See Note 1
5	New Serial No N97498-50-0150 Old Serial No N93184-50-0150	Accept	Accept - See Note 1
6	New Serial No - N/A (Scrapped) Old Serial No N93184-51-0153	Reject	Scrapped - See Note 1
7	New Serial No - N/A (Scrapped) Old Serial No N93184-51-0157	Reject	Scrapped - See Note 1

Continued on Sheet 2 of 2



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 2/27/03 Date 2/27/03

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 10/28/02 to 3/6/03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions 7486.00/7486 NIF NS
 Inspector's Signature National Board, State, and Endorsements

Date 3/6/03



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**

Date: 02/27/03

Sheet: 2 Of 2

Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare 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 Serial No	PT Results	Final Disposition
8	New Serial No N97498-53-0167 Old Serial No N93184-53-0167	Accept	Accept - See Note 1
9	New Serial No - N/A (Scrapped) Old Serial No N93184-54-0168	Reject	Scrapped - See Note 1
10	New Serial No - N/A (Scrapped) Old Serial No N93184-56-0174	Reject	Scrapped - See Note 1

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 results acceptable for five (5) spare nozzles out of total of ten (10) spare nozzles. The remaining five (5) spare nozzles were rejected and were 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.



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

1. Owner: Energy Northwest

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

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Standby Liquid Control (SLC) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SLC(2)-3S	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	Lonerger	509258-82-1	N/A	N/A	1978	Replaced	Yes, Code Class 2
SLC-RV-29A	Lonerger	137180-1-1	N/A	N/A	1994	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 509258-82-1.
- 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 137180-1-1.
- 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 137180-1-1 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 137180-1-1 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 137180-1-1 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: Static Head Test Temperature: 117.8° F
 Component Design Pressure: 1400 Psig Temperature: 200° F

9. Remarks: 1) See attached NV-1 Code Data Report for the replacement valve SLC-RV-29A, Serial No 137180-1-1.
 2) Component design pressure of 1400 Psig is relief valve set pressure and design temperature of 200° F is relief valve rated temperature.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 1/8/03

Date 1/8/03

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period 9/16/02 to 1/10/03 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 7486.6 / 7486 I NIS
 National Board, State, and Endorsements

Date 1/10/03

AM 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

Kunkle Industries, Inc.

Manufactured and certified by Lonergan Valve Division, 8222 Bluffton Road, Fort Wayne, TN 46319 PLAN No. 2-1780

(name and address of NV Certificate Holder)

factured for Washington Public Power Supply System, WNP-2 OPS WHS Complex, Warehouse 1, North Power Plant Loop,

(name and address of Purchaser)

Richland, WA 99352

Location of installation Washington Public Power Supply System, WNP-2 OPS WHS Complex, Warehouse 1, North Power Plant

(name and address)

Loop, Richland, WA 99352

Valve ND50DS Orifice size 3/4 Nom. inlet size 1" Outlet size 2"

(model no., series no.)

(in.)

(in.)

(in.)

ASME Code, Section III, Division 1: 197A Winter 197A 2 N/A

(edition)

(addenda date)

(class)

(Code Case no.)

Type Spring 1400 N/A 100° F 2100 at 33° min °F

(spring, pilot or power operated)

(test pressure, psig)

(blowdown, psig)

(rated temp.)

(hydra. test, psig, inlet)

(°F)

Identification 137180-1-1 -1-2 N/A A930246 Rev. 0 N/A 199A

(Cert. Holder's serial no.)

(CRN)

(drawing no.)

(Mat'l. Bd. no.)

(year built)

Control ring settings N/A

SLC-RV-29A, S/N 137180-1-1

Pressure retaining items:

Fielding Supb
1/8/03

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	T3815-1, -2	SA-351 Gr. CF8M	70 ksi
Bonnet XXXXX	T3304-3, -4	SA-351 Gr. CF8M	70 ksi
XXXXX Stem	94918	SA-479 TY 316	75 ksi
Nozzle	35726	SA-479 TY 316	75 ksi
Disk	30340	SA-479 TY 316	75 ksi
Spring XXXXX Stem	31828	SA-479 TY 316	75 ksi
XXXXX Ring Pin Screws	30091	SA-479 TY 316	75 ksi
XXXXX Plug	73028	SA-479 TY 316	75 ksi
Spring	20330	ASTM A-313 TY 316	*
XXXXX Nut	8079561 / NAC	SA-194 Gr. 2H	N/A
XXXXX Stud	8866612	SA-193 Gr. B7	125 ksi

Continued below **

Relieving capacity 63,533 lb./hr. (12.7 GPM) @ 10% overpressure as certified by the National Board 01/25/85

(steam or fluid, lb/hr)

(psig)

(date)

Remarks: * Spring exempt from material requirements of NO-2000 but meets design requirements of NO-3595.

** Cap	B8506-10, -13	SA-351 Gr. CF8M	70 ksi
Compression Screw	700737	SA-479 TY 316	75 ksi
Gag Plug Screw	30091	SA-479 TY 316	75 ksi

CERTIFICATION OF DESIGN

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

CERTIFICATE OF COMPLIANCE

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 Division 1.

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

2-24-94 Name Kunkle Industries, Inc.
Lonergan Valve Division Signed Brian S. McAllister
(NV Certificate Holder) (authorized representative)

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

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by HSBI & I Co. of Hartford, CT have inspected the valve described in this Data Report on 2-24-94, 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 2-24-94 Signed Richard P. Paea Commissions NIB 7444 (NIBIA), Ind. 840 Mich 402
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)



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

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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SLC(2)-3S	WPPSS *	SLC(2)-3S-P1	N/A	N/A	1983	-----	Yes, Code Class 2
SLC(1)-1S	WPPSS *	SLC(1)-1S-P1	N/A	N/A	1982	-----	Yes, Code Class 2
SLC-RV-29B	Loneragan	139407-1-2	N/A	N/A	1994	Replaced	Yes, Code Class 2
SLC-RV-29B	Loneragan	137180-1-2	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-RV29B, Serial No 139407-1-2.
 - 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 137180-1-2.
 - 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 137180-1-2 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 137180-1-2 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 137180-1-2 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: Static Head Test Temperature: 84° F
 Component Design Pressure: 1400 Psig Temperature: 200° F

9. Remarks: 1) See attached NV-1 Code Data Report for the replacement valve SLC-RV-29B, Serial No 137180-1-2.
 2) Component design pressure of 1400 Psig is relief valve set pressure and design temperature of 200° F is relief valve rated temperature.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 1/8/03

Date 1/8/03

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island, have inspected the components described in this Owner's Report during the period 9/16/02 to 1/10/03 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 748644/ 7486 I ns
 National Board, State, and Endorsements

Date 1/10/03

AM 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

Kunkle Industries, Inc.

Manufactured and certified by Lonergan Valve Division, 8222 Bluffton Road, Fort Wayne, IN 46319 PLAN No. 2-1781

(Name and address of RV Certificate Holder)

Factured for Washington Public Power Supply System, WNP-2 OPS WHS Complex, Warehouse 1, North Power Plant Loop, Richland, WA 99352

(Name and address of Purchaser)

Location of installation Washington Public Power Supply System, WNP-2 OPS WHS Complex, Warehouse 1, North Power Plant Loop, Richland, WA 99352

(Name and address)

Valve ND500S Orifice size 3/4 Nom. inlet size 1" Outlet size 2"

(model no., series no.)

(in.)

(in.)

(in.)

ASME Code, Section III, Division 1: 1974 Winter 1974 2 N/A

(edition)

(addenda date)

(class)

(Code Case no.)

Type Spring 1400 N/A 100° F 2100 at 33° min. °F

(spring, pilot or power operated)

(test pressure, psig)

(blowdown, psig)

(rated temp.)

(hydra. test, psig, inlet)

Identification 137180-1-1 thru -1-2 N/A A930246 Rev. 0 N/A 1994

(Cert. Holder's serial no.)

(CRN)

(drawing no.)

(Mat'l. Sd. no.)

(year built)

Control ring settings N/A

SLC-RV-24B, S/N 137180-1-2

Pressure retaining items:

Quidip Supp
18/03

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	T3815-1, -2	SA-351 Gr. CF8M	70 ksi
Bonnet XXXXXX	T3304-3, -4	SA-351 Gr. CF8M	70 ksi
XXXXXX Stem	94918	SA-479 TY 316	75 ksi
Nozzle	35726	SA-479 TY 316	75 ksi
Disk	30340	SA-479 TY 316	75 ksi
Spring XXXXXX Step	31828	SA-479 TY 316	75 ksi
XXXXXX Ring Pin Screws	30091	SA-479 TY 316	75 ksi
X X Plug	73028	SA-479 TY 316	75 ksi
Spring	20330	ASTM A-313 TY 316	*
XXXXXX Nut	8079541 / N/C	SA-194 Gr. 2H	N/A
XXXXXX Stud	8866612	SA-193 Gr. B7	125 ksi

Continued below **

Relieving capacity 63,533 lb./hr. (12.7 GPM) @ 10% overpressure as certified by the National Board 01/25/85

(steam or fluid, lb/hr)

(psig)

(date)

Remarks: * Spring exempt from material requirements of NO-2000 but meets design requirements of NO-3595.

** Cap	H8506-10, -13	SA-351 Gr. CF8M	70 ksi
Compression Screw	700737	SA-479 TY 316	75 ksi
Gag Plug Screw	30091	SA-479 TY 316	75 ksi

CERTIFICATION OF DESIGN

Design Specification certified by David M. Bosl P.E. State WA Reg. no. 20941

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

CERTIFICATE OF COMPLIANCE

I 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 Division 1.

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

2-24-94 Name Kunkle Industries, Inc. Lonergan Valve Division Signed Brian J. McAllister

(RV Certificate Holder)

(authorized representative)

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

CERTIFICATE OF INSPECTION

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

of Hartford, CT have inspected the valve described in this Data Report on 2-24-94, 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 2-24-94 Signed Richard P. Paez Commissions NB 7444 (NBIA), Ind. 840 ^{Mich 402}

(Authorized Inspector)

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



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

1. Owner: Energy Northwest

Date: 07/17/03

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 Closed Cooling (RCC) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCC-TCV-72B	Fisher	6054690	2321	N/A	1977	Replacement	Yes, Code Class 3

7. Description Of Work Performed: Replaced body to bonnet bolts and nuts for existing valve RCC-TCV-72B. The replacement work was performed as follows:

- 1) Removed existing bolts and nuts.
- 2) Cut/ground the bolt heads from the bolts.
- 3) Cut threads to make all thread studs.
- 4) Beveled the stud ends.
- 5) Perform visual examination on the newly cut threads. Visual examination results acceptable.
- 6) Installed replacement bolts and nuts.
- 7) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 71 Psig Test Temperature: 65° F
 Component Design Pressure: 150 Psig Temperature: 150° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 7/17/03 Date 7/17/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 06/13/03 to 07/23/03 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.

John D. Murphy Commissions 8052 W ACIN
 Inspector's Signature National Board, State, and Endorsements

Date 07/23/03



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 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
SLC(2)-4S	WPPSS *	SLC(2)-4S-P1	N/A	N/A	1983	-----	Yes, Code Class 1
SLC-V-4A	Conax	4	91	N/A	1975	-----	Yes, Code Class 1
Trigger Body	Conax	5801	N/A	N/A	1999	Replaced	Yes, Code Class 1
Trigger Body	Conax	4585	N/A	N/A	1995	Replacement	Yes, Code Class 1
Inlet Fitting	Conax	5799	N/A	N/A	1999	Replaced	Yes, Code Class 1
Inlet Fitting	Conax	4570	N/A	N/A	1995	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced parts for the existing valve SLC-V-4A, Serial No 4, National Board No 91. The replacement work was performed as follows:

- 1) Removed the existing Trigger Body Subassembly Serial No 5801 from the valve.
- 2) Installed new replacement Trigger Body Subassembly Serial No 4585 in the valve.
- 3) Removed the existing Inlet Fitting Serial No 5799 from the valve.
- 4) Installed new replacement Inlet Fitting Serial No 4570 in the valve.
- 5) Performed VT-3 visual examination on the existing studs for the valve joint. VT-3 visual examination results acceptable. Note - One (1) set of studs cover both the inlet and the outlet joints.
- 6) Performed VT-3 visual examination on the existing nuts for the valve inlet joint. VT-3 visual examination results acceptable.
- 7) Performed VT-3 visual examination on the existing nuts for the valve outlet joint. VT-3 visual examination results acceptable.
- 8) Reinstalled refurbished valve SLC-V-4A, Serial No 4, National Board No 91.
- 9) Reinstalled VT-3 visually examined existing studs and nuts for the valve inlet and outlet joints.
- 10) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the existing valve SLC-V-4A, Serial No 4, National Board No 91 was reinstalled is Standby Liquid Control (SLC) piping system SLC(2)-4S-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) ASME Section III, Code Class 1, 1971 Edition with Winter 1972 Addenda for the existing valve SLC-V-4A, Serial No 4, National Board No 91.
- 4) ASME Section III, Code Class 1, 1977 Edition with Summer 1977 Addenda for the new replacement Trigger Body Subassembly Serial No 4585. The new replacement Trigger Body Subassembly certified to 1977 Edition with Summer 1977 Addenda is acceptable for use in the existing valve certified to 1971 Edition with Winter 1972 Addenda. This acceptability is documented in ASME Section XI Plan No 2-1618.
- 5) ASME Section III, Code Class 1, 1977 Edition with Summer 1977 Addenda for the new replacement Inlet Fitting Serial No 4570. The new replacement Inlet Fitting certified to 1977 Edition with Summer 1977 Addenda is acceptable for use in the existing valve certified to 1971 Edition with Winter 1972 Addenda. This acceptability is documented in ASME Section XI Plan No 2-1618.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 1200/1200 Psig Test Temperature: 81/91° F
 Component Design Pressure: 1400 Psig Temperature: 150° F

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

Valve Part	Serial No
Trigger Body Subassembly	4585
Inlet Fitting	4570

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

3) Test pressure on the down stream side of valve SLC-V-4A (RPV Side) - Test pressure of 1200 Psig and test temperature of 81° F.

4) Test pressure on the up stream side of valve SLC-V-4A (SLC-P-1A Side) - Test pressure of 1200 Psig and test temperature of 91° F.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 5/31/03 Date 5/31/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-2-03 to 7-1-03 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. Furt Commissions 7486 W / 7486 ME WS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

PLAN No. 2-17837

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 ProductionRelay Exp's 605
5/3/03

Pg. 1 of 2

1. Manufactured and certified by Conax Buffalo Corporation, 2300 Walden Avenue, Cheektowaga, NY 14225
(name and address of NPT Certificate Holder)

2. Manufactured for Washington Public Power Supply, Richland, WA 99352
(name and address of Purchaser)

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

4. Type: N38017, Rev. F SA479 304SST 75 KSI N/A 1995
(drawing no.) (mat'l spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code, Section III, Division 1: 77 S77 1 N/A
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: Inlet Fitting for explosive actuated valve replacement kit for standby liquid control system.

Pressure Test at 2800 psi for 10 minutes.

8. Nom. thickness (in.) .040 Min. design thickness (in.) .031 Dia. ID (ft & in.) .895" Length overall (ft & in.) 2.245"

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

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) <u>4570</u>	<u>4570</u>
(2) <u>4571</u>	<u>4571</u>
(3) <u> </u>	<u> </u>
(4) <u> </u>	<u> </u>
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(6) <u> </u>	<u> </u>
(7) <u> </u>	<u> </u>
(8) <u>SLC-V-4A INLET</u>	<u> </u>
(9) <u> </u>	<u> </u>
(10) <u>FITTING SIN 4570</u>	<u> </u>
(11) <u> </u>	<u> </u>
(12) <u> </u>	<u> </u>
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Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26) <u> </u>	<u> </u>
(27) <u> </u>	<u> </u>
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(48) <u> </u>	<u> </u>
(49) <u> </u>	<u> </u>
(50) <u> </u>	<u> </u>

10. Design pressure 1400 psi. Temp. 150 °F. Hydro. test pressure See Remarks at temp. °F
(when applicable)

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

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

Certificate Holder's Serial Nos. 4570 through 4571

CERTIFICATION OF DESIGN

Design specifications certified by Clyde T. Nish P.E. State CA Reg. no. 15587
(when applicable)

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

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-1850 Expires September 2, 1995

Date 5/10/95 Name Conax Buffalo Corporation Signed Christin Pratt
(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
NY and employed by Hartford Steam Boiler Inspection & Insurance Company

of Hartford, CT have inspected these items described in this Data Report on 5-18-95, 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 5-18-95 Signed ST Campbell Commissions NB7640 N
(Authorized Inspector) (Nat'l Bd. (incl. endorsements) and state or prov. and no.)

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

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

Building 800 6 004
5/30/83
Pg. 1 of 2

1. Manufactured and certified by Conax Buffalo Corporation, 2300 Walden Avenue, Cheektowaga, NY 14225
(name and address of NPT Certificate Holder)

2. Manufactured for Washington Public Power Supply, Richland, WA 99352
(name and address of Purchaser)

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

4. Type: N20000, Rev. G SA479 304SST 75 KSI N/A 1995
(drawing no.) (mat'l spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code, Section III, Division 1: 77 S77 1 N/A
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: Trigger Body Subassembly for explosive actuated valve replacement kit for standby liquid control system.

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

8. Nom. thickness (in.) See Remarks Min. design thickness (in.) See Remarks Dia. ID (ft & in.) See Remarks Length overall (ft & in.) See Remarks

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

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) <u>4585</u>	<u>4585</u>
(2) <u>4586</u>	<u>4586</u>
(3) <u> </u>	<u> </u>
(4) <u> </u>	<u> </u>
(5) <u> </u>	<u> </u>
(6) <u> </u>	<u> </u>
(7) <u>SLC-V-4A TRIGGER</u>	<u> </u>
(8) <u> </u>	<u> </u>
(9) <u>BOLY S/N 4585</u>	<u> </u>
(10) <u> </u>	<u> </u>
(11) <u> </u>	<u> </u>
(12) <u> </u>	<u> </u>
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Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26) <u> </u>	<u> </u>
(27) <u> </u>	<u> </u>
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(49) <u> </u>	<u> </u>
(50) <u> </u>	<u> </u>

10. Design pressure 1400 psi. Temp. 150 °F. Hydro. test pressure See Remarks at temp. °F
(when applicable)

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

FORM N-2 (Back - Pg. 2 of 2)Certificate Holder's Serial Nos. 4585 through 4586

CERTIFICATION OF DESIGN

Design specifications certified by Clyde T. Nieh P.E. State CA Reg. no. 15587
(when applicable)

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

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-1850 Expires September 2, 1995

Date 5/18/95 Name Conax Buffalo Corporation Signed [Signature]
(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
NY and employed by Hartford Steam Boiler Inspection & Insurance Company

of Hartford, CT have inspected these items described in this Data Report on 5-18-95, 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 5-18-95 Signed [Signature] Commissions NR 7642N
(Authorized Inspector) (Nat'l Bd. (incl. endorsements) and state or prov. and no.)



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

1. Owner: Energy Northwest

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

Date: 07/17/03

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(16)-1	WPPSS *	RCIC(16)-1-P1	N/A	N/A	1983	-----	Yes, Code Class 2

7. Description Of Work Performed: Replaced rupture discs for RCIC-RD-1 and RCIC-RD-2. The replacement work was performed as follows:

- 1) Removed existing rupture discs.
- 2) Performed VT-3 visual examination on the existing studs for both the bolted joints. VT-3 visual examination results acceptable.
- 3) Performed VT-3 visual examination on the existing nuts for both the bolted joints. VT-3 visual examination results acceptable.
- 4) Installed new rupture discs in RCIC-RD-1 and RCIC-RD-2.
- 5) Reinstalled VT-3 visually examined existing studs for both the bolted joints.
- 6) Reinstalled VT-3 visually examined existing nuts for both the bolted joints.
- 7) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of both the bolted 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.

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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 3.8 Psig Test Temperature: 223.8°F
 Component Design Pressure: 150 Psig Temperature: 267°F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 7/17/03 Date 7/17/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 10/29/02 to 07/23/03 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.

John D. Smith Commissions 8032 W ACIA
 Inspector's Signature National Board, State, and Endorsements
 Date 07/23/03



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

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

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

7. Description Of Work Performed: Replaced spool piece for 18" Service Water (SW) Loop B return piping down stream of valve SW-V-12A. The replacement work was performed as follows:

- 1) Removed existing section of 18" pipe.
- 2) Beveled valve SW-V-12A cut end and beveled cut pipe ends.
- 3) Installed new section of 18" of pipe.
- 4) Completed the root pass on both the 18" circumferential butt welds.
- 5) Performed visual examination on the root pass on both the 18" circumferential butt welds. Visual examination results acceptable.
- 6) Performed magnetic particle (MT) examination on the root pass for both the welds. The magnetic particle (MT) examination results acceptable.
- 7) Completed both the 18" circumferential butt welds.
- 8) Performed visual examination on both the final 18" circumferential butt welds. Visual examination results acceptable.
- 9) Performed magnetic particle (MT) examination on both the final 18" circumferential butt welds. Magnetic particle (MT) examination results acceptable.
- 10) Installed replacement piping material such as sockolet, reducing insert.
- 11) Made required welds.
- 12) Performed visual examination on the final welds. Visual examination results acceptable.
- 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.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The magnetic particle (MT) examination on the root pass for both the 18" welds was performed in accordance with the requirements of ASME Section III, Code Class 3, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 3) The magnetic particle (MT) examination on the final 18" circumferential butt welds was performed in accordance with the requirements of ASME Section III, Code Class 3, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 4) The VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints was performed in accordance with the requirements of ASME Section XI, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 215 Psig Test Temperature: 65° F
 Component Design Pressure: 309 Psig Temperature: 150° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/30/03 Date 6/30/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 10-29-02 to 7-1-03 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 Commissions 7486W/7486 NI NS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03



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: 06/06/03

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: Service Water (SW) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW-V-12A	Velan	77G534	N/A	N/A	1977	Repaired	Yes, Code Class 3

7. Description Of Work Performed: Repaired by welding wasted areas on the inside (ID) surfaces of valve SW-V-12A outlet. The repair work was performed as follows:

- 1) Prepped wasted areas by grinding to provide access for welding.
- 2) Weld repaired (weld built up) the wasted areas.
- 3) Ground/blended the weld repaired areas flush with the adjacent base metal to match the contour of the inside surfaces.
- 4) Performed visual examination on the weld repaired areas. Visual examination results acceptable.
- 5) Performed magnetic particle (MT) examination on the weld repaired areas. Magnetic particle (MT) examination results acceptable.
- 6) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 215 Psig Test Temperature: 65° F
 Component Design Pressure: 300 Psig Temperature: 150° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/6/03

Date 6/6/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 10-29-02 to 6-30-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature]
 Inspector's Signature

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

Date 6/30/03



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

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

Date: 06/07/03
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS(1)-4C MS-V-706C MS-V-706C	WPPSS * Borg Warner Flowserve	MS(1)-4C-P1 19798 E720R-1-1	N/A N/A N/A	N/A N/A N/A	1983 1977 2002	----- Replaced Replacement	Yes, Code Class 2 Yes, Code Class 1 Yes, Code Class 2

7. **Description Of Work Performed:** Replaced existing valve MS-V-706C. The replacement work was performed as follows:
- 1) Removed existing valve MS-V-706C, Serial No 19798.
 - 2) Installed replacement valve MS-V-706C, Serial No E720R-1-1.
 - 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 MS-V-706C, Serial No E720R-1-1 was installed is Main Steam (MS) piping system MS(1)-4C-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 MS-V-706C, Serial No E720R-1-1 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1974 Addenda requirements.
- 4) Borg Warner valves are now being manufactured by Flowserve.

**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 NPV-1 Code Data Report for the replacement valve MS-V-706C, Serial No E720R-1-1.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/9/03 Date 6/9/03

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 _____

REPRINT 6/93

FORM NPV-1 (Back — Pg. 2 of 2)Certificate Holder's Serial No. E720R-1-1 thru -1-38. Design conditions 3600 psi 100 °F or valve pressure class 1500 (1)
(pressure) (temperature)9. Cold working pressure 3600 psi at 100°F10. Hydrostatic test 5400 psi. Disk differential test pressure 3960 psi11. Remarks: 1"-1500#-Flex Wedge Gate ValveDisc Material to 1974 Edition. Summer 1975 Addenda

CERTIFICATION OF DESIGN

Design Specification certified by Richard L. Schlosser P.E. State WA Reg. no. 21701
Design Report certified by N/A P.E. State Reg. no.

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. N1712Date 8-28-02 Name Flowserve Corporation
(N Certificate Holder)Expires 04/15/04
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 Pennsylvania and employed by One Beacon America Insurance of Boston, Mass. have inspected the pump, or valve, described in this Data Report on 346 8229-02, 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 8-29-02 Signed [Signature] Commissions Pennsylvania 2392
Charles [unclear] (Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.



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: 05/31/03

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: Control Rod Drive (CRD) 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
CRD-Scram/Inst.	GE, I&CE	CRD-Scram/Inst.	N/A	N/A	1983	-----	Yes, Code Class 2

7. Description Of Work Performed: Installed sixteen (16) new flush ports (connections) for Scram Discharge Volume (SDV). The installation work was performed as follows:

- 1) Installed one (1) new elbow flanged pipet on the existing piping.
- 2) Installed fifteen (15) new flanged pipets on the existing piping.
- 3) Made required 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) Installed sixteen (16) new blind flanges for the flanged pipets.
- 7) Installed new studs for all sixteen (16) new flush ports (connections).
- 8) Installed new nuts for all sixteen (16) new flush ports (connections).
- 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.



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

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

Test Pressure: 1605, 1600, 1590 and 1585 Psig

Test Temperature: 89, 88, 87 and 86° F

Component Design Pressure: 1250 Psig

Temperature: 280° F

9. Remarks: The actual test pressures and temperatures during hydrostatic tests are as follows:

- 1) Actual test pressures - Two (2) flush ports (connections) at 1605 Psig, seven (7) flush ports (connections) at 1600 Psig, five (5) flush ports (connections) at 1590 Psig and two (2) flush ports (connections) at 1585 Psig
- 2) Actual test temperatures - Two (2) flush ports (connections) at 89° F, six (6) flush ports (connections) at 88° F, six (6) flush ports (connections) at 87° F and two (2) flush ports (connections) at 86° F

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/2/03

Date 6/2/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 2-8-03 to 7-1-03 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 748600/7486 NI NS
National Board, State, and Endorsements

Date 7-1-03



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: 06/25/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001D MS-RV-2D MS-RV-2D	WPPSS * Crosby Crosby	B22-G001D-P1 N63790-00-0050 N63790-03-0122 ** (N63790-00-0122) **	N/A N/A N/A	N/A N/A N/A	1983 1980 1981	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

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

- 1) Removed twelve (12) existing standard (regular) nuts for the relief valve inlet joint.
- 2) Removed sixteen (16) existing standard (regular) bolts for the relief valve outlet joint.
- 3) Removed existing relief valve Serial No N63790-00-0050 with set pressure of 1175 Psig at rated temperature of 575° F.
- 4) Performed VT-1 visual examination on twelve (12) new "Superbolts" nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
- 5) Installed replacement relief valve with Serial No N63790-03-0122 with set pressure of 1175 Psig at rated temperature of 575° F.
- 6) Installed VT-1 visually examined twelve (12) new "Superbolts" nuts for the relief valve inlet joint. Note - None of the existing standard (regular) nuts were reused.
- 7) Installed sixteen (16) new "Superbolts" bolts for the relief valve outlet joint. Note - None of the existing standard (regular) bolts were reused.
- 8) 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 N63790-03-0122 was installed is Main Steam (MS) piping system B22-G001D-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0122 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) ** The replacement relief valve Serial No N63790-00-0122 was previously modified (upgraded) to Serial No N63790-03-0122 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.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒
 Test Pressure: 1030 Psig Test Temperature: 199.8° 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 N63790-03-0122, 2) See attached NV-1 (Pre - Modification) Code Data Report for relief valve Serial No N63790-00-0122, 3) * The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/25/03 Date 6/25/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-7-03 to 6-30-03 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 12-2-03
 Inspector's Signature National Board, State, and Endorsements

Date 6-30-03

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

Relief Supp

1. Work performed by: NWS Technologies, LLC Purchase Order # 00313236 Rev. 2
131 Venture Boulevard, Spartanburg, SC 29306
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.

<u>HB-65-BP-FN</u> (type)	new s/n: <u>N63790-03-0122</u> (mfr's S/N)	<u>N/A</u> (NB#)	<u>steam</u> (service)	<u>6 x 10</u> (size)	<u>1981</u> (yr. built)
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 d: Construction Code: ASME Sec. III Div. 1 1971 N/A N/A 1
 (name/section/division) (edition) (addenda) (Code Cases(s)) (Code Class)
6. ASME Code Section XI applicable for inservice inspection: 1989 N/A N/A
 (edition) (addenda) (Code Case(s))
7. ASME Code Section XI used for repairs, replacements: 1989 N/A N/A
 (edition) (addenda) (Code Case(s))
8. Construction Code used for repairs, replacements: 1971 N/A N/A
 (edition) (addenda) (Code Case(s))
9. Design responsibilities: N/A
10. Opening pressure: 1175 psig
 Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

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

National Board Certificate of Authorization No. 632 to use the "VR" stamp expires April 3, 2006.
 National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2006.

4/22/03 NWS Technologies, LLC Cesar V. Sierra Manager, QA
 Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Charles F. Toegel Jr. holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of North Carolina and employed by Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 22 APR 2003 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.

4/22/03 Charles F. Toegel Jr. NB # 8462, A, N, I NC# 1073
 Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.)

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

1. Work performed by: NWS Technologies, LLC Purchase Order # 00313238 Rev. 2
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: N63790-03-8868

0122 @ 5/14/03
CRG-ANS 5/14/03

11. Description of work:

NWS Traveler # 03-69

The valve was disassembled. The nozzle and disc were removed for NDE.
Both disc and nozzle were polished by NWS prior to installation.

Parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230481

Inlet Studs (3): SLR

After reassembly, the valve set-pressure was certified using steam as the lift medium.

The valve was then jacked and lapped to restore seat integrity.

A final steam seat tightness test was then done at 93% of set-pressure.

4/24/03
Date

NWS Technologies, LLC
(repair organization)

[Signature]
(authorized representative)

Manager, QA
(title)

4/22/03
Date

[Signature]
Inspector's Signature

NB# 8462, A.N.I NC# 1073

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



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

Relief Supp
6/28/03

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

- 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.,
- Manufactured For San Jose, CA 95125 Order No. 205-AJ986
Name and Address
- Owner Washington Public Power Supply System, Richland Washington 99352
Name and Address
- Location of Plant Hanford Reservation, Richland, Washington 99352
- Valve Identification MPL #B22-F01 Serial No. N63790-00-0122 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
- Set Pressure (psig) 1175 575° F
Rated Temperature
Stamped Capacity 884,314 @ 3 Overpressure -- Blowdown (psig) 2% to 11%
Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve)
1100 psig (Body Only)
(Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings		
Crossing		
Body	<u>N93183-36-0085</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-36-0097</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. XXXXXXXXXXXX		
XXXXXXXXXX Disc Insert	<u>N93185-37-0153</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-33-0070</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder K55484-31-0016	<u>N89714-31-0014</u>	<u>AMS 5662B</u>
Spring Washers K62858-36-0080	<u>K62856-36-0107</u> <u>K62857-36-0121</u>	<u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0071</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point K62873-37-0135	<u>N89720-43-0145</u>	<u>ASME SA564 Type 630</u>
c. Spring K62858-36-0080	<u>*N89722-0085</u>	<u>ASTM A304-66 Gr. 4161H</u>
d. Bolting		
Spindle Ball		
e. XXXXXXXXXX K62873-37-0135	<u>N93213-0202</u>	<u>Stoody #6</u>
Thrust Bearing Adapter	<u>N93409-32-0068</u>	<u>ASME SA193 Gr. B6</u>
Bonnet Stud (BW19)	<u>N93207-1498 thru 1509</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut (J87)	<u>N93210-1009 thru 1020</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud (BW21)	<u>N93216-1431 thru 1442</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u> <u>ASTM A194-71 Gr. 2H</u>
Inlet Stud Nut (BW22)	<u>N93218-1365 thru 1376</u>	<u>ASME SA194 Gr. 2H</u>
Adjusting Bolt Button	<u>N93411-33-0075</u>	<u>ASME SA193 Gr. B6</u>
K63618-33-0075		

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.

N63790-00-0122

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 JJ Keene
(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 1/9, 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 19 81
Signed John D. Morner Commissions 119181
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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



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

1. Owner: Energy Northwest

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

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001A MS-RV-2A MS-RV-2A	WPPSS * Crosby Crosby	B22-G001A-P1 N63790-00-0054 N63790-03-0051 ** (N63790-00-0051) **	N/A N/A N/A	N/A N/A N/A	1983 1980 1981	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

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

- 1) Removed twelve (12) existing standard (regular) nuts for the relief valve inlet joint.
- 2) Removed sixteen (16) existing standard (regular) bolts for the relief valve outlet joint.
- 3) Removed existing relief valve Serial No N63790-00-0054 with set pressure of 1185 Psig at rated temperature of 575° F.
- 4) Performed VT-1 visual examination on twelve (12) new "Superbolts" nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
- 5) Installed replacement relief valve with Serial No N63790-03-0051 with set pressure of 1185 Psig at rated temperature of 575° F.
- 6) Installed VT-1 visually examined twelve (12) new "Superbolts" nuts for the relief valve inlet joint. Note - None of the existing standard (regular) nuts were reused.
- 7) Installed sixteen (16) new "Superbolts" bolts for the relief valve outlet joint. Note - None of the existing standard (regular) bolts were reused.
- 8) 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 N63790-03-0051 was installed is Main Steam (MS) piping system B22-G001A-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0051 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) ** The replacement relief valve Serial No N63790-00-0051 was previously modified (upgraded) to Serial No N63790-03-0051 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.



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

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

Test Pressure: 1030 Psig

Test Temperature: 199.8° 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 N63790-03-0051, 2) See attached NV-1 (Pre - Modification) Code Data Report for relief valve Serial No N63790-00-0051, 3) * The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh

Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh

Kuldip Singh - Program Lead Engineer (PLE)

Date

6/19/03

Date

6/19/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-7-03 to 6-30-03 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 74864/74184 NIBS
National Board, State, and Endorsements

Date

6/30/03

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

Added by Sup 3
6/9/03

1. Work performed by: NWS Technologies, LLC Purchase Order # 00313236 Rev. 2
131 Venture Boulevard, Spartanburg, SC 29306
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.

<u>HB-65-BP-FN</u>	new s/n: <u>N63790-03-0051</u>	<u>N/A</u>	<u>steam</u>	<u>6 x 10</u>	<u>1981</u>
(type)	(mfr's S/N)	(NB#)	(service)	(size)	(yr. built)

d: Construction Code: ASME Sec. III Div. 1 1971 N/A N/A 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, 2006.
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2006.
4/22/03 NWS Technologies, LLC *Charles F. Toegel Jr.* Manager, QA
Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Charles F. Toegel Jr. holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of North Carolina and employed by Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 22 APR 2003 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.

4/22/03
Date

Charles F. Toegel Jr.
Inspector's Signature

NB # 8462, A, N, I NC# 1073

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

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

1. Work performed by: **NWS Technologies, LLC** Purchase Order # 00313236 Rev. 2
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: N63790-03-0051

11. Description of work:

NWS Traveler # 03-65

The valve was disassembled. The nozzle and disc were removed for NDE. The disc was replaced. The old disc was packaged for return to site.

New disc: N97499-33-0024 was installed.

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: N/A

During the initial repair, accelerometer mounts were installed on the spindle and spring as directed by CGS engineering. The valve was tested to ensure mount integrity. During the jack and lap, accelerometers were installed on the mounts.

After reassembly, the valve set-pressure was certified using steam as the lift medium.

The valve was then jacked and lapped to restore seat integrity.

A final steam seat tightness test was then done at 93% of set-pressure.

4/22/13
Date

NWS Technologies, LLC
(repair organization)


(authorized representative)

Manager, QA
(title)

4/22/13
Date


Inspector's Signature

NB# 8462, A,N,I NC# 1073

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

PLAN NO. 2-1797

Building Supp's
6/19/03

CROSBY		CROSBY VALVE & GAGE COMPANY WRENTHAM, MASS	
FORM MV-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, 61 Kendrick St., Wrentham, MA 02093</u>			
Name and Address			
Model No. <u>NB-65-P2-PN</u> Order No. <u>N94275</u> Contract Date <u>4/24/79</u> National Board No. <u>N/A</u>			
General Electric Company, 175 Curtner Ave., San Jose, CA 95125			
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>Hanford Reservation, Richland, Washington 99352</u>			
5. Valve Identification <u>MP1 #B22-P013</u> Serial No. <u>N63790-00-0051</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, Power Actuated			
6. Set Pressure (psig) <u>1185</u> <u>575°</u>			
Rated Temperature			
Stamped Capacity <u>891,250</u> # <u>3</u> Overpressure <u>--</u> Blowdown (psig) <u>2X to 11X</u>			
Hydrostatic Test (psig) Inlet <u>2370</u> Outlet <u>1100 psig (Body Only)</u>			
(Applicable to Valves for Closed Systems Only)			
Pressure Retaining Pieces			
	Serial No. Identification	Material Specification Including Type or Grade	
a. Bar Stock & Forgings			
Body	<u>N93183-35-0070</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>	
Body			
Bonnet	<u>N93407-35-0033</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>	
b. Backflange			
Backflange Disc Insert	<u>N93185-34-0083</u>	<u>ASME SA637 Gr. 71i</u>	
Nozzle	<u>N93184-33-0055</u>	<u>ASME SA182 Gr. F316</u>	
Disc Holder <u>*K55484-35-0084</u>	<u>*N89714-34-0122</u>	<u>AMS 5662B</u>	
Spring Washers <u>K62858-35-0033</u>	<u>K62856-35-0089</u> <u>K62857-35-0054</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>	
Adjusting Bolt	<u>N93410-33-0058</u>	<u>ASME SA193 Gr. B6</u>	
Spindle Point <u>K62373-37-0151</u>	<u>N89720-43-0146</u>	<u>ASME SA564 Type 630</u>	
c. Spring <u>K62858-35-0033</u>	<u>KX2689-0119</u>	<u>ASTM A304-66 Gr. 4161H</u>	
d. Bolting			
Spindle Ball			
e. Spindle Ball <u>K62873-37-0151</u>	<u>N93213-0218</u>	<u>Stoody #6</u>	
Thrust Bearing Adapter	<u>N93409-32-0053</u>	<u>ASME SA193 Gr. B6</u>	
Bonnet Stud <u>(BW5, I17)</u> <u>N93207-0609 thru 0620</u>		<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>	
Bonnet Stud Nut <u>(JB7)</u> <u>N93210-0829 thru 0840</u>		<u>ASME SA194 Gr. 2H</u>	
Inlet Stud <u>(BW6)</u> <u>N93216-0611 thru 0622</u>		<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>	
Inlet Stud Nut <u>(BW8)</u> <u>N93218-0615 thru 0626</u>		<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>	
Adjusting Bolt Button <u>K63618-33-0059</u>	<u>N93411-33-0059</u>	<u>ASME SA193 Gr. B6</u>	

MAB

FOR INFORMATION ONLY

ZX00380611

N 62799-00-0251

3/1/80

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. 1562 & 1711. Class 1 (Date)

Date 11-5-80 Signed Crosby Valve & Gage Co. by R. G. Curran (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 1/9/80 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 1/9/80

Signed John D. McNamee Commissions MASS 1266 (Inspector) (Nat'l. Bd., State, Prov. and No.)

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

MAB

3 4 5 6 7 8 9 10 11

2X00380612



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: 06/19/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001A MS-RV-3A MS-RV-3A	WPPSS * Crosby Crosby	B22-G001A-P1 N63790-00-0056 N63790-03-0058 ** (N63790-00-0058) **	N/A N/A N/A	N/A N/A N/A	1983 1980 1980	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

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

- 1) Removed twelve (12) existing standard (regular) nuts for the relief valve inlet joint.
- 2) Removed sixteen (16) existing standard (regular) bolts for the relief valve outlet joint.
- 3) Removed existing relief valve Serial No N63790-00-0056 with set pressure of 1195 Psig at rated temperature of 575° F.
- 4) Performed VT-1 visual examination on twelve (12) new "Superbolts" nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
- 5) Installed replacement relief valve with Serial No N63790-03-0058 with set pressure of 1195 Psig at rated temperature of 575° F.
- 6) Installed VT-1 visually examined twelve (12) new "Superbolts" nuts for the relief valve inlet joint. Note - None of the existing standard (regular) nuts were reused.
- 7) Installed sixteen (16) new "Superbolts" bolts for the relief valve outlet joint. Note - None of the existing standard (regular) bolts were reused.
- 8) 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 N63790-03-0058 was installed is Main Steam (MS) piping system B22-G001A-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0058 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) ** The replacement relief valve Serial No N63790-00-0058 was previously modified (upgraded) to Serial No N63790-03-0058 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.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure: 1030 Psig Test Temperature: 199.8° 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 N63790-03-0058, 2) See attached NV-1 (Pre - Modification) Code Data Report for relief valve Serial No N63790-00-0058, 3) * The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 6/19/03 Date 6/19/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-7-03 to 6-30-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

J. M. Foster Commissions 748614/7486 n.i. n.i.
 Inspector's Signature National Board, State, and Endorsements
 Date 6-30-03

PLAN No. 2-1798

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

Quincy Smith
4/19/03

1. Work performed by: NWS Technologies, LLC Purchase Order # 00313236 Rev. 2
131 Venture Boulevard, Spartanburg, SC 29306
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.

<u>HB-65-BP-FN</u> (type)	new s/n: <u>N63790-03-0058</u> (mfr's S/N)	<u>N/A</u> (NB#)	<u>steam</u> (service)	<u>6 x 10</u> (size)	<u>1980</u> (yr. built)
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d: Construction Code: ASME Sec. III Div. 1 1971 N/A N/A 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, 2006.
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2006.

4/22/03 NWS Technologies, LLC *Cesar V. Sierra* Manager, QA
Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Charles F. Toegel Jr. holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of North Carolina and employed by Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 22 APRIL 2003 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.

4/22/03 *Charles F. Toegel Jr.* NB # 8462, A, N, I NC# 1073
Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.):

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

1. Work performed by: NWS Technologies, LLC Purchase Order # 00313236 Rev. 2
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: N63790-03-0058

The S/N for this valve was N63790-00-0058 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.

CGS 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: N97499-33-0028 and Nozzle S/N: N97498-50-0150

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: N/A

NWS Traveler # 03-67

After reassembly, the valve set-pressure was certified using steam as the lift medium.

The valve was then jacked and lapped to restore seat integrity.

A final steam seat tightness test was then done at 93% of set-pressure.

4/22/03
Date

NWS Technologies, LLC
(repair organization)

Richard Leonard
(authorized representative)

Manager, QA
(title)

4/22/03
Date

Charles F. Lopez
Inspector's Signature

NB# 8462, A,N,I NC# 1073
Commissions (NB (incl endorsements), jurisdiction, & no.)

PLAN No. 2-1798

Delair Smith
6/9/03

CROSBY		CROSBY VALVE & GAGE COMPANY WRENTHAM, MASS	
FORM MV-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-BP-FN</u> Order No. <u>N94275</u> Contract Date <u>4/24/79</u> National Board No. <u>N/A</u>			
2. Manufactured For <u>General Electric Company, 175 Curtner Ave., 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>Hanford Reservation, Richland, Washington 99352</u>			
5. Valve Identification <u>MPL #B22-F013</u> Serial No. <u>N63790-00-0058</u> Drawing No. <u>DS-A-63790 Rev. C</u>			
Type <u>Safety Relief</u> Orifice Size <u>R</u> Pipe Size <u>6</u> Inlet <u>6</u> Outlet <u>10</u>			
Safety, Safety Relief, Pilot, Power Actuated			
6. Set Pressure (psig) <u>1195</u> <u>575°</u> F			
Rated Temperature			
Stamped Capacity <u>899,185</u> @ <u>3</u> X Overpressure <u>Blowdown (psig) 2X to 11X</u>			
Hydrostatic Test (psig) Inlet <u>2370</u> Outlet <u>975 psig (Assembled Valve)</u>			
(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>N93183-35-0077</u>	<u>ASTM A105-71 Gr. II</u>	
Bonnet	<u>N93407-35-0040</u>	<u>ASTM A105-71 Gr. II</u>	
b. Disc & Disc Insert			
Disc Insert	<u>N93185-34-0090</u>	<u>ASME SA637 Gr. 7</u>	
Nozzle	<u>N93184-33-0062</u>	<u>ASME SA182 Gr. F1</u>	
Disc Holder	<u>*N89714-34-0094</u>	<u>AMS 5662B</u>	
Spring Washers	<u>K62856-35-0096</u>	<u>ASTM A105-71 Gr. II</u>	
Adjusting Bolt	<u>N93410-33-0065</u>	<u>ASME SA193 Gr. B6</u>	
Spindle Point	<u>K62873-35-0058</u>	<u>ASTM A564-71 Type 630</u>	
c. Spring	<u>K62858-35-0040</u>	<u>*N89722-0016</u>	
d. Bolt			
Spindle Ball	<u>K62873-35-0058</u>	<u>N93213-0058</u>	
e. Thrust Bearing Adapter	<u>N93409-32-0060</u>	<u>ASME SA193 Gr. B6</u>	
Bonnet Stud	<u>(BW5, 117) N93207-0693 thru 0704</u>	<u>ASTM A193-71 Gr. B7</u>	
Bonnet Stud Nut	<u>(J87) N93210-0913 thru 0924</u>	<u>ASME SA194 Gr. 2H</u>	
Inlet Stud	<u>(BW6) N93216-0695 thru 0706</u>	<u>ASTM A193-71 Gr. B7</u>	
Inlet Stud Nut	<u>(BW8) N93218-0699 thru 0710</u>	<u>ASTM A194-71 Gr. 2H</u>	
Adjusting Bolt Nut	<u>K63618-33-0067</u>	<u>N93411-33-0067</u>	
		<u>ASME SA193 Gr. B6</u>	

FOR INFORMATION ONLY

2X00382751

S/N N 63790-00-0058
Kudry Emp.
3/1/89

Valve originally built against Crosby Order No. M103600, 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, 1977 Edition, Addenda No Addenda, Code Case No. 1567 & 1711.
Class 1 (Date)
Date 11-5-80 Signed Crosby Valve & Gate Co. by R. G. Calverton
(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 & Gate Company
Stress analysis report (Class 1 only) on file at Crosby Valve & Gate Company
43 Kendrick Street, Wrentham, Massachusetts 02093
Design specifications certified by Royd 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 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 11/25/80 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 11/25/80
Signed J. H. 35:15Z/11M Commissions MASS 1200
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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

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FOR INFORMATION ONLY

ZX00382752



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

1. Owner: Energy Northwest

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

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001D MS-RV-3D MS-RV-3D	WPPSS * Crosby Crosby	B22-G001D-P1 N63790-03-0126 N63790-03-0057 ** (N63790-00-0057) **	N/A N/A N/A	N/A N/A N/A	1983 1981 1980	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

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

- 1) Removed twelve (12) existing standard (regular) nuts for the relief valve inlet joint.
- 2) Removed sixteen (16) existing standard (regular) bolts for the relief valve outlet joint.
- 3) Removed existing relief valve Serial No N63790-03-0126 with set pressure of 1195 Psig at rated temperature of 575° F.
- 4) Performed VT-1 visual examination on twelve (12) new "Superbolts" nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
- 5) Installed replacement relief valve with Serial No N63790-03-0057 with set pressure of 1195 Psig at rated temperature of 575° F.
- 6) Installed VT-1 visually examined twelve (12) new "Superbolts" nuts for the relief valve inlet joint. Note - None of the existing standard (regular) nuts were reused.
- 7) Installed sixteen (16) new "Superbolts" bolts for the relief valve outlet joint. Note - None of the existing standard (regular) bolts were reused.
- 8) 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 N63790-03-0057 was installed is Main Steam (MS) piping system B22-G001D-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The existing ASME Code Stamped piping system applicable to the relief valve outlet side is certified to comply with ASME Section III, Code Class 3, 1971 Edition with Winter 1973 Addenda requirements.
- 4) The replacement relief valve Serial No N63790-03-0057 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) ** The replacement relief valve Serial No N63790-00-0057 was previously modified (upgraded) to Serial No N63790-03-0057 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.

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

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

Test Pressure: 1030 Psig

Test Temperature: 199.8° 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 N83790-03-0057, 2) See attached NV-1 (Pre - Modification) Code Data Report for relief valve Serial No N83790-00-0057, 3) * The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Date

6/19/03

Date

6/19/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-7-03 to 7-1-03 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. W. East
Inspector's Signature

Commissions

74660/7486 N I N S
National Board, State, and Endorsements

Date

7-1-03

PLAN No. 2-1799

CERTIFICATE OF INSPECTION

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: N63790-03-0057

The S/N for this valve was N63790-00-0057 The two middle digits were changed to indicate the modification of the valve to a flexi-disc design.

11. Description of work:

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

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

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

Disc S/N: N97499-34-0031 and Nozzle S/N: N97498-33-0074
(pre mod s/n N93184-33-0074)

were installed in the valve.

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

Other parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

Inlet Studs (4): H/C: N B7 KMY

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

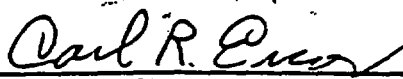
6/19/00
Date

NWS Technologies, LLC
(repair organization)


(authorized representative)

Manager, QA
(title)

6/19/00
Date


Inspector's Signature

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

CROSBYCROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS5/4/88
PLAN No. 2-1799FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES
As Required by the Provisions of the ASME Code RulesO.C.-44D
Quail Supl
6/9/03DATA 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 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 Rev.
Type Safety Relief Orifice Size R Pipe Size — Inlet 6 Outlet 10
Safety, Safety Relief, Pilot. Inch 1.315 Inch 2.625 Inch 2.625 Inch 2.625
Power Actuated
6. Set Pressure (psig) 1195 5750 F
Rated Temperature
- Stamped Capacity 899,185 @ 3 Overpressure — Blowdown (psig) 2 % to 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		
CROSBY 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. ASME SA105-71 Gr. II ASME SA105-71 Gr. II 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 *K55484-35-0083	<u>*N89714-34-0093</u>	<u>AMS 5662B</u>
Spring Washers K62858-35-0039	<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 K62873-35-0057	<u>*N89720-34-0073</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
c. Spring K62858-35-0039	<u>*N89722-0015</u>	<u>ASTM A304-66 Gr. 4161 H</u>
d. Bolting		
Spindle Ball K62873-35-0057	<u>N93213-0057</u>	<u>2X00380090</u> <u>Stellite #6</u>
e. CROSBY 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>
Adjusting Bolt Button	<u>N93411-33-0066</u>	<u>ASME SA193 Gr. B6</u>
K63618-33-0066		

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.

N163790-00-0047

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.A. Gowan
(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 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. Gorman Commissions MASS 1266
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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

ZX00380091



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

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001B MS-RV-5B MS-RV-5B	WPPSS * Crosby Crosby	B22-G001B-P1 N63790-00-0062 N63790-03-0060 ** (N63790-00-0060) **	N/A N/A N/A	N/A N/A N/A	1983 1980 1980	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing relief valve MS-RV-5B. The replacement work was performed as follows:
- 1) Removed twelve (12) existing standard (regular) nuts for the relief valve inlet joint.
 - 2) Removed sixteen (16) existing standard (regular) bolts for the relief valve outlet joint.
 - 3) Removed existing relief valve Serial No N63790-00-0062 with set pressure of 1205 Psig at rated temperature of 575° F.
 - 4) Performed VT-1 visual examination on twelve (12) new "Superbolts" nuts for the relief valve inlet joint. VT-1 visual examination results acceptable.
 - 5) Installed replacement relief valve with Serial No N63790-03-0060 with set pressure of 1205 Psig at rated temperature of 575° F.
 - 6) Installed VT-1 visually examined twelve (12) new "Superbolts" nuts for the relief valve inlet joint. Note - None of the existing standard (regular) nuts were reused.
 - 7) Installed sixteen (16) new "Superbolts" bolts for the relief valve outlet joint. Note - None of the existing standard (regular) bolts were reused.
 - 8) 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 N63790-03-0060 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 N63790-03-0060 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 5) ** The replacement relief valve Serial No N63790-00-0060 was previously modified (upgraded) to Serial No N63790-03-0060 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.



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

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

Test Pressure: 1030 Psig

Test Temperature: 199.8° 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 N63790-03-0060, 2) See attached NV-1 (Pre - Modification) Code Data Report for relief valve Serial No N63790-00-0060, 3) * The test pressure and the test temperature on the relief valve inlet joint was recorded during ASME Section XI pressure test which was performed in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh

Signed By

Kuldip Singh

Kuldip Singh - Program Lead Engineer (PLE)

Kuldip Singh - Program Lead Engineer (PLE)

Date

6/19/03

Date

6/19/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-7-03 to 6-30-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

M. M. [Signature]

Inspector's Signature

Commissions

71864 / 7184 N.I. M.

National Board, State, and Endorsements

Date

6-30-03

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

Relief Sup 5
#19103

1. Work performed by: NWS Technologies, LLC Purchase Order # 00313236 Rev. 2
131 Venture Boulevard, Spartanburg, SC 29306
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.

<u>HB-65-BP-FN</u> (type)	new s/n: <u>N63790-03-0060</u> (mfr's S/N)	<u>N/A</u> (NB#)	<u>steam</u> (service)	<u>6 x 10</u> (size)	<u>1980</u> (yr. built)
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d: Construction Code: ASME Sec. III Div. 1 1971 N/A N/A 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, 2006.
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2006.
4/22/03 NWS Technologies, LLC *Cesar V. Sierra* Manager, QA
Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Charles F. Toegel Jr. holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of North Carolina and employed by Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 22 APR 2003 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.
4/22/03 *Charles F. Toegel Jr.* NB # 8462, A, N, I NC# 1073
Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.)

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

1. Work performed by: **NWS Technologies, LLC** Purchase Order # **00313238 Rev. 2**
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: **N63790-03-0060**

11. Description of work:

NWS Traveler # 03-68

The valve was disassembled. The nozzle and disc were removed for NDE. Both were replaced. The old parts was packaged for return to site.

New disc: N97499-33-0026 was installed.

New nozzle: N97498-53-0167

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: N/A

During the initial repair, accelerometer mounts were installed on the spindle and spring as directed by CGS engineering. The valve was tested to ensure mount integrity. During the jack and lap, accelerometers were installed on the mounts.

After reassembly, the valve set-pressure was certified using steam as the lift medium.

The valve was then jacked and lapped to restore seat integrity.

A final steam seat tightness test was then done at 93% of set-pressure.

4/22/03
Date

NWS Technologies, LLC
(repair organization)


(authorized representative)

Manager, QA
(title)

4/22/03
Date


Inspector's Signature

NB# 8462, A,N,I NC# 1073

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

CROSBY**CROSBY VALVE & GAGE COMPANY**
WRENTHAM, MASS*Quincy*
4/9/03FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES
As Required by the Provisions of the ASME Code Rules

Q.C.-44D

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093
Name and Address
- Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A
General Electric Company, 175 Curtner Ave.,
2. Manufactured For San Jose, CA 95125 Order No. 205-AJ986
Name and Address
3. Owner Washington Public Power Supply System, Richland, Washington 99352
Name and Address
4. Location of Plant Hanford Reservation, Richland, Washington 99352
5. Valve Identification MPL #B22-F013 Serial No. N63790-00-0060 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) 1205 5750 F
Rated Temperature
- Stamped Capacity 906,621 @ 3 Overpressure --- Blowdown (psig) 2% to 11%
- Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve)
1100 psig (Body Only)
(Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings		
Body	N93183-35-0079	ASTM A105-71 Gr. II ASME SA105 Gr. II
Bonnet	N93407-35-0042	ASTM A105-71 Gr. II ASME SA105 Gr. II
b. Bar Stock & Forgings		
Support Disc Insert	N93185-34-0092	ASME SA637 Gr. 718
Nozzle	N93184-33-0064	ASME SA182 Gr. F316
Disc Holder K55484-45-0185	N89714-37-0224	AMS 5662B
Spring Washers K62858-35-0042	K62856-35-0098 K62857-35-0063	ASTM A105-71 Gr. II ASME SA105 Gr. II
Adjusting Bolt	N93410-33-0067	ASME SA193 Gr. B6
Spindle Point K62873-35-0060	*N89720-34-0071	ASTM A564-71 Type 630 ASME SA564 Type 630
c. Spring K62858-35-0042	*N89722-0018	ASTM A304-66 Gr. 4161H
d. Bolting		
Spindle Ball	N93213-0060	7X00380153
e. Other Pieces		
Thrust Bearing Adapter	N93409-32-0062	ASME SA193 Gr. B6
Bonnet Stud (BW5)	N93207-0717 thru 0728	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Bonnet Stud Nut (J87)	N93210-0937 thru 0948	ASME SA194 Gr. 2H
Inlet Stud (BW6)	N93216-0721 thru 0730,	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Inlet Stud Nut (BW8)	N93218-0723 thru 0734	ASTM A194-71 Gr. 2H ASME SA194 Gr. 2H

Valve originally modification consisted of: ~~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.

NI 3790-00-0060

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. Cavanaugh
(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 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 19 80
Signed [Signature] Commissions MASS. 1266
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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

ZX00380154



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(13)-4CL2	WPPSS *	RCIC(13)-4CL2-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RCIC-V-25	Borg Warner	94WS0006	N/A	N/A	1994	Replaced	Yes, Code Class 2
RCIC-V-25	Flowserve	E959R-1-3	N/A	N/A	2003	Replacement	Yes, Code Class 2
RCIC-V-26	Borg Warner	26413	N/A	N/A	1978	Replaced	Yes, Code Class 2
RCIC-V-26	Flowserve	E959R-1-1	N/A	N/A	2003	Replacement	Yes, Code Class 2
RCIC-V-54	Borg Warner	26409	N/A	N/A	1978	Replaced	Yes, Code Class 2
RCIC-V-54	Flowserve	E959R-1-2	N/A	N/A	2003	Replacement	Yes, Code Class 2

7. Description Of Work Performed: Replaced existing valves RCIC-V-25, RCIC-V-26, RCIC-V-54 and piping material associated with the valves. The replacement work was performed as follows:

- 1) Removed existing valve RCIC-V-25, Serial No 94WS0006.
- 2) Removed existing valve RCIC-V-26, Serial No 26413.
- 3) Removed existing valve RCIC-V-54, Serial No 26409.
- 4) Installed replacement piping material such as elbows, reducing insert, tee and pipe.
- 5) Installed replacement valve RCIC-V-25, Serial No E959R-1-3.
- 6) Installed replacement valve RCIC-V-26, Serial No E959R-1-1.
- 7) Installed replacement valve RCIC-V-54, Serial No E959R-1-2.
- 8) Made required socket welds.
- 9) Performed visual examination on the final socket welds. Visual examination results acceptable.
- 10) Performed liquid penetrant (PT) examination on the final socket welds. Liquid penetrant (PT) examination results acceptable.

NOTES -

2) * 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 valves RCIC-V-25, Serial No E959R-1-3, RCIC-V-26, Serial No E959R-1-1 and RCIC-V-54, Serial No E959R-1-2 were installed is Reactor Core Isolation Cooling (RCIC) piping system RCIC(13)-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 valves RCIC-V-25, Serial No E959R-1-3, RCIC-V-26, Serial No E959R-1-1 and RCIC-V-54, Serial No E959R-1-2 are certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.



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 NPV-1 Code Data Report for the following replacement valves:

EPN No	Serial No
RCIC-V-25	E959R-1-3
RCIC-V-26	E959R-1-1
RCIC-V-54	E959R-1-2

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

7/15/03

Date

7/15/03

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 (Back — Pg. 2 of 2)

Certificate Holder's Serial No. E959R-1-1, -1-2 & -1-3

8. Design conditions 3600 psi 100 °F or valve pressure class 1500 (1)
(pressure) (temperature)
9. Cold working pressure 3600 psi at 100°F
10. Hydrostatic test 5400 psi. Disk differential test pressure 3960 psi
11. Remarks: Material: Backseats SA564-630-1100; Ht. Code: ONU

CERTIFICATION OF DESIGN

Design Specification certified by Richard L. Schlosser P.E. State WA Reg. no. 21701
 Design Report certified by N/A P.E. State Reg. no.

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. N1712 Expires 4/15/04
 Date 4/28/03 Name Flowserve Corporation Signed [Signature]
(IN 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 ~~MASSACHUSETTS~~ of Pennsylvania and employed by One Beacon America Insurance of Boston, Mass. have inspected the pump, or valve, described in this Data Report on 4-2002 4-2803, 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 4-28-03 Signed [Signature] Commissions Pennsylvania 2392
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)
Charles Young

(1) For manually operated valves only.

FORM NPV-1 (Back — Pg. 2 of 2)

Certificate Holder's Serial No. E959R-1-1, -1-2 & -1-3

8. Design conditions 3600 (pressure) psi 100 (temperature) °F or valve pressure class 1500 (1)

9. Cold working pressure 3600 psi at 100°F

10. Hydrostatic test 5400 psi. Disk differential test pressure 3960 psi

11. Remarks: Material: Backseats SA564-630-1100; Ht. Code: ONU

CERTIFICATION OF DESIGN

Design Specification certified by Richard L. Schlosser P.E. State WA Reg. no. 21701
Design Report certified by N/A P.E. State Reg. no.

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. N1712 Expires 4/15/04
Date 4/28/03 Name Flowserve Corporation 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 ~~EXEMPT~~ of Pennsylvania and employed by One Beacon America Insurance Boston, Mass. have inspected the pump, or valve, described in this Data Report on 4-20-03 4-28-03, 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 loss of any kind arising from or connected with this inspection.

Date 4-28-03 Signed [Signature] Commissions Pennsylvania 2392
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)
Charles Young

(1) For manually operated valves only.

FORM NPV-1 (Back — Pg. 2 of 2)

Certificate Holder's Serial No. E959R-1-1, -1-2 & -1-3

8. Design conditions 3600 psi 100 °F or valve pressure class 1500 (1)
(pressure) (temperature)
9. Cold working pressure 3600 psi at 100°F
10. Hydrostatic test 5400 psi. Disk differential test pressure 3960 psi
11. Remarks: Material: Backseats SA564-630-1100; Ht. Code: ONU

CERTIFICATION OF DESIGN

Design Specification certified by Richard L. Schlosser P.E. State WA Reg. no. 21701
 Design Report certified by N/A P.E. State Reg. no.


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. N1712 Expires 4/15/04
 Date 4/28/03 Name Flowserve Corporation 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 ~~MASSACHUSETTS~~ of Pennsylvania and employed by One Beacon America Insurance
8-2-02/4-28-03 Boston, Mass. have inspected the pump, or valve, described in this Data Report on 4-28-03 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  for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 4-28-03 Signed [Signature] Commissions Pennsylvania 2392
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)
Charles Young

(1) For manually operated valves only.



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: 06/03/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCIC(2)-1	WPPSS *	RCIC(2)-1-P1	N/A	N/A	1983		Yes, Code Class 2
RCIC-RV-17	Loneran	137676-2-1	N/A	N/A	1994	Replaced	Yes, Code Class 2
RCIC-RV-17	Loneran	139918-1-1	N/A	N/A	1994	Replacement	Yes, Code Class 2
							Yes, Code Class 2

7. Description Of Work Performed: Replaced existing relief valve RCIC-RV-17. The replacement work was performed as follows:

- 1) Removed existing relief valve RCIC-RV-17, Serial No 137676-2-1.
- 2) Installed replacement relief valve RCIC-RV-17, Serial No 139918-1-1.

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-RV-17, Serial No 139918-1-1 was installed is Reactor Core Isolation Cooling (RCIC) piping system RCIC(2)-1-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The replacement valve RCIC-RV-17, Serial No 139918-1-1 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 ☐ None ☒
 Test Pressure: Psig Test Temperature: °F
 Component Design Pressure: Psig Temperature: °F

9. Remarks: 1) See attached NV-1 Code Data Report for the replacement relief valve RCIC-RV-17, Serial No 139918-1-1. 2) See attached NVR-1 Report Of Repair For Valve RCIC-RV-17 Serial No 139918-1-1.

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 6/3/03

Date 6/3/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 6-17-03 to 7-1-03 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 748664/7486 N.I. NS
 National Board, State, and Endorsements

Date 7-1-03

FORM NVR-1 REPORT OF REPAIR ☒, MODIFICATION ☐, OR REPLACEMENT ☐
OF NUCLEAR PRESSURE RELIEF DEVICES

1. Work performed by ANDERSON GREENWOOD/CROSBY 00313101
(name of organization) (P.O. no., job no., etc.)
43 Kendrick St., Wrentham, MA 02093
(address)

2. Work performed for ENERGY NORTHWEST *RCIC-RV-17*
(name and address)

3. Owner ENERGY NORTHWEST *Rudip Sup3*
(name) 6/3/03
(address)

4. Name, address and identification of nuclear power plant COLUMBIA GENERATING STATION

5. a. Repaired pressure relief device SAFETY VALVE

b. Name of manufacturer KUNKLE INDUSTRIES, INC./ LONERGAN VALVE DIVISION

c. Identifying nos. NJL40JCE21-DG0122 139918-1-1 1 WATER 1 X 1 1994
(type) (mfr's serial no.) (Nat'l Bd. No.) (service) (size) (year built)

d. Construction Code ASME III 1974 W1974 - 2
(name/section/division) (edition) (addenda) (Code Case(s)) (Code Class)

6. ASME Code Section XI applicable for Inservice inspection 1974 * 1989 W1974 * None -
(edition) (addenda) (Code Case(s))

7. ASME Code Section XI used for repairs, modifications, or replacements 1974 * 1989 W1974 * None -
(edition) (addenda) (Code Case(s))

8. Construction Code used for repairs, modifications, or replacements 1974 W1974 -
(edition) (addenda) (Code Case(s))

9. Design responsibilities

10. Opening pressure 122 Blowdown (if applicable) N/A % Set pressure and blowdown adjustment
made at ANDERSON GREENWOOD/CROSBY using WATER
(location) (test medium)

11. Description of work: (include name and identifying number of replacement parts)
CERTIFY THE CAPACITY 31 4 GPM AND ORIFICE .437

12. Remarks

Form NVR-1 (Back)

Q.C. 434A
Sheet 2 of 2Certificate Holder's Serial Nos. 139918-1-1CERTIFICATE OF COMPLIANCE

I, RATU-PATZ certify that the statements made in this report are correct and the repair, modification or replacement of the pressure relief device 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. 75 to 84 to use the "VR" stamp expires JAN 14, 2004

National Board Certificate of Authorization No. 68 to use the "NR" stamp expires DEC 11, 2003

Date 11 December 03, Signed Anderson Greenwood/Crosby [Signature] QA ENG MGR.
(name of repair organization) (authorized representative) (title)

*Date 15 January 04 Signed [Signature]

CERTIFICATE OF INSPECTION

I, KENNETH HOLSTROM, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of MASSACHUSETTS and employed by *Factory Mutual Insurance Co. of Johnston, RI have

inspected the repair, modification or replacement described in this report on 12-11-02 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 the 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.

*Date 1-15-03 Signed [Signature]

Date 12-11-2002

ANI

Signed [Signature]
(Inspector)

Commissions MA-1418
(Nat'l. Bd. (incl. endorsements), and jurisdiction, and no)

* Factory Mutual System

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

Kunkle Industries, Inc.

- Manufactured and certified by Longman Valve Division, 8222 Bluffton Road, Fort Wayne, IN 46801
(Name and address of NV Certificate Holder)
- Manufactured for Washington Public Power Supply System, ACCIS PAY MD 055, P.O. Box 968, Richland, WA 99352-0968
(Name and address of Purchaser)
- Location of installation Washington Public Power Supply System, WNP-2 OPS WISE Complex, WISE #1, North Power Plant Loop, Richland, WA 99352
(Name and address)
- Valve NJL40JCE21-DG0122 Orifice size 562 (in.) Nom. inlet size 1" (in.) Outlet size 1" (in.)
(model no., series no.)
- ASME Code, Section III, Division 1: 1974 (edition) Winter 1974 (addenda date) 2 (class) N/A (Code Case no.)
- Type Spring (spring, pilot or power operated) 122 (set pressure, psig) N/A (blowdown, psi) 700 F (rated temp.) 183 (hydro. test, psig, inlet) at 33⁰ min. °F
- Identification 139918-1-1 (Cert. Holder's serial no.) N/A (CRN) A940062 Rev. 0 (drawing no.) N/A (Nat'l. Bd. no.) 1994 (year built)
- Control ring settings N/A

9. Pressure retaining items:

RCIC-RV-17

Quadrup Sup^b
6/2/03

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
XXXX Cap	J1592-4	SA-216 WCB	70 ksi
XXXX Bonnet (Assy)	H7545-13 / 841TNT /	SA-216 WCB / SA-105 /	70 ksi / 70 ksi /
XXXX	701093	SA-479 TY 316	75 ksi
XXXX Guide Pin	35486	SA-479 TY 316	75 ksi
XXXX Disk	701572	SA-479 TY 316	75 ksi
XXXX Base	H2894-9 / ATJZ /	SA-351 CF8M / SA-105 /	70 ksi / 70 ksi /
XXXX (Assy)	701093	SA-479 TY 316	75 ksi
XXXX Stem	31341	SA-479 TY 316	75 ksi
XXXX Spring	A59991	ASTM A-313 TY 316	*
XXXX Compression Screw	34601	SA-479 TY 316	75 ksi
XXXX Gag Plug Screw	30091	SA-479 TY 316	75 ksi
XXXX Spring Step	870890	SA-479 TY 316	75 ksi

10. Relieving capacity 25,950 (51.9 GPM) (steam or fluid, lb/hr) @ 10% (psig) overpressure as certified by the National Board 01/25/85 (date)

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

CERTIFICATION OF DESIGN

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

CERTIFICATE OF COMPLIANCE

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

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

Date 6-29-94 Name Longman Valve Division (NV Certificate Holder) Signed Debra A. Zitzel (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.

6/27/94

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 June 29, 1991, 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 June 29, 1991 Signed [Signature]

(Authorized Inspector)

Commissions NB9486 NIA M1610

(Not'l. Bd. (incl. endorsements) and state or prov. and no.)

Exhibit



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

1. Owner: Energy Northwest

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

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

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

7. Description Of Work Performed: Replaced existing piping material. The replacement work was performed as follows:

- 1) Removed existing piping material such as elbows, reducing inserts, coupling, flange, tee and pipe.
- 2) Installed replacement piping material such as elbows, reducing inserts, coupling, flange, tee and pipe.
- 3) Made required socket welds.
- 4) Performed visual examination on the final socket welds. Visual examination results acceptable.
- 5) Installed studs and nuts for the flanged bolted joint.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The U bolts, nuts and jam nuts (1/2 nuts) for supports for the above described replacement work were installed in accordance with ASME Section XI Plan No 2-1867.

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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/4/03

Date 6/4/03

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

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

Date: 05/31/03
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW(2)-2	WPPSS *	SW(2)-2-P1	N/A	N/A	1983	-----	Yes, Code Class 3

7. **Description Of Work Performed:** Replaced Service Water (SW) supply piping to CAC-HR-1B. The replacement work was performed as follows:

- 1) Removed existing piping material; such as such as elbows, couplings and pipe.
- 2) Installed replacement piping material such as elbows, couplings and pipe.
- 3) Made required socket welds.
- 4) Performed visual examination on the final socket welds. Visual examination results acceptable.
- 5) Installed shear lugs.
- 6) Made required welds.
- 7) Performed visual examination on the final welds. Visual examination results acceptable.
- 7) Installed new support material such as U bolts with four (4) nuts for each U bolt and jam nuts (1/2 nuts).
- 8) 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 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.


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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 215 Psig Test Temperature: 55° F
 Component Design Pressure: 309 Psig Temperature: 150° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/2/03 Date 6/2/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 12-16-02 to 7-1-03 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 Commissions 74864/7486 N I N S
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03



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: 06/02/03

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: Service Water (SW) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

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

7. Description Of Work Performed: Replaced Service Water (SW) supply piping to CAC-HR-1A. The replacement work was performed as follows:

- 1) Removed existing piping material; such as elbows, couplings and pipe.
- 2) Installed replacement piping material such as elbows, couplings and pipe.
- 3) Made required socket welds.
- 4) Performed visual examination on the final socket welds. Visual examination results acceptable.
- 5) Installed shear lugs.
- 6) Made required welds.
- 7) Performed visual examination on the final welds. Visual examination results acceptable.
- 7) Installed new support material such as U bolts with four (4) nuts for each U bolt and jam nuts (1/2 nuts).
- 8) 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 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.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 215 Psig Test Temperature: 65° F
 Component Design Pressure: 309 Psig Temperature: 150° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/2/03

Date 6/2/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 12-16-02 to 7-1-03 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 74864/7484 N I NIS
 National Board, State, and Endorsements

Date 7-1-03



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: 06/06/03

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: Service Water (SW) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW(22)-2	WPPSS *	SW(22)-2-P1	N/A	N/A	1983	-----	Yes, Code Class 3

7. Description Of Work Performed: Replaced existing piping material. The replacement work was performed as follows:

- 1) Removed existing piping material such as elbow and pipe.
- 2) Installed replacement piping material such as elbow and pipe.
- 3) Made required socket welds.
- 4) Performed visual examination on the final socket welds. Visual examination results acceptable.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/6/03 Date 6/6/03

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 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: 06/20/03

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 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-VX-264	Target Rock	9	N/A	N/A	1980	Repaired	Yes, Code Class 2

7. Description Of Work Performed: Repaired valve PI-VX-264. The repair work was performed as follows:

- 1) Cut valve body to bonnet seal weld.
- 2) Prepped body and bonnet cut surfaces.
- 3) Reinstalled the valve bonnet.
- 4) Made valve body to bonnet seal weld.
- 5) Performed visual examination on the final seal weld. Visual examination results acceptable.
- 6) Performed liquid penetrant (PT) examination on the final seal weld. Liquid penetrant (PT) examination results acceptable.

NOTES -

- 1) Disc in valve PI-VX-264, Serial No 9 was replaced in accordance with ASME Section XI Plan No 2-1821.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/20/03 Date 6/20/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 6-14-03 to 6-30-03 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. Zurek Commissions 748614 / 7486 N I NS
 Inspector's Signature National Board, State, and Endorsements

Date 6-30-03



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: 06/03/03

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 Winter 1973 Addenda, Code Case: None

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-2A	WPPSS *	RHR(1)-2A-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR(4)-1A	WPPSS *	RHR(4)-1A-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR-RV-1A	Crosby	N60597-00-0019	N/A	N/A	1990	Replaced	Yes, Code Class 2
RHR-RV-1A	Crosby	N60597-00-0018	N/A	N/A	1990	Replacement	Yes, Code Class 2

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

- 1) Removed existing relief valve RHR-RV-1A, Serial No N60597-00-0019.
- 2) Installed replacement relief valve RHR-RV-1A, Serial No N60597-00-0018.

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 RHR-RV-1A, Serial No N60597-00-0018 was installed is Residual Heat Removal (RHR) piping system RHR(1)-2A-P1 (For inlet side). 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 RHR-RV-1A, Serial No N60597-00-0018 was installed is Residual Heat Removal (RHR) piping system RHR(4)-1A-P1 (For outlet side). 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 RHR-RV-1A, Serial No N60597-00-0018 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.



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 NV-1 Code Data Report for the replacement relief valve RHR-RV-1A, Serial No N60597-00-0018.

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 6/3/03 Date 6/3/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 1-4-02 to 7-1-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

H. M. Foster Commissions 74864/7486 N I ns
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

CROSBY**CROSBY VALVE & GAGE COMPANY**

WRENTHAM, MASS.

EST. 1899 & REBUILT

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

Q.C.-40-1

DATA REPORT
Safety and Safety Relief Valves1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, MA 02093
Name and AddressModel No. JR-WR Order No. N06360 Contract Date 3/7/90 National Board No. —
Washington Public Power Supply System2. Manufactured For PO Box 968 Richland, WA 99352-0968 Order No. 204649
Name and Address3. Owner Washington Public Power Supply System
Name and AddressRHR-RV-1A4. Location of Plant Hanford IIQueddy Supply 6/3/035. Valve Identification MPL E12B001 Serial No. N60597-00-0018 Drawing No. DS-C-60597 Rev. EType Relief Orifice Size .280 Pipe Size — Inlet 3/4 Outlet 1
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch6. Set Pressure (PSIG) 500 480°
Rated Temperature FStamped Capacity 20 GPM WTR @ 70°F 10 % Overpressure — Blowdown (PSIG) 15% of SPHydrostatic Test (PSIG) Inlet 750 Complete Valve 225

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

Class 2 Edition 1974, Addenda Date Summer 1975, Case No. 1567 & N242-1
1711

Pressure Containing or Pressure Retaining Components

a. Castings	Serial No. Identification	Material Specification Including Type or Grade
Body		
KEMEX Cylinder	<u>N91851-34-0025</u>	<u>ASME SA 216 Gr. WCB</u>
b. Bar Stock and Forgings		
Support Rods		
INCH Base	<u>N91850-37-0028</u>	<u>ASME SA 479 Type 316</u>
Disc	<u>N91855-46-0092</u>	<u>ASME SB 164 CL. A</u>
Spring Washers	<u>N92220-36-0085</u> <u>N92220-36-0087</u>	<u>ASME SA 193 Gr. B6</u>
Adjusting Bolt	<u>N92221-34-0027</u>	<u>ASME SA 193 Gr. B6</u>
Spindle	<u>N92219-39-0030</u>	<u>ASME SA 193 Gr. B6</u>
K61719-39-0030		

CROSBY VALVE & GAGE COMPANY

CROSBY

VERIFIED & ACCEPTED DS
 REC. INSPECTOR
 LEVEL II DATE 10-27-90

Serial No. or
 Identification

Material Specification
 Including Type or Grade

c. Spring

XX3119-0026

ASTM B166

d. Bolting

e. Other Parts such as Pilot Components

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

Date 9/29/1990 Signed Crosby Valve & Gage Co. By J. J. Funn
 Manufacturer

Certificate of Authorization No. 1878 expires September 30, 1992

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 Arrowright Mutual Insurance Company have inspected the equipment described in this Data Report on Sept 29 1990 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 Sept 29 19 90 Factory Mutual System

W. E. Funn (Inspector) Commissions MB 1207
 National Board, State, Province and No. 1



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

1. Owner: Energy Northwest

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

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-2B	WPPSS *	RHR(1)-2B-P1	N/A	N/A	1984	-----	Yes, Code Class 2
RHR(4)-1B	WPPSS *	RHR(4)-1B-P1	N/A	N/A	1973	-----	Yes, Code Class 2
RHR-RV-1B	Crosby	N60597-00-0003	N/A	N/A	1979	Replaced	Yes, Code Class 2
RHR-RV-1B	Crosby	N60597-00-0020	N/A	N/A	1993	Replacement	Yes, Code Class 2

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

- 1) Removed existing relief valve RHR-RV-1B, Serial No N60597-00-0003.
- 2) Installed replacement relief valve RHR-RV-1B, Serial No N60597-00-0020.

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 RHR-RV-1B, Serial No N60597-00-0020 was installed is Residual Heat Removal (RHR) piping system RHR(1)-2B-P1 (For inlet side). 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 RHR-RV-1B, Serial No N60597-00-0020 was installed is Residual Heat Removal (RHR) piping system RHR(4)-1B-P1 (For outlet side). 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 RHR-RV-1B, Serial No N60597-00-0020 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.



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 NV-1 Code Data Report for the replacement relief valve RHR-RV-1B, Serial No N60597-00-0020.

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 5/31/03 Date 5/31/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 11-19-02 to 6-30-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions 74866/7486 NI NI
 Inspector's Signature National Board, State, and Endorsements

Date 6-30-03

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

PLAN No. 2-1810

Q.C. 442-1

FORM NV-1, FOR SAFETY AND SAFETY RELIEF VALVES*Welding Symbol
5/31/03*
As Required by the Provisions of the ASME Code Rules**DATA REPORT****Safety and Safety Relief Valves**

RHR-RV-1B

1. Manufactured by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address of N Certificate Holder)
Model No. JR-WR Order No. NV3000057 Contract Date 16 MAR 1993 National Board No. ---

2. Manufactured for WASHINGTON PUBLIC POWER SUPPLY Order No. 231121 C/N 2
(Name and Address)

3. Owner WASHINGTON PUBLIC POWER SUPPLY RICHLAND, WA 99352
(Name and Address)

4. Location of Plant WNP-2 OPS WHS COMPLEX WHS #1 NORTH POWER PLANT LOOP RICHLAND WA

5. Valve Identification SPARE Serial No. N60597-00-0020 Drawing No. DS-C-60597 REV. E
Type RELIEF Orifice Size 0.280 Pipe Size --- Inlet 3/4 Outlet 1
(Safety, Safety Relief, Pilot, Power Actuated) (Inch) (Inch) (Inch) (Inch)

6. Set Pressure 500 150 F
Rated Temperature
Stamped Capacity 20 GPM WTR @ 70 DEG @ 10 % Overpressure --- Blowdown (psig) 425 PSIG
Hydrostatic Test (PSIG) Inlet 750 Complete Valve 225

7. The material, design, construction and workmanship comply with ASME Code, Section I"

Class 2 Edition 1974, Addenda Date SUMMER 1975, Case No. ---

	Serial No. Identification	Material Specification Including Type or Grade
a. Castings		
Body	<u>---</u>	<u>---</u>
Bonnet	<u>---</u>	<u>---</u>
b. Bar Stock & Forgings		
Support Rods	<u>---</u>	<u>---</u>
Nozzle	<u>---</u>	<u>---</u>
Disc	<u>N91855-48-0095</u>	<u>ASME SB164 CL.A</u>
	<u>N92220-39-0094</u>	
Spring Washers	<u>N92220-39-0095</u>	<u>ASME SA193 GR. B6</u>
Adjusting Bolt	<u>N92221-36-0031</u>	<u>ASME SA193 GR. B6</u>
Spindle	<u>N92219-42-0038</u>	<u>ASME SA193 GR. B6</u>
c. Spring	<u>NX3119-0030</u>	<u>ASTM B166</u>
d. Bolting	<u>---</u>	<u>---</u>
e. Other Pieces		
BASE	<u>N91850-41-0034</u>	<u>ASME SA479 T316</u>
CYLINDER	<u>N91851-37-0028</u>	<u>ASME SA216 GR. WCB</u>
	<u>---</u>	<u>---</u>
	<u>---</u>	<u>---</u>
	<u>---</u>	<u>---</u>
	<u>---</u>	<u>---</u>
	<u>---</u>	<u>---</u>

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

Date 27 Aug 93 Signed Crosby Valve & Gage Company by Lawrence J. Pica
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 August 27, 1993 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 8-27 1993

Signed Ken J. C. Holbrook
(Inspector)

Commissions MA-1418 '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

Date: 05/13/03

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: Residual Heat Removal (RHR) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 2, 1974 Edition with Summer 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
RHR-RV-1A Disc Disc	Crosby Crosby Crosby	N60597-00-0018 N91855-46-0092 N91855-51-0102	N/A N/A N/A	N/A N/A N/A	1990 N/A N/A	----- Replaced Replacement	Yes, Code Class 2 No, Code Class 2 No, Code Class 2

7. Description Of Work Performed: Replaced disc for relief valve RHR-RV-1A. The replacement work was performed as follows:

- 1) Removed existing disc Serial No N91855-46-0092 from the relief valve.
- 2) Installed replacement disc Serial No N91855-51-0102 in the relief valve.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 5/22/03 Date 5/22/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 2-10-03 to 6-30-03 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. East Commissions 748610 / 748610 I NS
 Inspector's Signature National Board, State, and Endorsements

Date 6-30-03



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: 06/06/03

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: Residual Heat Removal (RHR) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-2B	WPPSS *	RHR(1)-2B-P1	N/A	N/A	1984	-----	Yes, Code Class 2
RHR(4)-1B	WPPSS *	RHR(4)-1B-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR-RV-25B	Loneran	509258-76-1	N/A	N/A	1979	Replaced	Yes, Code Class 2
RHR-RV-25B	Loneran	128261-1-1	N/A	N/A	1993	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 509258-76-1.
- 2) Performed VT-3 visual examination on the existing studs for the relief valve outlet (discharge) joint. VT-3 visual examination results acceptable.
- 3) Performed VT-3 visual examination on the existing nuts for the relief valve outlet (discharge) joint. VT-3 visual examination results acceptable.
- 4) Installed replacement relief valve RHR-RV-25B, Serial No 128261-1-1.
- 5) Reinstalled VT-3 visually examined existing studs for the relief valve outlet (discharge) joint
- 6) Reinstalled VT-3 visually examined existing nuts for the relief outlet valve (discharge) joint.
- 7) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

NOTES -

- 1) * 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 128261-1-1 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 128261-1-1 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 128261-1-1 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: 38.87 Psig

Test Temperature: 76.6° F

Component Design Pressure: 125 Psig

Temperature: 480° F

9. **Remarks:** See attached NV-1 Code Data Report for the replacement relief valve RHR-RV-25B, Serial No 128261-1-1.

2) * VT-2 visual examination to confirm pressure boundary integrity of the replacement relief valve RHR-RV-25B, Serial No 128261-1-1 outlet bolted joint was performed during 10CFR50, Appendix J Local Leak Rate Test (LLRT).

3) Component design pressure of 125 Psig and design temperature of 480° F is for the relief valve outlet piping.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Date

6/6/03

Date

6/6/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 11-19-02 to 6-30-03 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

748612/7486 NIS NS
National Board, State, and Endorsements

Date

6-30-03

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

Kunkle Industries Inc.

1. Manufactured and certified by Lonergan Valve Division, 8222 Bluffton Road, Fort Wayne, IN 46809
(Name and address of NV Certificate Holder)2. Manufactured for Washington Public Power Supply System, P.O. Box 968, Richland, WA 99352
(Name and address of Purchaser)3. Location of installation Washington Public Power Supply System, WNP-2 OPS WHS Complex, WHS #1, Richland, WA 99352
(Name and address)4. Valve ND30D Orifice size .1219 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 NA
(edition) (addenda date) (class) (Code Case no.)6. Type Spring 428 N/A 358°F 732 at 70 °F
(spring, pilot or power operated) (set pressure, psig) (blowdown, psig) (rated temp.) (hydro. test, psig, wet) (year built)7. Identification 128261-1-1, 128261-1-2 N/A A920112 Rev. 4 N/A 1993
(Cert. Holder's serial no.) (CRN) (drawing no.) (Mat'l. Id. no.) (year built)8. Control ring settings 2 notches down

9. Pressure retaining items:

RHR-RV-25B, SIN 128261-1-1

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	R2135-2, -3	ASME SA-216 WCB	70KSI
Bonnet or Yoke	T2457-15, -23	ASME SA-216 WCB	70KSI
Supporting Gag Plug Screw	30091	ASME SA-479 TY316	75KSI
Nozzle	H6283-9, -14	ASME SA-351 CF8M	70KSI
Disk	9E6313	ASME SA-479 TY316	75KSI
Supporting Cap	H7069-7, -22	ASME SA-216 WCB	70KSI
Supporting Ring Pin Screw	30091	ASME SA-479 TY316	75KSI
Supporting Plug Body/Bonnet	73028	ASME SA-479 TY316	75KSI
Bolting Studs	8866612	ASME SA-193 GR. B7	125KSI
Other Items Nut, Stud	6014728	ASME SA-194 GR. 2H	N/A

10. Relieving capacity 12,518 lb/hr (25 GPM) @ 10% overpressure as certified by the National Board 4/16/85
(steam or fluid, lb/hr) (psi) (date)11. Remarks: None

CERTIFICATION OF DESIGN

Design Specification certified by David M. Bosi P.E. State WA Reg. no. 20941
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, 1994Date 8-19-93 Name Kunkle Industries Inc., Lonergan Valve Division Signed David M. Bosi
(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.

026008001595

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 8-19-93, 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 8-19-93 Signed [Signature] Commissions HB 7444 (NBIA) File 840
(Authorized Inspector) (Nat'l. Bd. (incl. endorsement) and state or prov. and no.)

965100800970



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: 05/31/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Reactor Recirculation Cooling (RRC) 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
RRC(51)-4 RRC-V-20 RRC-V-20	WPPSS * Target Rock Target Rock	RRC(51)-4-P1 8 7	N/A N/A N/A	N/A N/A N/A	1983 1998 1998	Replaced Replaced Replaced	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Replaced existing valve RRC-V-20. The replacement work was performed as follows:

- 1) Removed existing valve RRC-V-20, Serial No 8.
- 2) Installed replacement valve RRC-V-20, Serial No 7.
- 3) Installed new cap screws and nuts for support associated with valve RRC-V-20.

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 replacement valve RRC-V-20, Serial No 7 was installed is Reactor Recirculation Cooling (RRC) piping system RRC(51)-4-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 2) The new replacement valve RRC-V-20, Serial No 7 is certified to comply with ASME Section III, Code Class 1, 1980 Edition with Winter 1981 Addenda requirements.



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 NPV-1 Code Data Report for the replacement valve RRC-V-20, Serial No 7.

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 5/31/03 Date 5/31/03

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 _____

PLAN No. 2-1813

Quoted by 5/30/03

FORM NPV-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES*
As Required by the Provisions of the ASME Code, Section III, Division 1

Pg. 1 of 2

1. Manufactured and certified by Target Rock: 1966E Broadhollow Rd.; E. Farmingdale, NY 11735
(name and address of N Certificate Holder)
2. Manufactured for Washington Public Power Supply System: Richland, WA
(name and address of Purchaser)
3. Location of installation WNP-2, North Power Plant Loop: Richland, WA
(name and address)
4. Model No., Series No., or Type 96T-001 Drawing 96T-001 Rev. B CRN N/A
5. ASME Code, Section III, Division 1: 1980 Winter 1981 1 None
(edition) (addenda date) (class) (Code Case no.)
6. Pump or valve Valve Nominal inlet size 1 Outlet size 1
(in.) (in.)
7. Material: Body SA479 316 Bonnet SA479 XM-19 Disc SA479 348 Bolting SA453 660

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disc Serial No.
7	N/A	2	70	63
8		7	71	64
N/A		N/A	N/A	N/A

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

(12/88) This form (E00037) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300 REPRINT 6/93

FORM NPV-1 (BACK - Pg. 2 of 2)

Certificate Holder's Serial No. 7 & 8

8. Design conditions 1550 psi 575 °F or valve pressure class N/A (1)
(pressure) (temperature)

9. Cold working pressure 3600 psi at 100 °F

10. Hydrostatic test 6575 psi. Disc differential test pressure N/A psi

11. Remarks: Indicator Tube, SA479 316, S/N 4679, 4680

Clamp Ring, SA479 XM-19, S/N 299, 293

Flange & Stub End SA182 F316 S/N 13 through 16

CERTIFICATION OF DESIGN

Design Specification certified by Abbas A. Mostala P.E. State WA Reg. No. 28777

Design Report certified by S. Karidas P.E. State NY Reg. No. 056047

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-1947 Expires 12/12/98

Date 4/16/98 Name Target Rock Signed [Signature]
(N Certificate Holder) (R. E. Glazier, Manager, Q.E.)
(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 of Province of New York and employed by Commercial Union Ins. of Boston, MA have inspected the pump, or valve, described in this Data Report on 4/16/98 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 4/16/98 Signed [Signature] N. Y. STATE COMMISSION NO. 2288
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)
COMMISSIONED IN PENN., OHIO & CONN.

(1) For manually operated valves only.



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: 06/25/03

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: Service Water (SW) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW(21)-2 SW-RV-001A SW-RV-001A	WPPSS * Crosby Crosby	SW(21)-2-P1 N67441-00-0001 N67441-00-0003	N/A N/A N/A	N/A N/A N/A	1983 1983 1991	----- Replaced Replacement	Yes, Code Class 3 Yes, Code Class 3 Yes, Code Class 3

7. Description Of Work Performed: Replaced existing relief valve SW-RV-001A. The replacement work was performed as follows:

- 1) Removed existing relief valve SW-RV-001A, Serial No N67441-00-0001.
- 2) Installed replacement relief valve SW-RV-001A, Serial No N67441-00-0003.

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-RV-001A, Serial No N67441-00-0003 was installed is Service Water (SW) piping system SW(21)-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 SW-RV-001A, Serial No N67441-00-0003 is certified to comply with ASME Section III, Code Class 3, 1974 Edition with Summer 1975 Addenda requirements.



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 NV-1 Code Data Report for the replacement relief valve SW-RV-001A, Serial No N67441-00-0003.

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 6/25/03 Date 6/25/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 11-18-02 to 6-30-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date 6-30-03

CROSBY**CROSBY VALVE & GAGE COMPANY**
WRENTHAM, MASSFORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES
As required by the Provisions of the ASME Code Rules

QC-4C-1

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, MA 02093
Name and Address
- Model No. JR-WR Order No. N06360 Contract Date 3/7/90 National Board No. —
Washington Public Power Supply System
2. Manufactured For PO Box 968 Richland, WA 99352-0968 Order No. 204649
Name and Address
3. Owner Washington Public Power Supply System
Name and Address
4. Location of Plant Hanford II SW-RV-001A Quartz Supp
6/22/93
5. Valve Identification MPL E12B001 Serial No. N67441-00-0003 Drawing No. DS-C-67441 Rev. 0
Type Relief Orifice Size .280 Pipe Size — Inlet 3/4 Outlet 1
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch
6. Set Pressure (PSIG) 275 Design 480° Rated Temperature F
Stamped Capacity 15 GPM WTR @ 70°F e 10 % Overpressure — Blowdown (PSIG) 15% of SP
Hydrostatic Test (PSIG) Inlet 750 Complete Valve 225
7. The material, design, construction and workmanship comply with ASME Code, Section III. 1711
Class 3 Edition 1974, Addenda Date SUMMER 1975, Case No. 1567&N242-1

Pressure Containing or Pressure Retaining Components

	Serial No. Identification	Material Specification Including Type or Grade
a. Castings		
Body		
XXXXXX Cylinder	<u>N91851-35-0026</u>	<u>ASME SA 216 Gr. WCB</u>
b. Bar Stock and Forgings		
Support Rods		
XXXXXX Base	<u>N91850-39-0032</u>	<u>ASME SA 479 Type 316</u>
Disc	<u>N91855-46-0091</u>	<u>ASME SB 164 CL. A</u>
Spring Washers	<u>N92220-37-0088</u> <u>N92220-37-0089</u>	<u>ASME SA 193 Gr. B6</u>
Adjusting Bolt	<u>N92221-35-0029</u>	<u>ASME SA 193 Gr. B6</u>
Spindle	<u>K51719-40-0035</u> <u>N92219-40-0035</u>	<u>ASME SA 193 Gr. B6</u>

Serial No. or
Identification

Material Specification
Including Type or Grade

c. Spring

NY4691-0005

ASTM B 166

d. Bolting

e. Other Parts such as Pilot Components

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

Date Jan 15 19 91 Signed Crosby Valve & Gage Co. By Lawrence Pires
Manufacturer

Certificate of Authorization No. 1878 expires September 30, 1992

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 Arkwright Mutual Insurance Company have inspected the equipment described in this Data Report on 1-16 19 91 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 1-16 19 91 Factory Mutual System

W. E. Hall Commissions MA 1207
(Inspector) National Board, State, Province and No. 1



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

1. Owner: Energy Northwest

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

Date: 06/25/03

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: Service Water (SW) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
SW(22)-2 SW-RV-001B SW-RV-001B	WPPSS * Crosby Crosby	SW(22)-2-P1 N67441-00-0002 N67441-00-0004	N/A N/A N/A	N/A N/A N/A	1983 1983 1991	----- Replaced Replacement	Yes, Code Class 3 Yes, Code Class 3 Yes, Code Class 3

7. Description Of Work Performed: Replaced existing relief valve SW-RV-001B. The replacement work was performed as follows:

- 1) Removed existing relief valve SW-RV-001B, Serial No N67441-00-0002.
- 2) Installed replacement relief valve SW-RV-001B, Serial No N67441-00-0004.

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-RV-001B, Serial No N67441-00-0004 was installed is Service Water (SW) piping system SW(22)-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 SW-RV-001B, Serial No N67441-00-0004 is certified to comply with ASME Section III, Code Class 3, 1974 Edition with Summer 1975 Addenda requirements.

**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 NV-1 Code Data Report for the replacement relief valve SW-RV-001B, Serial No N67441-00-0004.

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 6/28/03 Date 6/28/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 11-19-02 to 7-1-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions 7486 W / 7486 N I N S
 Inspector's Signature National Board, State, and Endorsements
 Date 7-1-03

6/19/03

CROSBY**CROSBY VALVE & GAGE COMPANY**
WRENTHAM, MASSFORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES
As required by the Provisions of the ASME Code Rules

Q.C.-44C-1

DATA REPORT
Safety and Safety Relief Valves1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, MA 02093
Name and AddressModel No. JR-WR Order No. N14550 Contract Date 11/20/90 National Board No. ---
Washington Public Power Supply System2. Manufactured For PO Box 968 Richland, WA 99352-0968 Order No. 213219
Name and Address3. Owner Washington Public Power Supply System
Name and Address4. Location of Plant Hanford 25. Valve Identification E12B001 Serial No. N67441-00-0004 Drawing No. DS-C-67441 Rev. 0
Type Relief Orifice Size 0.280 Pipe Size --- Inlet 3/4 Outlet 1
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch6. Set Pressure (PSIG) 275 480° Design Rated Temperature FStamped Capacity 15 GPM WTR @ 70°F e 10 % Overpressure --- Blowdown (PSIG) 15% of SPHydraulic Test (PSIG) Inlet 750 Complete Valve 225

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

Class 3 Edition 1974, Addenda Date Summer 1975, Case No. ---

Pressure Containing or Pressure Retaining Components

a. Castings	Serial No. Identification	Material Specification Including Type or Grade
Body		
<u>BWXXXY</u> Cylinder	<u>N91851-36-0027</u>	<u>ASME SA 216 Gr. WCB</u>
b. Bar Stock and Forgings		
Support Rods		
<u>XXXXNK</u> Base	<u>N91850-40-0033</u>	<u>ASME SA 479 Type 316</u>
Disc	<u>N91855-47-0093</u>	<u>ASME SB 164 Cl. A</u>
Spring Washers	<u>N92220-38-0090</u> <u>N92220-38-0092</u>	<u>ASME SA 193 Gr. B6</u>
Adjusting Bolt	<u>N92221-35-0030</u>	<u>ASME SA 193 Gr. B6</u>
Spindle <u>K61719-41-0036</u>	<u>N92219-41-0036</u>	<u>ASME SA 193 Gr. B6</u>

VERIFIED & ACCEPTED Paul W. Baker
REC. INSPECTOR
LEVEL IV DATE 4 8-91

LEVEL 2 DATE 4 8 -91



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: 06/06/03

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Containment Instrument Air (CIA) System**5. (a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda, Code Case: None(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,
Code Case: None**6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CIA-V-52A	Borg Warner	25910	N/A	N/A	1977	Repaired	Yes, Code Class 2

7. Description Of Work Performed: Repaired valve CIA-V-52A. The repair work was performed as follows:

- 1) Cut valve body to bonnet seal weld.
- 2) Prepped body and bonnet cut surfaces.
- 3) Reinstalled the valve bonnet.
- 4) Made valve body to bonnet seal weld.
- 5) Performed visual examination on the final seal weld. Visual examination results acceptable.
- 6) Performed liquid penetrant (PT) examination on the final seal weld. Liquid penetrant (PT) examination results acceptable.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 6/6/03 Date 6/6/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 11-15-02 to 6/30/03 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. Fust Commissions 74864 / 7486 N.I. 41
 Inspector's Signature National Board, State, and Endorsements

Date 6-30-03



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: 06/04/03

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: Containment Instrument Air (CIA) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CIA-V-58B	Borg Warner	25898	N/A	N/A	1977	Repaired	Yes, Code Class 2

7. Description Of Work Performed: Repaired valve CIA-V-58B. The repair work was performed as follows:

- 1) Cut valve body to bonnet seal weld.
- 2) Prepped body and bonnet cut surfaces.
- 3) Reinstalled the valve bonnet.
- 4) Made valve body to bonnet seal weld.
- 5) Performed visual examination on the final seal weld. Visual examination results acceptable.
- 6) Performed liquid penetrant (PT) examination on the final seal weld. Liquid penetrant (PT) examination results acceptable.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/4/03

Date 6/4/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 11-19-02 to 6-30-03 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 748612 / 7486 NIE NS
 National Board, State, and Endorsements

Date 6-30-03



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: 06/20/03

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: 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-1B1	American Standard	8-20004-02-2	29368	N/A	1976	Replacement	Yes, Code Class 3

7. Description Of Work Performed: Replaced studs and nuts for heat exchanger DCW-HX-1B1. The replacement work on the channel/tube sheet bolted joint and back channel/tube sheet bolted joint was performed as follows:

End Cover Plate To Stationary Channel Bolted Joint

- 1) Removed existing studs and nuts.
- 2) Installed twenty eight (28) replacement studs.
- 3) Installed fifty six (56) replacement nuts.
- 4) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

End Cover Plate To Floating Channel (Packed End) Bolted Joint

- 1) Removed existing studs and nuts.
- 2) Installed twenty eight (28) replacement studs.
- 3) Installed fifty six (56) replacement nuts.
- 4) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. Leakage was observed during the pressure test and was evaluated to be acceptable.



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

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

Test Pressure: 212 Psig

Test Temperature: 55° F

Component Design Pressure: 150/300 Psig

Temperature: 300/300° F

9. Remarks: 1) Component design pressure of 150 Psig and design temperature of 300° F is for heat exchanger DCW-HX-1B1 shell side. 2) Component design pressure of 300 Psig and design temperature of 300° F is for heat exchanger DCW-HX-1B1 channel side.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

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

Date 6/20/03

Date 6/20/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 05/17/03 to 07/16/03 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.

John D. Emery
Inspector's Signature

Commissions 8032 W AKIN
National Board, State, and Endorsements

Date 07/16/03



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: 06/04/03

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: 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 heat exchanger DCW-HX-1B2. The replacement work on the bolted joints was performed as follows:

End Cover/Stationary Channel Bolted Joint

- 1) Removed existing studs and nuts.
- 2) Installed twenty eight (28) replacement studs.
- 3) Installed fifty six (56) replacement nuts.
- 4) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.

End Cover/Floating Channel (Packed End) Bolted Joint

- 1) Removed existing studs and nuts.
- 2) Installed twenty eight (28) replacement studs.
- 3) Installed fifty six (56) replacement nuts.
- 4) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 209 Psig Test Temperature: 54° 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
 Kuldip Singh - Program Lead Engineer (PLE)

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

Date 6/4/03

Date 6/4/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-17-03 to 6-30-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature]
 Inspector's Signature

Commissions 7486W / 7484 N.I.W.S.
 National Board, State, and Endorsements

Date 6-30-03



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:** Condensate (COND) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 2 *, 1971 Edition with Winter 1973 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 02/22/03
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
COND(20)-1 COND-V-1060 COND-V-1060	WPPSS ** Borg Warner Borg Warner	COND(20)-1 16986 53254	N/A N/A N/A	N/A N/A N/A	N/A 1978 1980	Replaced Replacement	No, Code Class 2 * Yes, Code Class 2 Yes, Code Class 2

7. Description Of Work Performed: Replaced existing valve COND-V-1060. The replacement work was performed as follows:

- 1) Removed existing valve COND-V-1060, Serial No 16986.
- 2) Installed replacement piping material such as pipe and pipe cap.
- 3) Installed replacement valve COND-V-1060, Serial No 53254.
- 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) The existing piping system in which the replacement valve COND-V-1060, Serial No 53254 was installed is Condensate (COND) piping system COND(20)-1. This piping system is certified to comply with ASME Section III, Code Class 2 *, 1971 Edition with Winter 1973 Addenda requirements.
- 2) The replacement valve COND-V-1060, Serial No 53254 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.
- 3) * Valve COND-V-1060 is installed in a Non ASME Code stamped piping system COND(20)-1. In accordance with Columbia Generating Station's Design Specification (DS) Division 15, Section 15B.1, Page 30, Paragraph 4.1.1, this piping system is required to be in general compliance with ASME Section III, Code Class 2 requirements. General compliance is defined as meeting the intent of ASME Section III, Code Class 2 requirements without requiring the ASME Code stamp. In view of this, the purpose of the ASME Section XI plan was to capture and implement ASME Section III, Code Class 2 requirements such as material, welding, NDE, etc during replacement work. The "Construction Code" and "Replacement Code" of ASME Section III 1971 Edition with Winter 1973 Addenda was implemented for this replacement work in order to be consistent with the mandatory Code for Contract 215 ASME Code Stamped piping systems.
- 4) ** Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.



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 NPV-1 Code Data Report for the replacement valve COND-V-1060, Serial No 53254.

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 2/22/03 Date 2/22/03

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 _____

PLAN No. 2-1820

WBG BR 215-14396

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 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 Gate 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#	53253 THRU	N/A	76700-5	2	N/A	1980
(2)		53262					
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

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.

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			
Gate - N'Code	SA487 Gr. CA6NM	Rex Precision	
1T73, 4B39 & 1P51	A 296 Gr. CA6NM		
(b) Forgings			
Body - N'Code	SA 105	Pacific Forge	
4C72			
Bonnet - N'Code	SA 105	Compton Forge	
1M53			

(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 8 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.

8. 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. 1, Edition 1974.
Addenda Summer '75. Code Case No. N/A Date 2/7/80
Signed Nuclear Valve Div., Borg Warner by Maria Thores
(In Certificate Makers)
Our ASME Certificate of Authorization No. N-1254 to use the N symbol expires 10/27/81.
(Date)

Design information on file at AVD of Borg Warner, 7500 Tyroon Ave., Van Nuys, Ca. 91409
 Stress analysis report (Class 1 only) on file at N/A

(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 Lumbermen's Mutual Casualty of Long Grove, Illinois have inspected the pump, or valve, described in this Data Report on 2/7 19 80, and state that to the best of my knowledge and belief, the NC 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.

Commissions 1275 CA.
(Not B., 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:** Process Instrumentation (PI) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1974 Edition with Winter 1975 Addenda, Code Case: None
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 06/20/03
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
PI-VX-264 Disc Disc	Target Rock Target Rock Target Rock	9 N/A 978	N/A N/A N/A	N/A N/A N/A	1980 1980 1991	----- Replaced Replacement	Yes, Code Class 2 No, Code Class 2 Yes, Code Class 2

7. **Description Of Work Performed:** Replaced disc in valve PI-VX-264, Serial No 9 The replacement work was performed as follows:
 1) Removed existing disc from the valve.
 2) Installed new replacement disc Serial No 978 in the valve.

NOTES -

- 1) The remaining work such as cut valve body to bonnet seal weld, make valve body to bonnet seal weld, etc was performed in accordance with ASME Section XI Plan No 2-1807.

**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 new replacement disc, Serial No 978

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 6/20/03

Date 6/20/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 6-15-03 to 6-20-03 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. Fritts
Inspector's Signature

Commissions 74864/7486 n2 n3
National Board, State, and Endorsements

Date 6/30/03

PLAN No. 21821

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

Dulip Singh

6/19/03

Pg. 1 of 2

1. Manufactured and certified by Target Rock Corp; 1966E Broadhollow Rd; E. Farmingdale, NY 11735
(Name and address of NPT Certificate Holder)
2. Manufactured for Washington Public Power Supply System; Richland, WA 99352
(Name and address of Purchaser)
3. Location of installation WNP-2; North Power Plant Loop; Richland, WA 99352
(Name and address)
4. Type: 202337-1 SA-479 316 75 KSI N/A 1991
(drawing no.) (mat'l. spec. no.) (tensile strength) (ICRN) (year built)
5. ASME Code, Section III, Division 1: 1974 Winter 1975 2 None
(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: Spare Parts for completed valve assembly Model Nos.
79TT-001 and 83TT-001

Disc Assembly

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

Part or Appurtenance Serial Number	National Board No. in Numerical Order	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) 928	N/A	(126)	
(2) 978	N/A	(127)	
(3) 983	N/A	(128)	
(4) 1019	N/A	(129)	
(5) N/A	N/A	(130)	
(6)		(131)	
(7)		(132)	
(8) S/N 978		(133)	
(9)		(134)	
(10)		(135)	
(11)		(136)	
(12)		(137)	
(13)		(138)	
(14)		(139)	
(15)		(140)	
(16)		(141)	
(17)		(142)	
(18)		(143)	
(19)		(144)	
(20)		(145)	
(21)		(146)	
(22)		(147)	
(23)		(148)	
(24)		(149)	
(25)		(150)	

10. Design pressure N/A psi. Temp. N/A °F. Hydro. test pressure 165 psig at temp. °F
(when applicable) Ambient

* 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.

(12/88)

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

12/1/1994 10:01 AM

Certificate Holder's Serial Nos. _____ through _____

CERTIFICATION OF DESIGN

Design specifications certified by S. Rifaey/S. Fox P.E. State WA/WA Reg. no. 17626/16168
(when applicable)

Design report* certified by _____ P.E. State _____ Reg. no. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. 1948 Expires 12-12-92

Date 7/30/91 Name Target Rock Corporation Signed [Signature]
(NPT Certificate Holder) (authorized representative)
E. Bajada, Q.A. Manager

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of
New York and employed by Commercial Union Insurance Company
 of Boston, Mass. have inspected these items described in this Data Report on 7/20/91, 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 7/30/91 Signed William A. Roland N. Y. STATE COMMISSION NO. 2288
(Authorized Inspector) ALSO COMMISSIONED IN PENN., OHIO & CONN.
 Commissions [Net'l. Bd. (incl. endorsements) and state or prov. and no.]

2 4 3 0 1 1 2



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

1. Owner: Energy Northwest

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

Date: 05/13/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCIC(1)-4CL2 RCIC(50)-1 RCIC-PCV-15 RCIC-PCV-15	WPPSS * WPPSS * Fisher Controls Target Rock	RCIC(1)-4CL2-P1 RCIC(50)-1-P1 6056568 1	N/A N/A 2365 N/A	N/A N/A N/A N/A	1984 1983 1977 2003	----- ----- Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

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

- 1) Removed existing valve RCIC-PCV-15, Serial No 6056568.
- 2) Removed existing valve RCIC-V-50, Serial No 921S0404. This valve was reused by removing it from one location and installing it at a different location.
- 3) Installed replacement piping material such as reducing insert, reducing coupling and pipe.
- 4) Installed replacement valve RCIC-PCV-15, Serial No 1.
- 5) Reinstalled existing valve RCIC-V-50, Serial No 921S0404.
- 6) Made required socket welds.
- 7) Performed visual examination on the final socket welds. Visual examination results acceptable.
- 8) Performed liquid penetrant (PT) examination on the final socket welds. Liquid penetrant (PT) examination results acceptable.
- 9) Installed restricting orifice plate for RCIC-RO-9.
- 10) Installed studs and nuts associated with restricting orifice RCIC-RO-9 bolted flanged joint.
- 11) Installed material such as U bolts and jam nuts for the existing support.
- 12) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The existing ASME Code Stamped piping system in which the replacement valve RCIC-PCV-15, Serial No 1 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-PCV-15, Serial No 1 is certified to comply with ASME Section III, Code Class 2, 1995 Edition with 1996 Addenda requirements.
- 4) 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.
- 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.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ None ☐
 Test Pressure: 1350/98 Psig Test Temperature: 88/88° F
 Component Design Pressure: 1500/100 Psig Temperature: 170/170° F

9. Remarks: See attached NPV-1 Code Data Report for the replacement valve RCIC-PCV-15, Serial No 1.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 5/22/03 Date 5/22/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4-10-03 to 6-10-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

A.M. Foster Commissions 74866/7486 NIS NS
 Inspector's Signature National Board, State, and Endorsements

Date 6-10-03

FORM NPV-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES*
As Required by the Provisions of the ASME Code, Section III, Division 1

Pg. 1 of 2

1. Manufactured and certified by <u>Target Rock Corp.; 1966E Broadhollow Rd.; E. Farmingdale, NY 11735</u> (name and address of N Certificate Holder)				
2. Manufactured for <u>Energy Northwest; North Powerplant Loop; Richland, WA 99352</u> (name and address of Purchaser)				
3. Location of installation <u>Columbia Generating Station; North Power Plant Loop; Richland, WA 99352</u> (name and address)				
4. Model No., Series No., or Type <u>03Z501-001</u> Drawing <u>03Z501-001</u> Rev. <u>C</u> CRN <u>N/A</u>				
5. ASME Code, Section III, Division 1: <u>1995</u> <u>1996</u> <u>2</u> <u>None</u> (edition) (addenda date) (class) (Code Case no.)				
6. Pump or valve <u>Valve</u> Nominal inlet size <u>1</u> Outlet size <u>1</u> (in.) (in.)				
7. Material: Body <u>SA 105</u> Bonnet <u>SA479 316</u> Disc <u>N/A</u> Bolting <u>N/A</u>				
(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disc Serial No.
1	N/A	464	8	N/A
N/A				

VALVE RCIC-PCV-15, S/N 1

David S. Smith
5/13/03

* 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.

FORM NPV-1 (BACK - Pg. 2 of 2)

Certificate Holder's Serial No. 032501-001 s/n 1

8. Design conditions 1500 psi 170 °F or valve pressure class N/A (1)
(pressure) (temperature)

9. Cold working pressure 2220 psi at 100 °F

10. Hydrostatic test 3350 psi. Disc differential test pressure N/A psi

11. Remarks: _____

CERTIFICATION OF DESIGN

Design Specification certified by Jack R. Cole, Jr P.E. State WA Reg. No. 0020653

Design Report certified by Adele M. DiBiasio P.E. State NY Reg. No. 065348

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-1947 Expires 12/12/2004

Date 4/3/2003 Name Target Rock
(N Certificate Holder)

Signed R. E. Glazier, Jr
R. E. Glazier, Jr, Manager
(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 of Province of New York and employed by OneBeacon America Ins. Co. of Boston, MA have inspected the pump, or valve, described in this Data Report on 4/3/2003 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 4-3-03 Signed [Signature]
(Authorized Ins pector)

Commissions NY 2597
(Nat'l. Bd. (inc l. endorsements) and state or prov. and no.)

(1) For manually operated valves only.



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: 06/19/03

2. Plant: Columbia Generating Station

Sheet: 1 Of 1

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RFW-V-10A	Anchor Darling	1N260	N/A	N/A	1977	-----	Yes, Code Class 1

7. Description Of Work Performed: Replaced existing stuffing box with hinge pin cover for valve RFW-V-10A. The replacement work was performed as follows:

- 1) Remove existing studs and nuts from the valve stuffing box.
- 2) Removed existing stuffing box from the valve.
- 3) Performed VT-1 visual examination on six (6) new replacement studs for the hinge cover. VT-1 visual examination results acceptable.
- 4) Performed VT-1 visual examination on six (6) new replacement nuts for the hinge cover. VT-1 visual examination results acceptable.
- 5) Installed new replacement hinge pin cover on the valve.
- 6) Installed VT-1 visually examined new replacement studs for the hinge pin cover.
- 7) Installed VT-1 visually examined new replacement nuts for the hinge pin cover.
- 8) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.



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

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

Test Pressure: 1030 Psig

Test Temperature: 199.8° F

Component Design Pressure: 2790 Psig

Temperature: 100° F

9. Remarks: * The test pressure and the test temperature on the hinge pin cover bolted 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

6/19/03

Date

6/19/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4-22-03 to 7-1-03 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. F. M.
Inspector's Signature

Commissions

74860/7486 N I N S
National Board, State, and Endorsements

Date

7-1-03



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: 06/19/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RFW-V-10B	Anchor Darling	1N257	N/A	N/A	1977	-----	Yes, Code Class 1

7. Description Of Work Performed: Replaced existing stuffing box with hinge pin cover for valve RFW-V-10B. The replacement work was performed as follows:

- 1) Remove existing studs and nuts from the valve stuffing box.
- 2) Removed existing stuffing box from the valve.
- 3) Performed VT-1 visual examination on six (6) new replacement studs for the hinge cover. VT-1 visual examination results acceptable.
- 4) Performed VT-1 visual examination on six (6) new replacement nuts for the hinge cover. VT-1 visual examination results acceptable.
- 5) Installed new replacement hinge pin cover on the valve.
- 6) Installed VT-1 visually examined new replacement studs for the hinge pin cover.
- 7) Installed VT-1 visually examined new replacement nuts for the hinge pin cover.
- 8) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 2790 Psig Temperature: 100° F

9. Remarks: * The test pressure and the test temperature on the hinge pin cover bolted 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 6/19/03

Date 6/19/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4-22-03 to 7-1-03 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, 6/2486, 10 I, 105
 National Board, State, and Endorsements

Date 7-1-03



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

- 1. Owner:** Energy Northwest
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
- 2. Plant:** Columbia Generating Station
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
- 3. (a) Work Performed By:** Energy Northwest
(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
(c) Type Code Symbol Stamp: Not Applicable
(d) Certificate Of Authorization No.: Not Applicable
(e) Expiration Date: Not Applicable
- 4. Identification Of System:** Residual Heat Removal (RHR) System
- 5. (a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Summer 1972 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None
- 6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR-HX-1B	Delta Southern	35009-74-2	3490	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 eighteen (18) spare tube plugs to the required dimensions - See Note 1.

NOTES -

1) Residual Heat Removal heat exchanger RHR-HX-1B tubes were due for eddy current (EC) examination during R-16 outage. ASME Section XI Plan No 2-1825 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 eighteen (18) 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 2-1825 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.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Date

5/31/03

Date

5/31/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-3-03 to 7-1-03 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. Fint
Inspector's Signature

Commissions

7486-6 / 7486 N I NS
National Board, State, and Endorsements

Date

7-1-03



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: 06/30/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

Unit: Not Applicable

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS-V-22A	Rockwell	JV-2	81	N/A	1973		Yes, Code Class 1
Pilot disc	Rockwell	6033641-154	N/A	N/A	1989	Replaced	Yes, Code Class 1
Pilot disc	Rockwell	215585-35	N/A	N/A	1990	Replaced	Yes, Code Class 1
Main disc	Rockwell	6053657-156	N/A	N/A	1989	Replaced	Yes, Code Class 1
Main disc	Rockwell	6053657-157	N/A	N/A	1989	Replaced	Yes, Code Class 1

7. Description Of Work Performed: Replaced existing parts for valve MS-V-22A. The replacement work was performed as follows

- 1) Removed existing pilot disc (stem disc) Serial No 6033641-154 from the valve.
- 2) Removed existing main disc (piston disc) Serial No 6053657-156 from the valve.
- 3) Performed VT-3 visual examinations on the exposed surfaces of the existing studs for the valve body to bonnet joint. VT-3 visual examination results acceptable.
- 4) Performed VT-3 visual examinations on the existing nuts for the valve body to bonnet joint. VT-3 visual examination results acceptable.
- 5) Performed VT-3 visual examinations on the valve body accessible internal surfaces. VT-3 visual examination results acceptable.
- 6) Performed VT-3 visual examinations on the valve bonnet accessible internal surfaces. VT-3 visual examination results acceptable.
- 7) Installed replacement pilot disc (stem disc) Serial No 215585-35 in the valve.
- 8) Installed replacement main disc (piston disc) Serial No 6053657-157 in the valve.
- 9) Reinstalled VT-3 visually examined existing nuts for the valve body to bonnet joint.
- 10) 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 Rockwell International to Edward Valves, Inc.
- 2) See ASME Section XI Plan No's 2-1875, 2-1876 and 2-1877 for additional work performed on valve MS-V-22A.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure: 964 Psig Test Temperature: 530° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

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

Part Description	Serial No
Pilot disc (stem disc)	215585-35
Main disc (piston disc)	6053657-157

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 7/1/03 Date 7/1/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 6-17-03 to 7-1-03 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 748601/7486 N I N S
 Inspector's Signature National Board, State, and Endorsements
 Date 7-1-03

PLAN No. 2-1826.

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 ProductionPg. 1 of 1

1. Manufactured and certified by Edward Valves, Inc., 1900 S. Saunders St., Raleigh, NC 27603
(Name and address of NPT Certificate Holder)
2. Manufactured for Washington Public Power Supply System, Richland, Washington 99352
(Name and address of purchaser)
3. Location of installation Hanford II, Richland, Washington 99352
(Name and Address)
4. Type PD432885 R/T SA105 N/A N/A 1990
(Drawing no.) (Mat'l. spec. no.) (Nominal strength) (CRN) (Year built)
5. ASME Code, Section III: 1971 Winter 1971 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
(Div. 2 only)
7. Remarks: Three (3) stem disk/stem assemblies for size 26 figure 1612 JMMNTY
flite-flow balanced stop valve

8. Nom. thickness (in.) N/A Min. design thickness (in.) Per P4 Dia. ID (ft & in.) N/A Length overall (ft & in.) N/A
(Ref. 50.E36-14487)
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical Order	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(1) <u>215585-35</u>		(26)	
(2) <u>215585-36</u>		(27)	
(3) <u>215585-37</u>		(28)	
(4)		(29)	
(5)		(30)	
(6) <u>STEM DISC, S/N 215585-35</u>		(31)	
(7)		(32)	
(8) <u>FOR MS-V-22A</u>		(33)	
(9)		(34)	
(10)		(35)	
(11)	<u>Quality Sup's</u>	(36)	
(12)	<u>6/30/03</u>	(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 1250 psi. Temp. 575 °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.

(12/85)

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

2

FORM N-2 (back)

Mfr. Serial No. 215585-353637

CERTIFICATION OF DESIGN

Design specifications certified by Boyd Brooks P.E. State CA Reg. no. 13655
(when applicable)

Design report* certified by S.L. Adams III P.E. State NC Reg. no. 4187
(when applicable)

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization No. N-1563 Expires 11/26/91

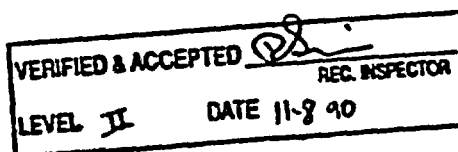
Date 9/18/90 Name Edward Valves, Inc. Signed R. L. Creach
NPT Certificate Holder (authorized representative)

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 North Carolina and employed by The Hartford Steam Boiler Inspection & Insurance Company of Hartford, CT have inspected these items described in this Data Report on 9-18-90 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 9-18-90 Signed [Signature] Commissions NC1083
(Authorized Inspector) (Natl. Bd. Incl. endorsements) State or Prov. and no.



PLAN No. 2-1826

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

As Required by the Provisions of the ASME Code, Section III, Division 1
Not To Exceed One Day's Production

Pg. 1 of 2

1. Manufactured and certified by Rockwell International Corp., 1900 S. Saunders St., Raleigh, NC 27603
(Name and address of certificate holder)
2. Manufactured for Washington Public Power Supply System, Richland, WA, 99352-0968
(Name and address of purchaser)
3. Location of installation Hanford II, Richland, WA 99352
(Name and address)
4. Type PD-422885 R/R SA-105 N/A N/A 1989
(Drawing no.) (mat'l. spec. no.) (Nominal strength) (CRG) (Year built)
5. ASME Code, Section III: 1971 Winter 1971 1 N/A
(Edition) (Addenda) (Block) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(Yes)
7. Remarks: Five (5) Disk for 26" 1612 JMMNTY Main Steam Isolation Valve.

Rockwell S.O. No. 36-07399

8. Nom. thickness (in.) N/A Min. design thickness (in.) Per #4 Dia. ID (ft. & in.) N/A Length overall (ft. & in.) N/A
9. When applicable, Certificate Holders' data reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical Order	Part or Appurtenance Serial Number	National Board Number In Numerical Order
(1) 6053657-153	N/A	(26)	
(2) 6053657-154	N/A	(27)	
(3) 6053657-155	N/A	(28)	
(4) 6053657-156	N/A	(29)	
(5) 6053657-157	N/A	(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9) MAIN DISC S/N 6053657-157		(34)	
(10) FOR MS-V-22A		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14) <i>Quincy Sup</i>		(39)	
(15) 6/30/03		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 1250 psi Temp. 575 °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.

(8/85)-1

This form (E00040) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017.

Mfr. Serial No. 6053657-153-157

CERTIFICATE OF DESIGN

Design specifications certified by Boyd Brooks P. E. state CA Reg. no. 13655
(when applicable)

Design report* certified by Salathiel Liell Adams, III P. E. state NC Reg. no. 4187
(when applicable)

CERTIFICATE OF SHOP COMPLIANCE

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

PT Certificate of Authorization no. N-1563 Expires 11/26/91
 Date 4/7/89 Name Rockwell International Corp. Signed [Signature]
(NPT Certificate Holder) (Authorized representative)

CERTIFICATE OF SHOP INSPECTION

The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or province of North Carolina and employed by HSBI & I Co.
Hartford, CT have inspected these items described in this data report on 4-7-89 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 4-7-89 Signed [Signature] Commissions NC 1083
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state or prov. and reg.)

5390818420



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: 07/01/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with Winter 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
RFW(1)-4B RFW-V-45B RFW-V-45B	WPPSS * Borg Warner Borg Warner	RFW(1)-4B-P2 16800 921S0427	N/A N/A N/A	N/A N/A N/A	1983 1977 1993	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Replaced existing valve RFW-V-45B. The replacement work was performed as follows:

- 1) Removed existing valve RFW-V-45B, Serial No 16800.
- 2) Prepped pipe cut end on as needed basis for rewelding.
- 3) Performed liquid penetrant (PT) examination on the pipe prepped surfaces. Liquid penetrant (PT) examination results acceptable.
- 4) Installed replacement valve RFW-V-45B, Serial No 921S0427.
- 5) Made required socket weld.
- 6) Performed visual examination on the final socket weld. Visual examination results acceptable.
- 7) Performed liquid penetrant (PT) examination on the final socket weld. 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 RFW-V-45B, Serial No 921S0427 was installed is Reactor Feed Water (RFW) piping system RFW(1)-4B-P2. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The replacement valve RFW(1)-4B-P2 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.

**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 NPV-1 Code Data Report for the replacement valve RFW-V-45B, Serial No 921S0427.

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 7/1/03 Date 7/1/03

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 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES*

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

Pg. 1 of 2

1. Manufactured and certified by EM/IP INTERNATIONAL, INC. PUMP DIVISION LOS ANGELES OPERATIONS
2300 EAST VERNON AVENUE, VERNON, CA 90058
 (name and address of N Certificate Holder)
2. Manufactured for WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2 OPS WBS COMPLEX, WBS #1, RICHLAND, WA 99352
 (name and address of Purchaser)
3. Location of installation WASHINGTON PUBLIC POWER SUPPLY SYSTEM WNP-2 OPS WBS COMPLEX, WBS #1, RICHLAND, WA 99352
 (name and address)
4. Model No., Series No., or Type GLOBE Drawing 76590 Rev. M CRN N/A
5. ASME Code, Section III, Division 1: 1971 WINTER 1973 1 N/A SEE
 (edition) (addenda date) (class) (Code Case no.) REMARKS
6. Pump or valve VALVE Nominal inlet size 3/4 Outlet size 3/4
 (in.) (in.)
7. Material: Body SA-105 Bonnet N/A Disk *STELLITE 6 ALLOY 1 Bolting N/A
**ALLOY 6

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disk Serial No.
921S0427	N/A	224452 SN25	N/A	217876 SN20*
921S0428	N/A	224452 SN13	N/A	217876 SN27*
921S0429	N/A	224452 SN14	N/A	217876 SN24*
921S0430	N/A	301285 SN2	N/A	224091 SN18**
921S0431	N/A	224452A SN5	N/A	224091 SN13**
921S0432	N/A	301285 SN6	N/A	217876 SN18*
921S0433	N/A	224452A SN7	N/A	217876 SN17*
921S0434	N/A	224452A SN8	N/A	217876 SN16*
921S0435	N/A	224452A SN9	N/A	217876 SN22*
921S0436	N/A	301285 SN10	N/A	217876 SN25*
<p style="text-align: center;">RFW-V-45B, S/N 921S0427</p> <p style="text-align: center;"><i>Building Dept</i></p> <p style="text-align: center;">6/26/03</p>				

* 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.

FORM NPV-1 (Back — Pg. 2 of 2)

921S0427
THRU
921S0436

Certificate Holder's Serial No. _____

8. Design conditions _____ 3600 _____ psi _____ 100 _____ °F or valve pressure class _____ 1500# _____ (1)
(pressure) (temperature)
9. Cold working pressure _____ 3600 _____ psi at 100°F
10. Hydrostatic test _____ 5400-5450 _____ psi. Disk differential test pressure _____ 3960-4010 _____ psi

11. Remarks: BACKSEAT MATERIAL: SA-564 TP.630 COND. H-1100

CERT HOLDER'S SN: BACKSEAT SN: CERT HOLDER'S SN: BACKSEAT SN: CERT HOLDER'S SN: BACKSEAT SN:

921S0427 225647 SN5 921S0430 225647 SN9 921S0433 225647 SN4

921S0428 225647 SN8 921S0431 225647 SN1 921S0434 225647 SN10

921S0429 225647 SN3 921S0432 225647 SN2 921S0435 225647 SN6

921S0436 225647 SN7

THESE VALVES WERE MANUFACTURED TO THE 1974 EDITION W75 ADDENDA CODE EFFECTIVITY DATE AND RECONCILED IN OUR DESIGN REPORT NSR 76590 REV. D WHICH WAS APPROVED BY WASHINGTON PUBLIC POWER SUPPLY SYSTEMS.

CERTIFICATION OF DESIGN

Design Specification certified by RICHARD LESLIE SCHLOSSER P.E. State MA Reg. no. 21701
Design Report certified by RAJ CHAUDHARY P.E. State CA Reg. no. H20608

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-1130 Expires JUNE 10, 1993

Date 3-30-93 Name BN/IP INTERNATIONAL, INC. Signed [Signature]
(N Certificate Holder) (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by *ARKRIGHT MUTUAL INS. CO. of NORWOOD, MASS.

have inspected the pump, or valve, described in this Data Report on MAR. 31, 1993, 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.

***FACTORY MUTUAL ENGINEERING ASSOCIATION**

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 3/31/93 Signed [Signature] Commissions 1275 CA.
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.



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

7. **Description Of Work Performed:** Fabricated new restricting orifice plate for RCIC-RO-9. The work was performed as follows:
- 1) Cut the plate material to the required dimensions
 - 2) Fabricated/machined the orifice plate to the final dimensions.
 - 3) Final finished the orifice plate surfaces.
 - 4) Marked the required information on the handle (paddle).

NOTES -

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The new fabricated orifice plate RCIC-RO-9 was installed in accordance with ASME Section XI Plan No 2-1822.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 5/22/03 Date 5/22/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4-10-03 to 7-1-03 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 748612/7486 NE NS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03



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

1. Owner: Energy Northwest

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

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-2A	WPPSS *	RHR(1)-2A-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR(1)-2B	WPPSS *	RHR(1)-2B-P1	N/A	N/A	1984	-----	Yes, Code Class 2
RHR(1)-2C	WPPSS *	RHR(1)-2C-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR(4)-1A	WPPSS *	RHR(4)-1A-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(9)-1	WPPSS *	RHR(9)-1-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR(2)-1	WPPSS *	RHR(2)-1-P1	N/A	N/A	1983	-----	Yes, Code Class 2

7. Description Of Work Performed: Machined undersized pins for supports. The work was performed as follows:

- 1) Machined nine (9) pins for Pin Size No 1.
- 2) Performed visual examination on the final machined surfaces. Visual examination results acceptable.
- 3) Machined three (3) pins for Pin Size No 2.
- 4) Performed visual examination on the final machined surfaces. Visual examination results acceptable.
- 5) Machined sixteen (16) pins for Pin Size No 3.
- 6) Performed visual examination on the final machined surfaces. Visual examination results acceptable.
- 7) Machined ten (10) pins for Pin Size No 4.
- 8) Performed visual examination on the final machined surfaces. Visual examination results acceptable.
- 9) Machined one (1) pin for Pin Size No 5.
- 10) Performed visual examination on the final machined surfaces. Visual examination results acceptable.

NOTES -

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The machined undersized pins were installed when the existing snubbers were replaced with rigid struts for the following supports: RHR-373, RHR-414, RHR-416, RHR-419, RHR-983N, RHR-218, RHR-403, RHR-449, RHR-454, RHR-503, RHR-946N, RHR-947N, RHR-954N, RHR-183, RHR-906N, RHR-210, RHR-993N and RHR-401.
- 3) The machined undersized pins were installed for the above listed supports in accordance with ASME Section XI work plans 2-1831, 2-1833, 2-1834 and 2-1835.
- 4) ASME Section III, Code Class NF(2) for the pins. ASME Section III, Code Class NF(1) pins for ASME Section III, Code Class NF(2) application.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh

Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh

Kuldip Singh - Program Lead Engineer (PLE)

Date

6/26/03

Date

6/26/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4-7-02 to 6-30-02 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.

N.M. East

Inspector's Signature

Commissions

748614/7486 NJS MS

National Board, State, and Endorsements

Date

6-30-02



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: 06/26/03

Sheet: 1 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: Residual Heat Removal (RHR) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-2A	WPPSS *	RHR(1)-2A-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR(1)-2B	WPPSS *	RHR(1)-2B-P1	N/A	N/A	1984	-----	Yes, Code Class 2
RHR-373(S)	Pacific Scientific	228	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-373(R)	Lisega	NR-1234-1-1	N/A	N/A	1992	Replacement	No, Code Class***
RHR-414(N)(S)	Pacific Scientific	2353	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-414(S)(S)	Pacific Scientific	2586	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-414(N)(R)	Lisega	NR-1234-2-21	N/A	N/A	1992	Replacement	No, Code Class***
RHR-414(S)(R)	Lisega	NR-1234-2-28	N/A	N/A	1992	Replacement	No, Code Class***
RHR-416(T)(S)	Pacific Scientific	9906	N/A	N/A	1981	Replaced	No, Code Class**
RHR-416(B)(S)	Pacific Scientific	9934	N/A	N/A	1981	Replaced	No, Code Class**
RHR-416(T)(R)	Lisega	NR-1234-3-3	N/A	N/A	1992	Replacement	No, Code Class***
RHR-416(B)(R)	Lisega	NR-1234-3-21	N/A	N/A	1992	Replacement	No, Code Class***
RHR-419(E)(S)	Pacific Scientific	4432	N/A	N/A	-----	Replaced	Yes, Code Class**
RHR-419(W)(S)	Pacific Scientific	4475	N/A	N/A	-----	Replaced	Yes, Code Class**
RHR-419(E)(R)	Lisega	NR-1234-2-2	N/A	N/A	1992	Replacement	No, Code Class***
RHR-419(W)(R)	Lisega	NR-1234-2-15	N/A	N/A	1992	Replacement	No, Code Class***
RHR-983N(S)	Pacific Scientific	2141	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-983N(R)	NPS	NA-2765-002-13	N/A	N/A	1990	Replacement	Yes, Code Class***
RHR-218(E)(S)	Pacific Scientific	308	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-218(W)(S)	Pacific Scientific	104	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-218(E)(R)	Lisega	NR-1234-2-2	N/A	N/A	1992	Replacement	No, Code Class***
RHR-218(W)(R)	Lisega	NR-1234-2-15	N/A	N/A	1992	Replacement	No, Code Class***
RHR-403(S)	Pacific Scientific	621	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-403(R)	Lisega	NR-1234-1-2	N/A	N/A	1992	Replacement	No, Code Class***
RHR-449(S)(S)	Pacific Scientific	2534	N/A	N/A	1978	Replaced	Yes, Code Class**
RHR-449(N)(S)	Pacific Scientific	2532	N/A	N/A	1978	Replaced	Yes, Code Class**
RHR-449(S)(R)	NPS	NA-2765-002-11	N/A	N/A	1990	Replacement	Yes, Code Class***
RHR-449(N)(R)	NPS	NA-2765-002-14	N/A	N/A	1990	Replacement	Yes, Code Class***
RHR-454(S)	Pacific Scientific	2118	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-454(R)	NPS	NA-2765-002-3	N/A	N/A	1990	Replacement	Yes, Code Class***

7. Description Of Work Performed: Replaced existing snubbers with rigid struts for supports RHR-373, RHR-414, RHR-416, RHR-419, RHR-983N, RHR-218, RHR-403, RHR-449, RHR-454 and RHR-503. 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) Installed new under sized pins.

Continued On Sheet 2 of 2



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

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

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

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

Support No	Serial No
RHR-983N	NA-2765-002-13
RHR-449(S)	NA-2765-002-11
RHR-449(N)	NA-2765-002-14
RHR-454	NA-2765-002-3

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 6/26/03 Date 6/26/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4-30-03 to 6-30-03 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 748600 / 7486 R.T. WS
 Inspector's Signature National Board, State, and Endorsements

Date 6-30-03



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: 06/26/03
Sheet: 2 Of 2
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-503(S) RHR-503(R)	Pacific Scientific NPS	8687 NA-2765-003-4	N/A N/A	N/A N/A	1981 1990	Replaced Replacement	No, Code Class** Yes, Code Class***

7. Description Of Work Performed:

Continuation From Sheet 1 of 2

- 4) Torqued the rigid strut assemblies to the required torque values.
5) Verified that the replacement rigid struts were properly installed and that all fasteners were secure.
6) 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) (N) - North
4) (S) - South
5) (E) - East
6) (W) - West
7) (T) - Top
8) (B) - Bottom
9) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
10) ** ASME Section III, Code Class NF snubbers.
11) *** 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.
12) The existing ASME Code Stamped piping systems in which the ASME Section III, Code Class NF (1) replacement rigid struts were installed are Residual Heat Removal (RHR) piping systems RHR(1)-2A-P1 and RHR(1)-2B-P1. These piping systems are certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
13) ASME Section III, Code Class NF(2) for the pins. ASME Section III, Code Class NF(1) pins for ASME Section III, Code Class NF(2) application.

PLAN No. 2-1831

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-983N, SIN NA-2765-002-13			
(5)			RHR-449(S), SIN NA-2765-002-11			
(6)	*NA-2765-002-1		RHR-449(N), SIN NA-2765-002-14			
(7)	THRU		RHR-454, SIN NA-2765-002-13			
(8)	NA-2765-002-15					
(9)						
(10)						

VERIFIED & ACCEPTED

LEVEL II

R.I. Inspector

Date 5/18/90

6/25/03

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.

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. 2-1831

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-041	REPLACEMENT	1	N/A	1990
(2)		REV.0	SNUBBER			
(3)			SMR-35			
(4)						
(5)			PRR-503, S/N NA-2765-003-4			
(6)			*NA-2765-003-1			
(7)			THRU			
(8)			NA-2765-003-4			
(9)						
(10)						

VERIFIED & ACCEPTED

6-4-90

LEVEL III R.I. Inspector Date

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 MAY 4 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 or BOSTON, MASSACHUSETTS
have inspected the parts for the component supports described in this Data Report on 5/4/90 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 5/4/90
Signed [Signature] Commissions T-1083
(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 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: 06/26/03

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 Winter 1973 Addenda, Code Case: None

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-2C	WPPSS *	RHR(1)-2C-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR-39(N)(S)	Pacific Scientific	4489	N/A	N/A	-----	Replaced	Yes, Code Class**
RHR-39(S)(S)	Pacific Scientific	4429	N/A	N/A	-----	Replaced	Yes, Code Class**
RHR-39(N)(R)	Lisega	NR-1234-2-7	N/A	N/A	1992	Replacement	No, Code Class***
RHR-39(S)(R)	Lisega	NR-1234-2-6	N/A	N/A	1992	Replacement	No, Code Class***
RHR-42(S)	Pacific Scientific	258	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-42(R)	Lisega	NR-1234-2-19	N/A	N/A	1992	Replacement	No, Code Class***

7. Description Of Work Performed: Replaced existing snubbers with rigid struts for supports RHR-39 and RHR-42. 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) Torqued 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) (N) - North
- 4) (S) - South
- 5) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 6) ** ASME Section III, Code Class NF snubbers.
- 7) *** 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.
- 8) 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)-2C-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/26/03 Date 6/26/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4/30/03 to 6/30/03 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 Commissions 7486 W / 7486 N I W S
 Inspector's Signature National Board, State, and Endorsements

Date 6/30/03



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: 06/26/03

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

Sheet: 1 Of 2

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: Residual Heat Removal (RHR) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(4)-1A	WPPSS *	RHR(4)-1A-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR(4)-1B	WPPSS *	RHR(4)-1B-P1	N/A	N/A	1984	-----	Yes, Code Class 2
RHR-946N(S)	Pacific Scientific	4438	N/A	N/A	-----	Replaced	Yes, Code Class**
RHR-946N(R)	Lisega	NR-1234-2-5	N/A	N/A	1992	Replacement	No, Code Class***
RHR-947N(B)(S)	Pacific Scientific	3882	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-947N(T)(S)	Pacific Scientific	3905	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-947N(B)(R)	Lisega	NR-1234-2-24	N/A	N/A	1992	Replacement	No, Code Class***
RHR-947N(T)(R)	Lisega	NR-1234-2-18	N/A	N/A	1992	Replacement	No, Code Class***
RHR-948N(B)(S)	Pacific Scientific	2580	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-948N(T)(S)	Pacific Scientific	2789	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-948N(B)(R)	Lisega	NR-1234-2-29	N/A	N/A	1992	Replacement	No, Code Class***
RHR-948N(T)(R)	Lisega	NR-1234-2-27	N/A	N/A	1992	Replacement	No, Code Class***
RHR-952N(S)	Pacific Scientific	657	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-952N(R)	Lisega	NR-1234-2-22	N/A	N/A	1992	Replacement	Yes, Code Class**
RHR-954N(W)(S)	Pacific Scientific	125	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-954N(E)(S)	Pacific Scientific	126	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-954N(W)(R)	NPS	NA-2295-025-8	N/A	N/A	1992	Replacement	Yes, Code Class***
RHR-954N(E)(R)	NPS	NA-2295-025-7	N/A	N/A	1992	Replacement	Yes, Code Class***
RHR-183(E)(S)	Pacific Scientific	122	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-183(W)(S)	Pacific Scientific	281	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-183(E)(R)	Lisega	NR-1234-3-5	N/A	N/A	1992	Replacement	No, Code Class***
RHR-183(W)(R)	Lisega	NR-1234-3-15	N/A	N/A	1992	Replacement	No, Code Class***
RHR-906N(NW)(S)	Pacific Scientific	696	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-906N(SE)(S)	Pacific Scientific	293	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-906N(NW)(R)	Lisega	NR-1234-3-10	N/A	N/A	1992	Replacement	No, Code Class***
RHR-906N(SE)(R)	Lisega	NR-1234-3-2	N/A	N/A	1992	Replacement	No, Code Class***

7. Description Of Work Performed: Replaced existing snubbers with rigid struts for supports RHR-946N, RHR-947N, RHR-948N, RHR-952N, RHR-954N, RHR-183, RHR-906N and RHR-959N. 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) Installed new under sized pins.
- 4) Torqued the rigid strut assemblies to the required torque values.
- 5) Verified that the replacement rigid struts were properly installed and that all fasteners were secure.

Continued On Sheet 2 of 2



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

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

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

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

Support No

Serial No

RHR-954N(W)

NA-2295-025-8

RHR-954N(E)

NA-2295-025-7

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Date

6/26/03

Date

6/26/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4-30-03 to 6-30-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

J. M. Foster
Inspector's Signature

Commissions

741614/7416 N.I. N.J.
National Board, State, and Endorsements

Date

6/30/03



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: 06/26/03

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: Residual Heat Removal (RHR) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR-959N(NE)(S)	Pacific Scientific	2523	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-959N(SW)(S)	Pacific Scientific	2366	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-959N(NE)(R)	Lisega	NR-1234-2-6	N/A	N/A	1992	Replacement	No, Code Class***
RHR-959N(SW)(R)	Lisega	NR-1234-2-9	N/A	N/A	1992	Replacement	No, Code Class***

7. Description Of Work Performed:

Continuation From Sheet 1 of 2

6) 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) (NW) - North West

4) (SE) - South East

5) (NE) - North East

6) (SW) - South West

7) (E) - East

8) (W) - West

9) (T) - Top

10) (B) - Bottom

11) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.

12) ** ASME Section III, Code Class NF snubbers.

13) *** 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.

14) The existing ASME Code Stamped piping systems in which the ASME Section III, Code Class NF (1) replacement rigid struts were installed are Residual Heat Removal (RHR) piping systems RHR(4)-1A-P1 and RHR(4)-1B-P1. These piping systems are certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.

15) ASME Section III, Code Class NF(2) for the pins. ASME Section III, Code Class NF(1) pins for ASME Section III, Code Class NF(2) application.

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 BLVD., AUSTIN, TEXAS 78758
(Name and address of NPT Certificate Holder)
2. Manufactured for WASHINGTON PUBLIC POWER SUPPLY SYSTEM, PO 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 | NPS-140 | REPLACEMENT | 1 | N/A | 1988 |
| (2) | | REV.0 | SNUBBER | | | |
| (3) | | | SMR-1 | | | |
| (4) | | | | | | |
| (5) | *NA-2295-025-1 | | RHR-954N(W), SIN NA-2295-025-8 | | | |
| (6) | THRU | | RHR-954N(E), SIN NA-2295-025-7 | | | |
| (7) | NA-2295-025-15 | | | | | |
| (8) | | | | | | |
| (9) | | | | | | |
| (10) | | | | | | |
- Handy Sup*
6/26/03

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 MARCH 25 19 88. Signed NPS INDUSTRIES by SANDY REYNOLDS
(NPT Certificate Holder)

Our ASME Certificate of Authorization No. N-2689 to use the NPT Symbol expires JULY 12, 1988
(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 *HSBI&I CO. of HARTFORD, CONNECTICUT
have inspected the parts for the component supports described in this Data Report on 3/25 19 88 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 3/25/88
Signed [Signature] Commissions TEXAS 1186
(Inspector, State, Province, and No.)



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

1. Owner: Energy Northwest

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

Date: 06/26/03

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: Residual Heat Removal (RHR) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(9)-1	WPPSS *	RHR(9)-1-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR-206(S)	Pacific Scientific	610	N/A	N/A	1977	Replaced	Yes, Code Class**
RHR-206(R)	Lisega	NR-1234-1-4	N/A	N/A	1992	Replacement	No, Code Class***
RHR-210(S)	Pacific Scientific	111	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-210(R)	NPS	NA-2765-002-1	N/A	N/A	1990	Replacement	Yes, Code Class***
RHR-993N(S)	Pacific Scientific	22349	N/A	N/A	1982	Replaced	Yes, Code Class***
RHR-993N(R)	Lisega	NR-1234-1-5	N/A	N/A	1992	Replacement	No, Code Class***

7. Description Of Work Performed: Replaced existing snubbers with rigid struts for supports RHR-206, RHR-210 and RHR-993N.

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) Installed new under sized pins.
- 4) Torqued the rigid strut assemblies to the required torque values.
- 5) Verified that the replacement rigid struts were properly installed and that all fasteners were secure.
- 6) 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(9)-1-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 7) ASME Section III, Code Class NF(2) for the pins. ASME Section III, Code Class NF(1) pins for ASME Section III, Code Class NF(2) application.


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

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

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

Support No
RHR-210

Serial No
NA-2765-002-1

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/26/03 Date 6/26/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4-30-03 to 6-30-03 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 NI NJ
 Inspector's Signature National Board, State, and Endorsements

Date 6-30-03

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-1/2			
(4)						
(5)			PAR-210, S/N NA-2765-002-1			
(6)	*NA-2765-002-1					
(7)	THRU					
(8)	NA-2765-002-15					
(9)						
(10)						

VERIFIED & ACCEPTED 6/26/03 SD
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 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 Texas
(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 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: 06/26/03

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: Residual Heat Removal (RHR) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(2)-1	WPPSS *	RHR(2)-1-P1	N/A	N/A	1983	-----	Yes, Code Class 2
RHR-400(S)	Pacific Scientific	369	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-400(R)	NPS	NA-2765-002-4	N/A	N/A	1990	Replacement	Yes, Code Class***
RHR-401(B)(S)	Pacific Scientific	123	N/A	N/A	1976	Replaced	Yes, Code Class**
RHR-401(T)(S)	Pacific Scientific	4006	N/A	N/A	1978	Replaced	No, Code Class**
RHR-401(B)(R)	NPS	NA-2765-002-6	N/A	N/A	1990	Replacement	Yes, Code Class***
RHR-401(T)(R)	NPS	NA-2765-002-7	N/A	N/A	1990	Replacement	Yes, Code Class***

7. Description Of Work Performed: Replaced existing snubbers with rigid struts for supports RHR-400 and 401. 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) Installed new under sized pins.
- 4) Torqued the rigid strut assemblies to the required torque values.
- 5) Verified that the replacement rigid struts were properly installed and that all fasteners were secure.
- 6) 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) (T) - Top
- 4) (B) - Bottom
- 5) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 6) ** ASME Section III, Code Class NF snubbers.
- 7) *** 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.
- 8) 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(2)-1-P1. This piping system is certified to comply with ASME Section III, Code Class 2, 1971 Edition with Winter 1973 Addenda requirements.
- 9) ASME Section III, Code Class NF(2) for the pins. ASME Section III, Code Class NF(1) pins for ASME Section III, Code Class NF(2) application.



PLAN No 2-1835

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

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

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

Support No	Serial No
RHR-400	NA-2765-002-4
RHR-401(B)	NA-2765-002-6
RHR-401(T)	NA-2765-002-7

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 6/26/03 Date 6/26/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4-30-03 to 6-30-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions 74866/7486 NZ NJ
Inspector's Signature National Board, State, and Endorsements

Date 6-30-03

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-1/2			
(4)			PHR-400, SIN NA-2765-002-4			
(5)			PHR-401(B), SIN NA-2765-002-6			
(6)	*NA-2765-002-1		PHR-401(T), SIN NA-2765-002-7			
(7)	THRU					
(8)	NA-2765-002-15					
(9)						
(10)						

VERIFIED & ACCEPTED [Signature]
LEVEL II R.I. Inspector Date 5/18/90
6/26/03

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
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.



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 Feedwater (RFW) System
- 5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Winter 1972 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: N-416-1
- 6. Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 06/19/03
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
RFW-V-10A	Anchor Darling	1N260	N/A	N/A	1977	-----	Yes, Code Class 1

7. Description Of Work Performed: Replaced existing threaded hinge pin plug with welded hinge pin plug for valve RFW-V-10A. The replacement work was performed as follows:

- 1) Removed existing threaded hinge pin plug from the valve.
- 2) Installed new replacement welded hinge pin plug in the valve.
- 3) Made required weld.
- 4) Performed visual examination on the final weld. Visual examination results acceptable.
- 5) Performed liquid penetrant (PT) examination on the final weld. Liquid penetrant (PT) examination results acceptable.
- 6) 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) The liquid penetrant (PT) examination on the final weld was performed in accordance with the requirements of ASME Section III, Code Class 1, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 2) The VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint 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.



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

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

Test Pressure: 1030 Psig

Test Temperature: 199.8° F

Component Design Pressure: 2790 Psig

Temperature: 100° F

9. Remarks: * The test pressure and the test temperature on the hinge pin cover bolted 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

6/19/03

Date

6/19/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 6-4-03 to 7-1-03 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

748614/7486 NIS MS
National Board, State, and Endorsements

Date

7-1-03



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: 05/22/03

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: Residual Heat Removal (RHR) 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
RHR-V-60A	Marotta	101	1237	N/A	1981	-----	Yes, Code Class 2

7. Description Of Work Performed: Replaced existing poppet for valve RHR-V-60A. The replacement work was performed as follows:

1) Removed existing valve poppet.

2) Installed replacement valve poppet in the valve.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 5/22/03 Date 5/22/03

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 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: 05/22/03

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: Residual Heat Removal (RHR) 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
RHR-V-75A	Marotta	103	1239	N/A	1981	-----	Yes, Code Class 2

7. Description Of Work Performed: Replaced existing poppet for valve RHR-V-75A. The replacement work was performed as follows:

- 1) Removed existing valve poppet.
- 2) Installed replacement valve poppet in the valve.

NOTES-

- 1) Valve parts for Marotta valves are manufactured by Enertech.


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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 5/22/03 Date 5/22/03

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 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: 05/31/03

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: Service Water (SW) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

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

7. Description Of Work Performed: Replaced Service Water (SW) piping material down stream of SW-RO-2A. The replacement work was performed as follows:

- 1) Removed existing piping material such as sockolet, flange, pipe.
- 2) Beveled cut pipe ends.
- 3) Installed new section of 18" of pipe and flange.
- 4) Completed the root pass on both the 18" circumferential butt welds.
- 5) Performed visual examination on the root pass on both the 18" circumferential butt welds. Visual examination results acceptable.
- 7) Performed magnetic particle (MT) examination on the root pass for both the welds. The magnetic particle (MT) examination results acceptable.
- 6) Completed both the 18" circumferential butt welds.
- 7) Performed visual examination on both the final 18" circumferential butt welds. Visual examination results acceptable
- 8) Performed magnetic particle (MT) examination on both the final 18" circumferential butt welds. Magnetic particle (MT) examination results acceptable.
- 9) Made required socket welds.
- 10) Installed new studs and nuts for the bolted joint.
- 11) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.

NOTES -

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) The magnetic particle (MT) examination on the root pass for both the 18" welds was performed in accordance with the requirements of ASME Section III, Code Class 3, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 3) The magnetic particle (MT) examination on the final 18" circumferential butt welds was performed in accordance with the requirements of ASME Section III, Code Class 3, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.
- 4) The VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints was performed in accordance with the requirements of ASME Section XI, 1992 Edition with no Addenda to satisfy the requirements outlined in Code Case N-416-1.



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

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

Test Pressure: 138 Psig

Test Temperature: 57.6° F

Component Design Pressure: 309 Psig

Temperature: 150° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/2/03 Date 6/2/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4-27-03 to 6-30-03 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. F. [Signature] Commissions TH8611/7486 N.E. 03
Inspector's Signature National Board, State, and Endorsements

Date 6-30-03



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: 05/13/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

5. (a) Applicable Construction Code: ASME Section III, Code Class 2, 1995 Edition with 1996 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	Target Rock	1	N/A	N/A	2003	Repaired	Yes, Code Class 2

7. Description Of Work Performed: Repaired valve RCIC-PCV-15. The repair work was performed as follows:

- 1) Cut valve body to bonnet (spring housing) tack welds.
- 2) Reassemble valve parts.
- 3) Made valve body to bonnet (spring housing) tack welds.
- 4) Performed visual examination on the final tack welds. Visual examination results acceptable.



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: 1500/100 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 5/22/03 Date 5/22/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 4-22-03 to 6-30-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

H. M. Foster Commissions 748614 / 748615 NBS
 Inspector's Signature National Board, State, and Endorsements

Date 6-30-03



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 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
LPCS-V-3	Anchor Darling	2N-563	N/A	N/A	1975	-----	Yes, Code Class 2

7. **Description Of Work Performed:** Valve LPCS-V-3 was disassembled to perform work. The valve was reassembled without requiring any repair or replacement work, however the following work was performed:

- 1) Performed VT-3 visual examination on the existing hinge pin studs. VT-3 visual examination results acceptable.
- 2) Performed VT-3 visual examination on the existing hinge pin nuts. VT-3 visual examination results acceptable.
- 3) Reinstalled VT-3 visually examined existing hinge pin studs.
- 4) Reinstalled VT-3 visually examined existing hinge pin nuts.
- 5) Performed VT-3 visual examination on the existing body to bonnet studs. VT-3 visual examination results acceptable.
- 6) Performed VT-3 visual examination on the existing body to bonnet nuts. VT-3 visual examination results acceptable.
- 7) Reinstalled VT-3 visually examined existing body to bonnet studs.
- 8) Reinstalled VT-3 visually examined existing body to bonnet nuts.
- 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.


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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 325 Psig Test Temperature: 68° F
 Component Design Pressure: 720 Psig Temperature: 100° 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 6/4/03 Date 6/4/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-12-03 to 7-1-03 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 Commissions 74866/7486 N E NS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03



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 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-V-31B	Anchor Darling	2N-432	N/A	N/A	1975	-----	Yes, Code Class 2

7. Description Of Work Performed: Valve RHR-V-31B was disassembled to perform work. The valve was reassembled without requiring any repair or replacement work, however the following work was performed:

- 1) Performed VT-3 visual examination on the existing hinge pin studs. VT-3 visual examination results acceptable.
- 2) Performed VT-3 visual examination on the existing hinge pin nuts. VT-3 visual examination results acceptable.
- 3) Reinstalled VT-3 visually examined existing hinge pin studs.
- 4) Reinstalled VT-3 visually examined existing hinge pin nuts.
- 5) Performed VT-3 visual examination on the existing body to bonnet studs. VT-3 visual examination results acceptable.
- 6) Performed VT-3 visual examination on the existing body to bonnet nuts. VT-3 visual examination results acceptable.
- 7) Reinstalled VT-3 visually examined existing body to bonnet studs.
- 8) Reinstalled VT-3 visually examined existing body to bonnet nuts.
- 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.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 210 Psig Test Temperature: 70° F
 Component Design Pressure: 720 Psig Temperature: 100° 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

6/4/03

Date

6/4/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-12-03 to 6-30-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature]
Inspector's Signature

Commissions

74866/74864 N.E. N.S.
National Board, State, and Endorsements

Date

6-30-03



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: 05/22/03

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 29306

(b) Repair Organization P.O. No, Job No, etc.: PO No 313236

(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, 2006 And NR - April 09, 2006

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare Valve Disc Insert Disc Insert	Crosby Crosby Crosby	N63790-03-0051 N97499-33-0005 N97499-32-0024	N/A N/A N/A	N/A N/A N/A	1981 N/A N/A	----- Replaced Replacement	Yes, Code Class 1 No, Code Class 1 No, Code Class 1

7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-03-0045 was refurbished by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29306. 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 N97499-33-0005 from the relief valve.
- 3) Installed replacement (modified) disc insert Serial No N97499-32-0024 in the relief valve.
- 4) 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.
- 5) 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.
- 6) 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.
- 7) Reassembled the relief valve.
- 8) 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.
- 9) Tested the relief valve at set pressure of 1185 PSIG. Test results acceptable.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☒ Nominal Operating Pressure ☐ None ☐
 Test Pressure: 10 Psig Test Temperature: 75° 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 N63790-03-0051, 2) See attached NV-1 Code Data Report for Main Steam Relief Valve (MSRV), Serial No N63790-00-0051 (Post Mod Serial No N63790-03-0051), 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 5/22/03

Date 5/22/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-9-03 to 7-1-03 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 7486-01/7486-02 NBS
 National Board, State, and Endorsements

Date 7-1-03

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

Swampy Swamp

52233

1. Work performed by: NWS Technologies, LLC Purchase Order # 00313236 Rev. 2
131 Venture Boulevard, Spartanburg, SC 29306
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.

<u>HB-65-BP-FN</u> (type)	new s/n: <u>N63790-03-0051</u> (mfr's S/N)	<u>N/A</u> (NB#)	<u>steam</u> (service)	<u>6 x 10</u> (size)	<u>1981</u> (yr. built)
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d: Construction Code:

<u>ASME Sec. III Div. 1</u> (name/section/division)	<u>1971</u> (edition)	<u>N/A</u> (addenda)	<u>N/A</u> (Code Cases(s))	<u>1</u> (Code Class)
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6. ASME Code Section XI applicable for inservice inspection:

<u>1989</u> (edition)	<u>N/A</u> (addenda)	<u>N/A</u> (Code Case(s))
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7. ASME Code Section XI used for repairs, replacements:

<u>1989</u> (edition)	<u>N/A</u> (addenda)	<u>N/A</u> (Code Case(s))
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8. Construction Code used for repairs, replacements:

<u>1971</u> (edition)	<u>N/A</u> (addenda)	<u>N/A</u> (Code Case(s))
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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, 2006.

National Board Certificate of Authorization No. 81 to use the "NB" stamp expires April 9, 2006.

4/22/03 NWS Technologies, LLC Charles [Signature] Manager, QA
Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Charles F. Toegel Jr. holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of North Carolina and employed by Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 22 APR 2003 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.

4/22/03
Date

Charles F. Stege Jr.
Inspector's Signature

NB # 8462, A, N, I NC# 1073
Commissions (NB (incl endorsements), jurisdiction, & no.)

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

1. Work performed by: **NWS Technologies, LLC** Purchase Order # 00313236 Rev. 2
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: **N63790-03-0051**

11. Description of work:

NWS Traveler # 03-65

The valve was disassembled. The nozzle and disc were removed for NDE. The disc was replaced. The old disc was packaged for return to site.

New disc: N97499-33-0024 was installed.

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: N/A

During the initial repair, accelerometer mounts were installed on the spindle and spring as directed by CGS engineering. The valve was tested to ensure mount integrity. During the jack and lap, accelerometers were installed on the mounts.

After reassembly, the valve set-pressure was certified using steam as the lift medium.

The valve was then jacked and lapped to restore seat integrity.

A final steam seat tightness test was then done at 93% of set-pressure.

4/22/03
Date

NWS Technologies, LLC
(repair organization)


(authorized representative)

Manager, QA
(title)

4/22/03
Date


Inspector's Signature

NB# 8462, A,N,I NC# 1073

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

PLAN No. 2-1850

Chadwick Sup
5/22/83

CROSBY		CROSBY VALVE & GAGE COMPANY WRENTHAM, MASS	
FORM MV-1 FOR SAFETY AND SAFETY RELIEF VALVES As Required by the Provisions of the ASME Code Rules		Q.C.-44B	
DATA REPORT Safety and Safety Relief Valves			
1. Manufactured By <u>Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02793</u> Name and Address			
Model No. <u>HD-65-E2-FN</u> Order No. <u>W94275</u> Contract Date <u>4/24/79</u> National Board No. <u>N/A</u> General Electric Company, 175 Curtner Ave., San Jose, CA 95125 Order No. <u>205-A1986</u>			
2. Manufactured For <u>San Jose, CA 95125</u> Name and Address			
3. Owner <u>Washington Public Power Supply System, Richland, Washington 99352</u> Name and Address			
4. Location of Plant <u>Hanford Reservation, Richland, Washington 99352</u>			
5. Valve Identification <u>MPL #222-F013</u> Serial No. <u>N63790-00-0051</u> Drawing No. <u>DS-A-63790 Rev. C</u>			
Type <u>Safety Relief</u> Orifice Size <u>R</u> Pipe Size <u>—</u> Inlet <u>6</u> Outlet <u>10</u> Safety, Safety Relief, Pilot, Inch Inch Inch Inch Power Actuated			
6. Set Pressure (psig) <u>1185</u> <u>575</u> Rated Temperature			
Stamped Capacity <u>891,250</u> # <u>3</u> Overpressure <u>—</u> Blowdown (psig) <u>2X to 11X</u> 975 psig (Assembled Valve)			
Hydrostatic Test (psig) Inlet <u>2370</u> Outlet <u>1100 psig (Body Only)</u> (Applicable to Valves for Closed Systems Only)			
Pressure Retaining Pieces			
	Serial No. Identification	Material Specification Including Type or Grade	
a. Bar Stock & Forgings			
Body	<u>N93183-35-0070</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>	
Bonnet	<u>N93407-35-0033</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>	
b. Disc & Disc Insert			
Disc Insert	<u>N93185-34-0083</u>	<u>ASME SA637 Gr. 71i</u>	
Nozzle	<u>N93184-33-0055</u>	<u>ASME SA182 Gr. F316</u>	
Disc Holder	<u>*K55184-35-0084</u> <u>*N89714-34-0122</u>	<u>AMS 5662B</u> <u>ASTM A105-71 Gr. II</u>	
Spring Washers	<u>K62858-35-0033</u> <u>K62856-35-0089</u> <u>K62857-35-0034</u>	<u>ASME SA105 Gr. II</u>	
Adjusting Bolt	<u>N93410-33-0058</u>	<u>ASME SA193 Gr. B6</u>	
Spindle Point	<u>K62373-37-0151</u> <u>N89720-43-0146</u>	<u>ASME SA564 Type 630</u>	
c. Spring	<u>K62858-35-0033</u> <u>KX2689-0119</u>	<u>ASTM A304-66 Gr. 4161H</u>	
d. Bolting			
Spindle Ball	<u>K62873-37-0151</u> <u>N93213-0218</u>	<u>Steady #6</u>	
e. Thrust Bearing Adapter	<u>N93409-32-0053</u>	<u>ASME SA193 Gr. B6</u>	
Bonnet Stud	<u>(BW5, 117) N93207-0609 thru 0620</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>	
Bonnet Stud Nut	<u>(J87) N93210-0829 thru 0840</u>	<u>ASME SA194 Gr. 2H</u>	
Inlet Stud	<u>(BW6) N93216-0611 thru 0622</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>	
Inlet Stud Nut	<u>(BW8) N93218-0615 thru 0626</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>	
Adjusting Bolt Button	<u>K63618-33-0059</u> <u>N93411-33-0059</u>	<u>ASME SA193 Gr. B6</u>	

FOR INFORMATION ONLY

ZX00380611

3/13

Date 11-5-88 Signed Crosby Valve & Gage Co. by R. G. Givens
(N Certificate Welder)
Our ASME Certificate of Authorization No. 1878 to use the NV
symbol expires September 30, 1992.
(Date)

¹Signature not required - list name only.

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

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ZX00380,612



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 29306
(b) Repair Organization P.O. No, Job No, etc.: PO No 313236
(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, 2006 And NR - April 09, 2006
- 4. Identification Of System:** Main Steam (MS) System
- 5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None
- 6. Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 05/22/03

Sheet: 1 Of 1

Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Spare Valve	Crosby	N63790-03-0057	N/A	N/A	1980	-----	Yes, Code Class 1

7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-03-0057 was refurbished by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29306. 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) 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.
- 3) 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.
- 4) 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.
- 5) Reassembled the relief valve.
- 6) 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.
- 7) Tested the relief valve at set pressure of 1195 PSIG. Test results acceptable.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☒ Nominal Operating Pressure ☐ None ☐
 Test Pressure: 10 Psig Test Temperature: 75° F
 Component Design Pressure: 1195 Psig Temperature: 575° F

9. Remarks: 1) 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 5/24/03 Date 5/24/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-9-03 to 7-1-03 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 718610/7486 NZ MS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

CROSBY

CROSBY VALVE & GAGE COMPANY

WRENTHAM, MASS

5/4/85
PLAN No. 2-1851FORM 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

Quincy Sup 5
5/22/83

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 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 Rev.
Type Safety Relief Orifice Size R Pipe Size — Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Inch — Inch — Inch —
Power Actuated
6. Set Pressure (psig) 1195 5750 F
Rated Temperature
Stamped Capacity 899,185 @ 3 Overpressure — Blowdown (psig) 2 % to set
Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve)
1100 psig (Body Only)
(Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings		
Body	N93183-35-0076	ASTM A105-71 Gr. II
Body	N93183-35-0076	ASTM A105 Gr. II
Bonnet	N93407-35-0039	ASTM A105-71 Gr. II
		ASME SA105 Gr. II
b. Flange		
Flange Disc Insert	N93185-34-0089	ASME SA637 Gr. 718
Nozzle	N93184-33-0061	ASME SA182 Gr. F316
Disc Holder	K55484-35-0083	*N89714-34-0093
		AMS 5662B
Spring Washers	K62858-35-0039	K62856-35-0095
		ASTM A105-71 Gr. II
		ASME SA105 Gr. II
Adjusting Bolt	N93410-33-0064	ASME SA193 Gr. B6
Spindle Point	K62873-35-0057	*N89720-34-0073
		ASTM A564-71 Type 630
		ASME SA564 Type 630
c. Spring	K52858-35-0039	*N89722-0015
		ASTM A304-66 Gr. 4161 H
d. Bolting		
Spindle Ball	K62873-35-0057	N93213-0057
		Stellite #6
e. Conical Washer		
Thrust Bearing Adapter	N93409-32-0059	ASME SA193 Gr. B6
Bonnet Stud	(BW5, I17) N93207-0681 thru 0692	ASTM A193-71 Gr. B7
		ASME SA193 Gr. B7
Bonnet Stud Nut	(J87) N93210-0901 thru 0912	ASME SA194 Gr. 2H
Inlet Stud	(BW6) N93216-0683 thru 0694	ASTM A193-71 Gr. B7
		ASME SA193 Gr. B7
Inlet Stud Nut	(BW8) N93216-0687 thru 0698	ASTM A194-71 Gr. 2H
		ASME SA194 Gr. 2H

Adjusting Bolt Button
K63618-33-0066

N93411-33-0066

ASME SA193 Gr. B6

ADJUSTING BOLT, and these bearing assembly, removing of the old bearing assembly, 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.

N63790-00-0007

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. Cavanaugh
(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

²Signature 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. Cavanaugh Commissions MASS 1266
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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

ZX00380091



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: 05/22/03

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 29306

(b) Repair Organization P.O. No, Job No, etc.: PO No 313236

(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, 2006 And NR - April 09, 2006

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	N63790-03-0058	N/A	N/A	1980	-----	Yes, Code Class 1
Disc Insert	Crosby	N93185-56-0237	N/A	N/A	N/A	Replaced	No, Code Class 1
Disc Insert	Crosby	N97499-33-0028	N/A	N/A	N/A	Replacement	No, Code Class 1
Nozzle	Crosby	N93184-38-0059	N/A	N/A	N/A	Replaced	No, Code Class 1
Nozzle	Crosby	N97498-50-0150	N/A	N/A	N/A	Replacement	No, Code Class 1

7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-03-0058 was refurbished by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29306. 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 N93185-56-0237 from the relief valve.
- 3) Installed replacement (modified) disc insert Serial No N97499-33-0028 in the relief valve.
- 4) Removed existing nozzle Serial No N93184-38-0059 from the relief valve.
- 5) Installed replacement (modified) nozzle Serial No N97498-50-0150 from 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 1195 PSIG. Test results acceptable.

NOTES-

- 1) Nozzle Serial No N93184-50-0150 was previously modified (upgraded) to Serial No N97498-50-0150 by Energy Northwest in accordance with ASME Section XI Plan No 2-1779.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☒ Nominal Operating Pressure ☐ None ☐
 Test Pressure: 10 Psig Test Temperature: 75° 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 N63790-03-0058, 2) See attached NV-1 Code Data Report for Main Steam Relief Valve (MSRV), Serial No N63790-00-0058 (Post Mod Serial No N63790-03-0058), 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 5/22/03 Date 5/22/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-9-03 to 7-1-03 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 in E ns
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

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

PLAN No. 2-1852

1. Work performed by: NWS Technologies, LLC Purchase Order # 00313236 Rev. 2 5/22/03
131 Venture Boulevard, Spartanburg, SC 29306
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 new s/n: N63790-03-0058 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 N/A 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, 2006.
 National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2006.

4/22/03 NWS Technologies, LLC Cesar V. Sierra Manager, QA
 Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Charles F. Toegel Jr. holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of North Carolina and employed by Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 22 APRIL 2003 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.

4/22/03 Charles F. Toegel Jr. NB # 8462, A, N, I NC# 1073
 Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.):

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

1. Work performed by: NWS Technologies, LLC Purchase Order # 00313236 Rev. 2
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: N63790-03-0058

The S/N for this valve was N63790-00-0058 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.

CGS 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: N97499-33-0028 and Nozzle S/N: N97498-50-0150

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: N/A

NWS Traveler # 03-67

After reassembly, the valve set-pressure was certified using steam as the lift medium.

The valve was then jacked and lapped to restore seat integrity.

A final steam seat tightness test was then done at 93% of set-pressure.

4/22/03
Date

NWS Technologies, LLC
(repair organization)

Devin Leonard
(authorized representative)

Manager, QA
(title)

4/22/03
Date

Charles F. Jeger
Inspector's Signature

NB# 8462, A,N,I NC# 1073
Commissions (NB (incl endorsements), jurisdiction, & no.)

PLAN No. 2-1852

David S. Sipe
5/22/03

CROSBY		CROSBY VALVE & GAGE COMPANY WRENTHAM, MASS	
FORM MV-1 FOR SAFETY AND SAFETY RELIEF VALVES As Required by the Provisions of the ASME Code Rules			Q.C.-449
DATA REPORT Safety and Safety Relief Valves			
1. Manufactured By <u>Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02091</u>			
Model No. <u>MB-65-BP-FR</u> Order No. <u>W94275</u> Contract Date <u>4/24/79</u> National Board No. <u>N/A</u>			
2. Manufactured For <u>General Electric Company, 175 Curtner Ave., San Jose, CA 95125</u> Order No. <u>205-A1986</u>			
3. Owner <u>Washington Public Power Supply System, Richland, Washington 99352</u>			
4. Location of Plant <u>Hanford Reservation, Richland, Washington 99352</u>			
5. Valve Identification <u>MPL #B22-P013</u> Serial No. <u>M63790-00-0058</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, Power Actuated			
6. Set Pressure (psig) <u>1195</u> <u>575°</u>			
Rated Temperature			
Stamped Capacity <u>899,185</u> # <u>3</u> Overpressure <u>—</u> Blowdown (psig) <u>2X to 11X</u>			
Hydrostatic Test (psig) Inlet <u>2370</u> Outlet <u>975 psig (Assembled Valve)</u>			
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>W93183-35-0077</u> <u>ASTM A105-71 Gr. II</u>			
Bonnet <u>W93407-35-0040</u> <u>ASTM A105-71 Gr. II</u>			
b. Disc & Disc Insert			
Disc <u>W93185-34-0090</u> <u>ASTM A637 Gr. 7</u>			
Nozzle <u>W93184-33-0062</u> <u>ASTM A182 Gr. F31</u>			
Disc Holder <u>K55484-35-0093</u> <u>*N89714-34-0094</u> <u>AMS 5662B</u>			
Spring Washers <u>K62858-35-0040</u> <u>K62847-35-0061</u> <u>ASTM A105-71 Gr. II</u>			
Adjusting Bolt <u>W93410-33-0065</u> <u>ASTM A193 Gr. B6</u>			
Spindle Point <u>K62873-35-0058</u> <u>*N89720-34-0070</u> <u>ASTM A364-71 Type 630</u>			
c. Spring <u>K62858-35-0040</u> <u>*N89722-0016</u> <u>ASTM A304-66 Gr. 4161H</u>			
d. Bolt			
e. Spindle Ball <u>K62873-35-0058</u> <u>W93213-0058</u> <u>Stellite #6</u>			
Thrust Bearing Adapter <u>W93409-32-0060</u> <u>ASTM A193 Gr. B6</u>			
Bonnet Stud (BW5, 117) <u>W93207-0693 thru 0704</u> <u>ASTM A194-71 Gr. B7</u>			
Bonnet Stud Nut (JB7) <u>W93210-0913 thru 0924</u> <u>ASTM A194 Gr. 2H</u>			
Inlet Stud (BW6) <u>W93216-0695 thru 0706</u> <u>ASTM A194-71 Gr. B7</u>			
Inlet Stud Nut (BW8) <u>W93218-0699 thru 0710</u> <u>ASTM A194-71 Gr. 2H</u>			
Adjusting Bolt Button <u>K53618-33-0067</u> <u>W93411-33-0067</u> <u>ASTM A193 Gr. B6</u>			

FOR INFORMATION ONLY

2X00382751

S/N N 63790-00-005A
Kendrick Eng.
3/1/89

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 & Gate Co. by R. G. Casarone (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 & Gate Company
Stress analysis report (Class 1 only) on file at Crosby Valve & Gate Company
43 Kendrick Street, Wrentham, Massachusetts 02091
Design specifications certified by Royd P. Brooks
PE State California Reg. No. 13655
Stress report certified by W.D. Greenlaw
PE State Massachusetts Reg. No. 14784
Signature not required - list name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 11/25/80 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 11/25/80
Signed John P. Greenlaw (Inspector) Commissions MASS 1266 (Nat'l. Bd., State, Prov. and No.)

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

SEE
MAB

3 4 5 6
7 8 9 10
11

FOR INFORMATION ONLY

ZX00382752



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: 05/22/03

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 29306

(b) Repair Organization P.O. No, Job No, etc.: PO No 313236

(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, 2006 And NR - April 09, 2006

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	N63790-03-0060	N/A	N/A	1980	-----	Yes, Code Class 1
Disc Insert	Crosby	N97499-31-0004	N/A	N/A	N/A	Replaced	No, Code Class 1
Disc Insert	Crosby	N97499-33-0026	N/A	N/A	N/A	Replacement	No, Code Class 1
Nozzle	Crosby	N97498-51-0154	N/A	N/A	N/A	Replaced	No, Code Class 1
Nozzle	Crosby	N97498-53-0167	N/A	N/A	N/A	Replacement	No, Code Class 1

7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-03-0060 was refurbished by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29306. 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 N97499-31-0004 from the relief valve.
- 3) Installed replacement (modified) disc insert Serial No N97499-33-0026 in the relief valve.
- 4) Removed existing nozzle Serial No N97498-51-0154 from the relief valve.
- 5) Installed replacement (modified) nozzle Serial No N97498-53-0167 from 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 1205 PSIG. Test results acceptable.

NOTES-

- 1) Nozzle Serial No N93184-53-0167 was previously modified (upgraded) to Serial No N97498-53-0167 by Energy Northwest in accordance with ASME Section XI Plan No 2-1779.



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

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

Test Pressure: 10 Psig

Test Temperature: 75° 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 N63790-03-0060, 2) See attached NV-1 Code Data Report for Main Steam Relief Valve (MSRV), Serial No N63790-00-0060 (Post Mod Serial No N63790-03-0060), 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

5/22/03

Date

5/22/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-9-03 to 7-1-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

J. M. Foster
Inspector's Signature

Commissions

7486 w / 7486 n E n S
National Board, State, and Endorsements

Date

7-1-03

PLAN No. 2-1853

Repair Supp

5/24/03

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

1. Work performed by: NWS Technologies, LLC Purchase Order # 00313236 Rev. 2
131 Venture Boulevard, Spartanburg, SC 29306
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.

<u>HB-65-BP-FN</u> (type)	new s/n: <u>N63790-03-0060</u> (mfr's S/N)	<u>N/A</u> (NB#)	<u>steam</u> (service)	<u>6 x 10</u> (size)	<u>1980</u> (yr. built)
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d: Construction Code: ASME Sec. III Div. 1 1971 N/A N/A 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, 2006.
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2006.

4/22/03 NWS Technologies, LLC [Signature] Manager, QA
Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Charles F. Toegel Jr. holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of North Carolina and employed by Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 22 APR 2003 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.

4/22/03 [Signature] NB # 8462, A, N, I NC# 1073
Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.)

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

1. Work performed by: **NWS Technologies, LLC** Purchase Order # **00313236 Rev. 2**
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: **N63790-03-0060**

11. Description of work:

NWS Traveler # 03-68

The valve was disassembled. The nozzle and disc were removed for NDE. Both were replaced. The old parts was packaged for return to site.

New disc: N97499-33-0026 was installed.

New nozzle: N97498-53-0167

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: N/A

During the initial repair, accelerometer mounts were installed on the spindle and spring as directed by CGS engineering. The valve was tested to ensure mount integrity. During the jack and lap, accelerometers were installed on the mounts.

After reassembly, the valve set-pressure was certified using steam as the lift medium.

The valve was then jacked and lapped to restore seat integrity.

A final steam seat tightness test was then done at 93% of set-pressure.

4/22/03
Date

NWS Technologies, LLC
(repair organization)


(authorized representative)

Manager, QA
(title)

4/22/03
Date


Inspector's Signature

NB# 8462, A,N,I NC# 1073
Commissions (NB (incl endorsements), jurisdiction, & no.)



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS *Ready Ship*
5/22/03

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

- 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.,
- Manufactured For San Jose, CA 95125 Order No. 205-AJ986
Name and Address
- Owner Washington Public Power Supply System, Richland, Washington 99352
Name and Address
- Location of Plant Hanford Reservation, Richland, Washington 99352
- Valve Identification MPL #B22-F013 Serial No. N63790-00-0060 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
- Set Pressure (psig) 1205 5750 F
Rated Temperature
- Stamped Capacity 906,621 @ 3 Z 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>N93183-35-0079</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-35-0042</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. Supporting Disc Insert		
Supporting Disc Insert	<u>N93185-34-0092</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-33-0064</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder K55484-45-0185	<u>N89714-37-0224</u>	<u>AMS 5662B</u>
Spring Washers K62858-35-0042	<u>K62856-35-0098</u> <u>K62857-35-0063</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0067</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point K62873-35-0060	<u>*N89720-34-0071</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
c. Spring K62858-35-0042	<u>*N89722-0018</u>	<u>ASTM A304-66 Gr. 4161H</u>
d. Bolting		
Spindle Ball	<u>N93213-0060</u>	<u>7X00380153</u> <u>Stellite #6</u>
e. Thrust Bearing Adapter	<u>N93409-32-0062</u>	<u>ASME SA193 Gr. B6</u>
Bonnet Stud	<u>(BW5) N93207-0717 thru 0728</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut	<u>(J87) N93210-0937 thru 0948</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud	<u>(BW6) N93216-0721 thru 0730,</u> <u>(BW18) 1709 & 1710</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Inlet Stud Nut	<u>(BW8) N93218-0723 thru 0734</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>

~~modification consists of~~ 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.

NI 3790-00-0060

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. Cavanaugh
(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 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 19 80

Signed [Signature] Commissions MASS. 1266
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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

ZX00380154



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: 05/22/03

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: NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29306

(b) Repair Organization P.O. No, Job No, etc.: PO No 313236

(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, 2006 And NR - April 09, 2006

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	N63790-03-0122	N/A	N/A	1981	-----	Yes, Code Class 1

7. Description Of Work Performed: Spare Main Steam Relief Valve (MSRV), Serial No N63790-03-0122 was refurbished by NWS Technologies, LLC, 131 Venture Boulevard, Spartanburg, SC 29306. 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) 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 replaced.
- 3) 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.
- 4) 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.
- 5) Reassembled the relief valve.
- 6) Installed three (3) replacement studs for the relief valve inlet joint.
- 7) 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.
- 8) Tested the relief valve at set pressure of 1175 PSIG. Test results acceptable.

NOTES-

- 1) Energy Northwest performed VT-1 visual examination on three (3) replacement studs for the relief valve inlet joint. VT-1 visual examination results acceptable.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☒ Nominal Operating Pressure ☐ None ☐
 Test Pressure: 10 Psig Test Temperature: 75° 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 N63790-03-0122, 2) See attached NV-1 Code Data Report for Main Steam Relief Valve (MSRV), Serial No N63790-00-0122 (Post Mod Serial No N63790-03-0122), 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 5/22/03 Date 5/22/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-9-03 to 7-1-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions 74866/7486 N.I. N.S.
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

PLAN No. 2-1854

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

1. Work performed by: NWS Technologies, LLC Purchase Order # 00313236 Rev. 2 ^{5/22/03}
131 Venture Boulevard, Spartanburg, SC 29306
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 new s/n: N63790-03-0122 N/A steam 6 x 10 1981
(type) (mfr's S/N) (NB#) (service) (size) (yr. built)
d: Construction Code: ASME Sec. III Div. 1 1971 N/A N/A 1
(name/section/division) (edition) (addenda) (Code Cases(s)) (Code Class)
6. ASME Code Section XI applicable for inservice inspection: 1989 N/A N/A
(edition) (addenda) (Code Case(s))
7. ASME Code Section XI used for repairs, replacements: 1989 N/A N/A
(edition) (addenda) (Code Case(s))
8. Construction Code used for repairs, replacements: 1971 N/A N/A
(edition) (addenda) (Code Case(s))
9. Design responsibilities: N/A
10. Opening pressure: 1175 psig
Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): See attachment 1.
12. Remarks: See attachment 1.

CERTIFICATE OF COMPLIANCE

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

National Board Certificate of Authorization No. 632 to use the "VR" stamp expires April 3, 2006.
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2006.

4/22/03 NWS Technologies, LLC Cesar V. Sierra Manager, QA
Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Charles F. Toegel Jr. holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of North Carolina and employed by Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 22 APR 2003 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.

4/22/03 Charles F. Toegel Jr. NB # 8462, A, N, I NC# 1073
Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.).

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

1. Work performed by: NWS Technologies, LLC Purchase Order # 00313236 Rev. 2
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: N63790-03-8868

01.22 @ 5/14/03
CRQ-ANZ 5/14/03

11. Description of work:

NWS Traveler # 03-69

The valve was disassembled. The nozzle and disc were removed for NDE.
Both disc and nozzle were polished by NWS prior to installation.

Parts replaced during the repair include:

Disc Holder Spiral Pins (2): MC 54407794

Eductor Gasket: MC 56230461

Inlet Studs (3): SLR

After reassembly, the valve set-pressure was certified using steam as the lift medium.

The valve was then jacked and lapped to restore seat integrity.

A final steam seat tightness test was then done at 93% of set-pressure.

4/22/03
Date

NWS Technologies, LLC
(repair organization)

Victor Stumpf
(authorized representative)

Manager, QA
(title)

4/22/03
Date

Thomas F. Stumpf Jr.
Inspector's Signature

NB# 8462, A,N,I NC# 1073

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

CROSBY**CROSBY VALVE & GAGE COMPANY**

WRENTHAM, MASS

Ready Supb
5/22/03FORM 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

- 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.,
- Manufactured For San Jose, CA 95125 Order No. 205-AJ986
Name and Address
- Owner Washington Public Power Supply System, Richland Washington 99352
Name and Address
- Location of Plant Hanford Reservation, Richland, Washington 99352
- Valve Identification MPL #B22-F013 Serial No. N63790-00-0122 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
- Set Pressure (psig) 1175 575° F
Rated Temperature
- Stamped Capacity 884,314 @ 3 X Overpressure -- Blowdown (psig) 2% to 11%
- Hydrostatic Test (psig) Inlet 2370 Outlet 975 psig (Assembled Valve)
1100 psig (Body Only)
(Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. Crossings Bar Stock & Forgings		
Body	<u>N93183-36-0085</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-36-0097</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. XXXXXXXXXXXXXXX XXXXXXXXXXXXXXX Disc Insert	<u>N93185-37-0153</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-33-0070</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder K55484-31-0016	<u>N89714-31-0014</u>	<u>AMS 5662B</u>
Spring Washers K62858-36-0080	<u>K62856-36-0107</u> <u>K62857-36-0121</u>	<u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0071</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point K62873-37-0135	<u>N89720-43-0145</u>	<u>ASME SA564 Type 630</u>
c. Spring K62858-36-0080	<u>*N89722-0085</u>	<u>ASTM A304-66 Gr. 4161H</u>
d. Bolting Spindle Ball		
e. XXXXXXXXXXXXXXX K62873-37-0135	<u>N93213-0202</u>	<u>Stoody #6</u>
Thrust Bearing Adapter	<u>N93409-32-0068</u>	<u>ASME SA193 Gr. B6</u>
Bonnet Stud (BW19)	<u>N93207-1498 thru 1509</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut (J87)	<u>N93210-1009 thru 1020</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud (BW21)	<u>N93216-1431 thru 1442</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u> <u>ASTM A194-71 Gr. 2H</u>
Inlet Stud Nut (BW22)	<u>N93218-1365 thru 1376</u>	<u>ASME SA194 Gr. 2H</u>
Adjusting Bolt Button	<u>N93411-33-0075</u>	<u>ASME SA193 Gr. B6</u>
K63618-33-0075		

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.

N63790-00-0122

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 JJ Keene
(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 1/9, 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 19 81
Signed John D. Morris Commissions 1/9/81
(Inspector) (Nat'l. Bd., State, Prov. and No.)

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



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

1. Owner: Energy Northwest

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

Date: 06/06/03

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) Tubing

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-IR-83-1 Valve Valve	JCI Dragon Dragon	PI(1)-ST-IR-83-1 GP1391 PB1196	N/A N/A N/A	N/A N/A N/A	1983 1981 1993	----- Replaced Replacement	Yes, Code Class 2 Yes, Code Class 2 Yes, Code Class 2

7. Description Of Work Performed: Replaced existing valve IR-V-IR-83/V1* associated with instrument MS-PS-15C. The replacement work was performed as follows:

- 1) Removed existing valve IR-V-IR-83/V1*, Serial No GP1391.
- 2) Installed new replacement valve IR-V-IR-83/V1*, Serial No PB1196.
- 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) The existing ASME Code Stamped Process Instrumentation (PI) Tubing in which the new replacement valve IR-V-IR-83/V1*, Serial No PB1196 was installed is PI(1)-ST-IR-83-1. This process instrumentation tubing is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Winter 1975 Addenda requirements.
- 2) The new replacement valve IR-V-IR-83/V1*, Serial No PB1196 is certified to comply with ASME Section III, Code Class 2, 1974 Edition with Summer 1975 Addenda requirements.
- 3) * This valve has two (2) EPN's. Valve EPN No IR-V-IR-83/V1* appears on PASSPORT and valve EPN No IR-83-V-1C appears on Dwg No D-220-15.0-PED-I-0563, CVI No 220-01,1248.



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 NPV-1 Code Data Report for the replacement valve IR-V-IR-83/V1*, Serial No PB1196.

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 6/6/03 Date 6/6/03

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 2-1855

1. Manufactured by Dragon Valves, Inc., 13457 Excelsior Dr., Norwalk, CA. 90650 *Build up by 6/6/03*
(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 Outlet Size 1/2
(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. 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)							

SIN PB1196

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

025636000885

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. 1, Edition 1974.
Addenda S 75, Code Case No. N/A, Date August 23, 1993.
Signed DRAGON VALVES INC. by R. L. Briggs
(In Certificate Holder)
Our ASME Certificate of Authorization No. N 1033 to use the N symbol expires 10/1/93.
(N) (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 RA. 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 NCertificate 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
[Signature]
(Inspector) Commissions CA 1716
(Nat'l Bd. State. Prov. and Nat'l)



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

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

Date: 06/20/03
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS(9)-4 MS-V-67A MS-V-67A	WPPSS * Borg Warner Borg Warner	MS(9)-4-P1 28467 28472	N/A N/A N/A	N/A N/A N/A	1983 1978 1978	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Removal and installed valve (MSLC-V-2D) Serial No 28472 for MS-V-67A use. The replacement work to replace existing valve MS-V-67A was performed as follows:

- 1) Cut or ground existing socket welds associated with existing valve MS-V-67A, Serial No 28467.
- 2) Removed existing valve MS-V-67A, Serial No 28467.
- 3) Prepped existing tee cut socket end surfaces (one socket end) on as needed basis for rewelding.
- 4) Performed liquid penetrant (PT) examination on the tee prepped socket end. Liquid penetrant (PT) examination results acceptable.
- 5) Removed existing valve MSLC-V-2D, Serial No 28472 for MS-V-67A use.
- 6) Prepped valve MSLC-V-2D, Serial No 28472 cut socket end surfaces (two socket ends) on as needed basis for rewelding.
- 7) Performed liquid penetrant (PT) examination on the valve prepped socket ends. Liquid penetrant (PT) examination results acceptable.
- 8) Installed replacement pipe.
- 9) Installed valve MS-V-67A Serial No 28472.
- 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.
- 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.

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 MS-V-67A Serial No 28472 was installed is Main Steam (MS) piping system MS(9)-4-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.
- 3) The replacement valve MS-V-67A Serial No 28472 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Summer 1975 Addenda requirements.
- 4) The liquid penetrant (PT) examination on the final socket welds was performed in accordance with the requirements of ASME Section III, Code Class 1, 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.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached NPV-1 Code Data Report for the replacement valve MS-V-67A Serial No 28472, 2) * The test pressure and the test temperature on the socket welds 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 6/30/03

Date 6/30/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-16-03 to 6-30-03 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. F. [Signature]
 Inspector's Signature

Commissions 7486-61/7486-12 I N.S.
 National Board, State, and Endorsements

Date 6-30-03

INFORMATION ONLY

PLAN No. 2-1857

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

As Required by the Provisions of the ASME Code Rules

Quadruplets
6/20/03

Nuclear Valve Division

1. Manufactured by of Borg Warner, 7500 Tyrone Ave., Van Nuys, Ca. Order No. 47713
(Name & Address of Manufacturer)
Bovee & Crail/G.E.R.I.
P.O. Box 1040, Richland, Washington 99352
2. Manufactured for _____ Order No. 215-32610
(Name and Address)
3. Owner WPPSS Hanford #2 Job Site VALVE MS-V-67A, S/N 284782
4. Location of Plant Richland, Washington 99352
5. Pump or Valve Identification Nuclear Valve Div. P/N 76890-1, 1 1/2 Inch Gate Valve, MO, CS.
1500#
Serial Numbers 28461 thru 28472 (12 Valves)
(Brief description of service for which equipment was designed)

(a) Drawing No. 76890-1 Prepared by Nuclear Valve Division of Borg Warner

(b) National Board No. **N/A**

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

00187

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

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

[illegible]

5282A

*Supplemental notes 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, 3, 5, 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.

WBGER

2

FORM NPV-1 (back)

B. Hydrostatic test 5400 psi.

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

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

Date March 30 19 78 Signed Nuclear Valve Division
of Borg Warner By [Signature]
(Manufacturer)

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

1, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Province of California and employed by Lumbermen's Mutual Casualty of Long Grove, Illinois have inspected the equipment described in this Data Report on March 30 1978, and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Code, Section III.

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

Date March 19 79

(Inspector)
Manuel B. Diana

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

WGBR

Printed in U.S.A. (8/72)

This form (Z37) is obtainable from the ASME, 345 E. 47th St., New York, N.Y. 10017.



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:** 06/30/03
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352 **Sheet:** 1 Of 1
2. **Plant:** Columbia Generating Station **Unit:** Not Applicable
Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352
3. **(a) Work Performed By:** Energy Northwest
(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest
(c) Type Code Symbol Stamp: Not Applicable
(d) Certificate Of Authorization No.: Not Applicable
(e) Expiration Date: Not Applicable
4. **Identification Of System:** Main Steam Leakage Control (MSLC) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1&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)-4D	WPPSS *	MS(1)-4D-P2	N/A	N/A	1983	-----	Yes, Code Class 1
MSLC(2)-1	WPPSS *	MSLC(2)-1-P1	N/A	N/A	1983	-----	Yes, Code Class 2
MSLC-V-2D	Borg Warner	28472	N/A	N/A	1978	Replaced	Yes, Code Class 1
MSLC-V-2D	Borg Warner	28467	N/A	N/A	1978	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Removal and installed valve (MS-V-67A) Serial No 28467 for MSLC-V-2D use. The replacement work to replace existing valve MSLC-V-2D was performed as follows:

- 1) Cut or ground existing socket welds associated with existing valve MSLC-V-2D, Serial No 28472.
- 2) Removed existing valve MSLC-V-2D, Serial No 28472.
- 3) Prepped existing pipe cut end surfaces (one end) on as needed basis for rewelding.
- 4) Performed liquid penetrant (PT) examination on the pipe prepped end. Liquid penetrant (PT) examination results acceptable.
- 5) Removed existing valve MS-V-67A, Serial No 28467 for MSLC-V-2D use.
- 6) Prepped valve MS-V-67A, Serial No 28467 cut socket end surfaces (two socket ends) on as needed basis for rewelding.
- 7) Performed liquid penetrant (PT) examination on the valve prepped socket ends. Liquid penetrant (PT) examination results acceptable.
- 8) Installed replacement piping material such as pipe and coupling.
- 9) Installed valve MSLC-V-2D Serial No 28467.
- 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.
- 13) Installed support material such as U bolt and jam nuts.
- 14) 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 MSLC-V-2D Serial No 28467 was installed is Main Steam (MS) piping system MS(1)-4D-P2. 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 in which the replacement valve MSLC-V-2D Serial No 28467 was installed is Main Steam Leakage Control (MSLC) piping system MSLC(2)-1-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 valve MSLC-V-2D Serial No 28467 is certified to comply with ASME Section III, Code Class 1, 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 1, 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.



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

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

Test Pressure: 35/1000 Psig

Test Temperature: 81/82° F

Component Design Pressure: 50/1250 Psig

Temperature: 575/575° F

9. **Remarks:** 1) See attached NPV-1 Code Data Report for the replacement valve MSLC-V-2D Serial No 28467, 2) * Valve MSLC-V-2D Low Pressure Side - The test pressure of 35 Psig and the test temperature of 81 on the socket welds was recorded during ASME Section XI pressure test which was performed utilizing local pressurization, 3) * Valve MSLC-V-2D High Pressure Side - The test pressure of 1000 Psig and the test temperature of 82 on the socket weld was recorded during ASME Section XI pressure test which was performed utilizing local pressurization.

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

6/30/03

Date

6/30/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-17-03 to 7-1-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

A.M. [Signature]
Inspector's Signature

Commissions

74864/7486 n I-1
National Board, State, and Endorsements

Date

7-1-03

PLAN No. 2-1858

As Required by the Provisions of the ASME Code Rules

1. Manufactured by of Borg Warner, 3500 Tyrone Ave., Van Nuys, Ca. Order No. 47713
(Name & Address of Manufacturer)
Bovee & Crail/G.E.R.I.
P.O. Box 1040, Richland, Washington 99352

2. Manufactured for P.O. Box 1040, Richland, Washington 99352 Order No. 215-32610
(Name and Address)

3. Owner WPPSS Hanford #2 Job Site MSLC-V-2D, S/N 28467

4. Location of Plant Richland, Washington 99352 Fielding Supt
6/26/03

5. Pump or Valve Identification Nuclear Valve Div. P/N 76890-1, 1 1/2 Inch Gate Valve, MD, CS.
1500F

Serial Numbers 28461 thru 28472 (12 Valves)
(Brief description of service for which equipment was designed)

(a) Drawing No. 76890-1 Prepared by Nuclear Valve Division of Borg Warner

(b) National Board No. S/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 1

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

[illegible]

*Supplemental notes in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information is clear, (3) 1, 2, 3 on 34 on this data report is included on each sheet, and (4) each sheet is numbered and number of sheets is recorded at top of this form.

WBG516

FORM NPA-1 (back)

8. Hydrostatic test 5400 psi.

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

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

Nuclear Valve Division
of Borg Warner

Date March 30 19 78 Signed _____
(Manufacturer)

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

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Province of California and employed by Lumbermen's Mutual Casualty of Long Grove, Illinois have inspected the equipment described in this Data Report on March 30 1978, and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Code, Section III.

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

Date March 19 78

~~SECRET~~

(Inspector)
Manuel B. Diana

Commission

CA-1273

(National Board, State, Province and N.:

WGBR

215-6282A



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: 05/31/03

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: Residual Heat Removal (RHR) 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
RHR-RV-88C Spare Valve (RHR-RV-97)	Loneran Loneran	509258-81-1 509258-89-1	N/A N/A	N/A N/A	1978 1979	----- -----	Yes, Code Class 2 Yes, Code Class 2

7. Description Of Work Performed: Replaced base for relief valve RHR-RV-88C, S/N 509258-81-1. The replacement work was performed as follows:

- 1) Removed the existing base from relief valve RHR-RV-88C, S/N 509258-81-1.
- 2) Removed the existing base from spare relief valve (RHR-RV-97), S/N 509258-89-1.
- 3) Installed base removed from spare relief valve (RHR-RV-97), S/N 509258-89-1 in relief valve RHR-RV-88C, S/N 509258-81-1



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 NV-1 Code Data Report for the spare relief valve (RHR-RV-97), S/N 509258-89-1.

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 5/31/03 Date 5/31/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-18-03 to 7-1-03 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 7186.4/7186 N I NS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

FORM NO. 1 FOR SAFETY AND SAFETY RELIEF VALVES*

As required by the Provisions of the ASME Code Rules

* Correction

9/15/79
11-20-84 9-25-79

1. Manufactured by J. M. Donergo Company, 2nd Lion Rd., W. of Vorce, Philadelphia, Pa. 19115
Name and Address

PLAN No. 2-1859

Model No. LCT-11 Order No. 509258 Contract Date 8/5/75 National Board No. 515103

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

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

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

5. Valve Identification RHR-RV-97 Serial No. 509258-89-1 Drawing No. A-2375, Rev. C

Type Safety Relief Valve Orifice Size 0.06 Pipe Size N/A Inlet 3/4" Outlet 1"
Safety; Safety Relief; Pilot; Power Actuated Sq. Inch Inch Inch

6. Set Pressure (PSIG) 150 400 of
Rated Temperature

Stamped Capacity 12 G.P.M. 10 % Overpressure Blowdown (PSIG) 10

Hydrostatic Test (PSIG) Inlet 225 Outlet 425
Test Valve

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

Class 2, Edition 1974, Addenda Winter Addenda Date 12/31/74, Case No. 1555

Pressure Containing or Pressure Retaining Components

SPECIFICATION NO. 2808-215
SECTION NO. 159
PARAGRAPH NO. 37.3.4

a. Castings

Serial No. or Identification

Material Specification Including Type or Grade

Body

Donnet 215-15190

54428-1

ASME SA-216/WCB

MAR 31 1982

WBGBR 215 98 31

b. Bar Stock and Forgings

BECHTEL QUALITY CONTROL

Support Rods

BY: JK

NOXON Base

01954

ASME SA-479 Type 304

Disc

01629

ASME SA-479 Type 304

Spring Washers

C17825

ASME SA-479 Type 304

Adjusting Screw

G1025

ASME SA-479 Type 304

Spindle

91602

ASME SA-479 Type 410

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

TAG# 43696

2

2 1 2 7 9 0 9 0 6

Serial No. or
Identification Part No.

Material Specification
Including Type or Grade

c. Spring

B5973

ASTM A-229

d. Bolting

e. Other Parts such as Pilot Components

Cap

02042

ASME SA-479 Type 304

Inlet Flange

AON

ASME SA-105*

9/25/79

REVIEWED

MAR 31 1982

BECHTEL QUALITY CONTROL

BY: *gk*

** Blowdown not specified by code.

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

Date 9/25 1979 Signed J. E. LONERGAN COMPANY by *J. E. Loneragan*

Manufacturer

9/25/79
F. A. HICKEY

Certificate of Authorization No.

N-2359

expires

9/25/79
Sept. 10, 1980

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. & L. Co. of Hartford, Connecticut have inspected the equipment described in this Data Report on 9-25 1979 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

Date 9-25 1979

WBG BR 215-16354A

Fred J. Boby
(Inspector)

Commission

148 8571

(National Board, State, Province and No.)



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

1. Owner: Energy Northwest

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

Date: 07/15/03

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 1, 1974 Edition with Summer 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
RHR-V-84B	Borg Warner	28828	N/A	N/A	1978	Repaired	Yes, Code Class 1

7. Description Of Work Performed: Repaired valve RHR-V-84B. The repair work was performed as follows:

- 1) Cut valve body to bonnet seal weld.
- 2) Removed existing disc from the valve.
- 3) Machined the disc seating surfaces.
- 4) Performed liquid penetrant (PT) examination on the machined disc seating surfaces. Liquid penetrant (PT) examination results acceptable.
- 5) Reinstalled the existing disc in the valve.
- 6) Prepped body and bonnet cut surfaces.
- 7) Performed liquid penetrant (PT) examination on the valve body and bonnet prepped surfaces. Liquid penetrant (PT) examination results acceptable.
- 8) Reinstalled the valve bonnet.
- 9) Made valve body to bonnet seal weld.
- 10) Performed visual examination on the final seal weld. Visual examination results acceptable.
- 11) Performed liquid penetrant (PT) examination on the final seal weld. Liquid penetrant (PT) examination results acceptable.
- 12) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 120 Psig Test Temperature: 92.6° F
 Component Design Pressure: 3600 Psig Temperature: 100° 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 7/15/03 Date 7/15/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 06/17/03 to 07/16/03 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.

John J. D'Amico Commissions 8032 IV-ACIN
 Inspector's Signature National Board, State, and Endorsements

Date 07/16/03



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: 06/04/03

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: Low Pressure Core Spray (LPCS) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
LPCS-V-34 Disc Disc	Borg Warner Borg Warner Borg Warner	17867 N/A N/A	N/A N/A N/A	N/A N/A N/A	1976 N/A N/A	----- Replaced Replacement	Yes, Code Class 1 No, Code Class 1 No, Code Class 1

7. Description Of Work Performed: Replaced existing disc and made body to bonnet seal weld for valve LPCS-V-34. The work was performed as follows:

- 1) Cut valve body to bonnet seal weld.
- 2) Removed existing disc from the valve.
- 3) Installed new replacement disc in the valve.
- 4) Prepped body and bonnet cut surfaces.
- 5) Performed liquid penetrant (PT) examination on the valve body and bonnet prepped surfaces. Liquid penetrant (PT) examination results acceptable.
- 6) Reinstalled the valve bonnet.
- 7) Made valve body to bonnet seal weld.
- 8) Performed visual examination on the final seal weld. Visual examination results acceptable.
- 9) Performed liquid penetrant (PT) examination on the final seal weld. Liquid penetrant (PT) examination results acceptable.


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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 325 Psig Test Temperature: 68° F
 Component Design Pressure: 3600 Psig Temperature: 100° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/4/03 Date 6/4/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-9-03 to 7-1-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

A. M. Foster Commissions 7186-W/7486 N.I. 10-5
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03



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: 06/06/03

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: 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(21)-2	BF Shaw	SW(21)-2-10	N/A	N/A	1979	Replacement	Yes, Code Class 3

7. Description Of Work Performed: Replaced studs and nuts for pipe to valve SW-V-165A bolted flanged joints. The replacement work was performed as follows:

Studs For The Bolted Flanged Joints

- 1) Removed existing forty eight (48) studs.
- 2) Performed VT-3 visual examination on the existing twenty seven (27) studs. VT-3 visual examination results acceptable.
- 3) Reinstalled twenty seven (27) VT-3 visually examined studs.
- 4) Scrapped twenty one (21) out of the forty eight (48) studs.
- 5) Installed twenty one (21) new studs.

Nuts For The Bolted Flanged Joints

- 1) Removed existing forty eight (48) nuts.
- 2) Performed VT-3 visual examination on the existing twenty three (23) nuts. VT-3 visual examination results acceptable.
- 3) Reinstalled twenty three (23) VT-3 visually examined nuts.
- 4) Installed one (1) new nut.
- 5) Reinstalled twenty four (24) nuts without performing the required VT-3 visual examination.

Pressure Test

- 1) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joints. No evidence of leakage during the pressure test.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 215 Psig Test Temperature: 65° F
 Component Design Pressure: 300 Psig Temperature: 150° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 6/7/03 Date 6/7/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-26-03 to 6-30-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions 74866 / 7486 N.I.N.S.
 Inspector's Signature National Board, State, and Endorsements

Date 6-30-03



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: 06/04/03

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: Low Pressure Core Spray (LPCS) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
LPCS-V-34 Bonnet Bonnet	Borg Warner Borg Warner Borg Warner	17867 N/A 301500	N/A N/A N/A	N/A N/A N/A	1976 N/A 1993	----- Replaced Replacement	Yes, Code Class 1 No, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Replaced existing bonnet for valve LPCS-V-34. The replacement work was performed as follows:

- 1) Removed existing bonnet from valve LPCS-V-34.
- 2) Installed replacement bonnet Serial No 301500 in valve LPCS-V-34.

NOTES -

- 1) See ASME Section XI Plan No 2-1864 for body to bonnet seal weld for valve LPCS-V-34, Serial No 17867.
- 2) See ASME Section XI Plan No 2-1864 for pressure test on body to bonnet joint for valve LPCS-V-34, Serial No 17867.



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

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

9. Remarks: 1) See attached N-2 Code Data Report for the replacement bonnet Serial No 301500. 2) * See ASME Section XI Plan No 2-1864 for pressure test on body to bonnet joint for valve LPCS-V-34, Serial No 17867.

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 6/4/03 Date 6/4/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-27-03 to 7-1-03 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. F. [Signature] Commissions 7486.16/7486 N E N S
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

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

PLAN No. 2-1866

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

Pg. 1 of 2

1. Manufactured and certified by BN/TP INTERNATIONAL INC. PUMP DIV. LOS ANGELES OPERATIONS 2209 E. VERNON AVE. VERNON, CA 90005
(Name and address of NPT Certificate Holder)
2. Manufactured for WASHINGTON PUBLIC POWER SUPPLY SYSTEM, NORTH POWER PLANT, RICHMOND, WA 98153
(Name and address of Purchaser)
3. Location of Installation WASHINGTON PUBLIC POWER SUPPLY SYSTEM, NORTH POWER PLANT, RICHMOND, WA 98153
(Name and address)
4. Type: 71278 REV. II **SA105 70,000 PSI N/A 1993
(Drawing no.) (Mat'l. spec. no.) (Design strength) (Code) (Year built)
5. ASME Code, Section III, Division 1: 1971 WINTER 1973 I 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
(Div.)
7. Remarks: BN/TP JOB NO. 93153474 PART NAME -- BOMEX LPCS-V-34

HYDROSTATIC TESTING NOT PERFORMED. NAMEPLATE ATTACHED BY WIRE.

Rel'd Sp. 5
6/3/03

PRESSURE CLASS: 1500

**MATERIAL MEETS SECTION II: 6 III 1966 EDITION, WINTER 1968 ADDENDA

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) <u>3015W</u>	<u>N/A</u>
(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 3600 psi. Temp. 100 °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.

(12/83)

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

FORM 14-2 (Book -- Pg. 2 of 2)

Certificate Holder's Serial Nos. 801800 through N/A

CERTIFICATION OF DESIGN

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

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this DESIGN conforms to the rules of construction of the ASME Code, Section III, Division 1. BOBNET
*EXPIRATION DATE: JULY 23, 1993
NPT Certificate of Authorization No. N-1131 Expires SEP 10, 1993
Date 6-21-93 Name BN/IP INTERNATIONAL, INC. Signed [Signature]
(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 CALIFORNIA and employed by ARONHEIM MUTUAL INS. CO. FACTORY MUTUAL INSURANCE ASSOCIATION of ROXBORO, MASS. have inspected these items described in this Data Report on JUNE 22, 1993 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 data 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 6/22/93 Signed [Signature] Commissions 1275 CB
(Authorized Inspector) (Nat'l. Bd. Incl. endorsements and state or prov. and no.)



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

1. Owner: Energy Northwest

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

Date: 06/04/03

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: Service Water (SW) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

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

7. Description Of Work Performed: Replaced existing support material The replacement work was performed as follows:

- 1) Removed existing support material such as U bolts, nuts and jam nuts (1/2 nuts).
- 2) Formed one (1) 1" U bolt to meet the dimensional requirements.
- 3) Cut additional threads on the legs for 1" U bolts.
- 4) Performed visual examination on the newly cut threads.
- 5) Installed replacement support material such as U bolts with four (4) nuts for each U bolt and jam nuts (1/2 nuts).

NOTES -

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) ** ASME Section III, Code Class NF(3) for the supports.
- 3) The support material such as U bolts with four (4) nuts for each U bolt and jam nuts (1/2 nuts) was replaced for the following supports:
 SW-1529-13 SW-1529-21B
 SW-1529-21 SW-1529-22
 SW-1529-21A SW-1529-11
- 4) The above listed supports are for the piping material replaced in accordance with ASME Section XI Plan No 2-1803.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/4/03 Date 6/4/03

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 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: 06/25/03

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: Containment Instrument Air (CIA) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CIA(5)-2B	WPPSS *	CIA(5)-2B-P1	N/A	N/A	1983	-----	Yes, Code Class 2

7. Description Of Work Performed: Replaced U bolt for support CIA-4132-14. The replacement work was performed as follows:

- 1) Removed existing U bolt from the support.
- 2) Installed replacement U bolt for the support.
- 3) Installed replacement jam nuts for the support.

Replaced jam nuts for support CIA-4133-13. The replacement work was performed as follows:

- 1) Installed replacement jam nuts for the support.

NOTES -

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) ASME Section III, Code Class NF(2) for the support material.


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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/25/03 Date 6/25/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-29-03 to 6-30-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions 74866/7486 N.E. NS
 Inspector's Signature National Board, State, and Endorsements

Date 6/30/03



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: 06/06/03

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: Service Water (SW) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

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

7. Description Of Work Performed: Replaced existing support material The replacement work was performed as follows:

- 1) Removed existing support material such as U bolts, nuts and jam nuts (1/2 nuts).
- 2) Cut additional threads on the legs for 1" U bolts.
- 3) Performed visual examination on the newly cut threads.
- 4) Installed replacement support material such as U bolts with four (4) nuts for each U bolt and jam nuts (1/2 nuts).

NOTES -

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) ** ASME Section III, Code Class NF(3) for the supports.
- 3) The support material such as U bolts with four (4) nuts for each U bolt and jam nuts (1/2 nuts) was replaced for the following supports:
SW-1525-16
SW-1523-24


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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/6/03 Date 6/6/03

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 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**

Date: 07/17/03
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(13)-4CL2	WPPSS *	RCIC(13)-4CL2-P1	N/A	N/AA	1983	-----	Yes, Code Class 2**

7. Description Of Work Performed: Replaced existing support material The replacement work was performed as follows:

- 1) Removed existing support material such as U bolts, nuts and jam nuts (1/2 nuts).
- 2) Formed two (2) 1" U bolts to meet the dimensional requirements.
- 3) Cut additional threads on the legs for 1" U bolts.
- 4) Performed visual examination on the newly cut threads.
- 5) Installed replacement support material such as U bolts with four (4) nuts for each U bolt and jam nuts (1/2 nuts).

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) ** ASME Section III, Code Class NF(2) for the supports.
- 3) The support material such as U bolts with four (4) nuts for each U bolt and jam nuts (1/2 nuts) was replaced for the following supports:
RCIC1484-12A RCIC-1484-14
- 4) The above listed supports are for the piping material replaced in accordance with ASME Section XI Plan No 2-1801.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 7/17/03 Date 7/17/03

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

1. Owner: Energy Northwest

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

Date: 06/21/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Reactor Core Isolation Cooling (RCIC) 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
RCIC(12)-4-CL2	WPPSS *	RCIC(12)-4-CL2-P1	N/A	N/A	1983	-----	Yes, Code Class 1

7. Description Of Work Performed: Replaced existing hanger rods for support RCIC-976S. The replacement work was performed as follows:

- 1) Removed existing hanger rods.
- 2) Removed existing nuts associated with the hanger rods.
- 3) Cut bar to the required lengths.
- 4) Cut threads for the rod.
- 5) Bevel threaded rod ends.
- 6) Perform visual examination on the newly cut threads. Visual examination results acceptable.
- 7) Install hanger rods.
- 8) Install nuts associated with the hanger rods.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) ASME Section III, Code Class NF(1) for the rods.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/21/03 Date 6/21/03

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 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 1, 1974 Edition with Summer 1975 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 06/20/03
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RCIC-V-73	Borg Warner	28749	N/A	N/A	1978	Repaired	Yes, Code Class 1

7. **Description Of Work Performed:** Repaired valve RCIC-V-73. The repair work was performed as follows:
- 1) Removed the disc from the valve.
 - 2) Machined the disc seat surfaces.
 - 3) Performed liquid penetrant (PT) examination on the valve disc machined surfaces. Liquid penetrant (PT) examination results acceptable.
 - 4) Reinstalled the valve parts.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/20/03 Date 6/20/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 6-11-03 to 6-30-03 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 Commissions 74060/7416 N.I.N.S.
 Inspector's Signature National Board, State, and Endorsements

Date 6-30-03



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 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
RHR-V-85B Disc Disc	Borg Warner Borg Warner Borg Warner	20217 N/A N/A	N/A N/A N/A	N/A N/A N/A	1977 N/A N/A	----- Replaced Replacement	Yes, Code Class 1 No, Code Class 1 No, Code Class 1

7. **Description Of Work Performed:** Repaired valve RHR-V-85B. The repair work was performed as follows:
- 1) Cut valve body to bonnet seal weld.
 - 2) Removed existing disc from the valve.
 - 3) Installed replacement disc in the valve.
 - 4) Prepped body and bonnet cut surfaces.
 - 5) Performed liquid penetrant (PT) examination on the valve body and bonnet prepped surfaces. Liquid penetrant (PT) examination results acceptable.
 - 6) Reinstalled the valve bonnet.
 - 7) Made valve body to bonnet seal weld.
 - 8) Performed visual examination on the final seal weld. Visual examination results acceptable.
 - 9) Performed liquid penetrant (PT) examination on the final seal weld. Liquid penetrant (PT) examination results acceptable.
 - 10) Performed VT-2 visual examination during pressure test to confirm pressure boundary integrity of the joint. No evidence of leakage during the pressure test.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Other ☐
 Test Pressure: 120 Psig Test Temperature: 92.6° F
 Component Design Pressure: 3600 Psig Temperature: 100° 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 7/15/03 Date 7/15/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 06/12/03 to 07/16/03 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.

John D. Miley Commissions 8032 N ACIN
 Inspector's Signature National Board, State, and Endorsements

Date 07/16/03



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: 06/30/03

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS-V-22A	Rockwell	JV-2	81	N/A	1973	-----	Yes, Code Class 1

7. Description Of Work Performed: Performed the following ASME related work:

- 1) Performed VT-1 visual examinations on the replacement studs for the valve body to bonnet joint. VT-1 visual examination results acceptable.
- 2) Performed VT-1 visual examinations on the replacement nuts for the valve body to bonnet joint. VT-1 visual examination results acceptable.

NOTES -

1) ASME Section XI Plan No 2-1875 was issued as a contingency plan to replace valve MS-V-22A body to bonnet joint. VT-1 visual examinations on the replacement studs and nuts were performed in anticipation to replace the studs and nuts for the valve body to bonnet joint. However the existing VT-3 visually examined studs and nuts were reinstalled for valve MS-V-22A body to bonnet joint. 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.

2) See ASME Section XI Plan No's 2-1826, 2-1876 and 2-1877 for additional work performed on valve MS-V-22A.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 7/2/03 Date 7/2/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut 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 - See Note 1
 Inspector's Signature

Commissions _____
 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: 07/01/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS-V-22A	Rockwell	JV-2	81	N/A	1973	-----	Yes, Code Class 1

7. Description Of Work Performed: See note 1 below.

NOTES -

1) This plan was issued to recondition the valve bore inside (ID) surfaces. See ASME Section XI Plan No 2-1877 for the ASME related work performed on the bore inside (ID) surfaces. 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.

2) See ASME Section XI Plan No's 2-1826, 2-1875 and 2-1877 for additional work performed on valve MS-V-22A.



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 7/2/03 Date 7/2/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut 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 - See Note 1

Inspector's Signature

Commissions

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

Date: 07/01/03
Sheet: 1 Of 1
Unit: Not Applicable

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS-V-22A	Rockwell	JV-2	81	N/A	1973	-----	Yes, Code Class 1

7. Description Of Work Performed: Repaired the bore inside (ID) surfaces for valve MS-V-22A. The repair work was performed as follows:

- 1) Prepared the gouges for weld repair.
- 2) Performed magnetic particle (MT) examination on the final cavities. Magnetic particle (MT) examination results acceptable.
- 3) Weld repaired (weld built up) the cavities.
- 4) Ground/blended the weld repaired areas flush with the adjacent base metal to match the contour of the inside surfaces.
- 5) Performed visual examination on the final welded surfaces. Visual examination results acceptable.
- 6) Performed magnetic particle (MT) examination on the final ground/blended areas. Magnetic particle (MT) examination results acceptable accept for two (2) linear indications were observed and believed to be non-relevant. Performed liquid penetrant (PT) examination to verify non-relevant status of the two (2) indications. Liquid penetrant (PT) examination revealed that the magnetic particle (MT) examination indications were non-relevant.
- 7) Performed post repair VT-3 visual examinations on the valve body accessible internal surfaces. VT-3 visual examination results acceptable.

NOTES -

- 1) Post repair VT-3 visual examinations on the valve bonnet accessible internal surfaces was not required since the bonnet was not repaired. See ASME Section XI Plan No 2-1826 for the initial VT-3 visual examination performed on the valve bonnet accessible internal surfaces.
- 2) See ASME Section XI Plan No's 2-1826, 2-1875 and 2-1876 for additional work performed on valve MS-V-22A.

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

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

Test Pressure: Psig

Test Temperature: °F

Component Design Pressure: Psig

Temperature: °F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Signed By

Kuldip Singh
Kuldip Singh - Program Lead Engineer (PLE)

Date

7/1/03

Date

7/1/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 6-19-03 to 7-1-03 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. Frito
Inspector's Signature

Commissions

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

Date

7-1-03



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: 07/01/03

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: High Pressure Core Spray (HPCS) System

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
HPCS(1)-4CL2	WPPSS *	HPCS(1)-4CL2-P2	N/A	N/A	1982	-----	Yes, Code Class 2

7. Description Of Work Performed: Replaced pipe nipple between valve HPCS-V-713 and valve HPCS-V-714. The repair/replacement work was performed as follows:

- 1) Removed existing pipe nipple.
- 2) Installed replacement pipe nipple.
- 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.


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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 7/1/03 Date 7/1/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 06/21/03 to 07/16/03 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.

John D. Dumbley Commissions 8032 W A.C.I.N
 Inspector's Signature National Board, State, and Endorsements

Date 07/16/03



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: 07/01/03

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

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

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

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS(9)-4 MS-1368-12 MS-1368-12	WPPSS * Pacific Scientific Pacific Scientific	MS(9)-4-P1 4013 14987	N/A N/A N/A	N/A N/A N/A	1983 ----- 1982	----- Replaced Replacement	Yes, Code Class 1 No, Code Class** Yes, Code Class***

7. Description Of Work Performed: Replaced existing snubber for support MS-1368-12. The replacement work was performed as follows:

- 1) Removed existing PSA-1/2 snubber, Serial No 4013.
- 2) Installed replacement PSA-1/2 snubber, Serial No 14987.
- 3) Torqued the fasteners to the required torque value.
- 4) Performed operability test on the replacement snubber. Operability test acceptable.
- 5) Performed VT-3 visual examination on the installed replacement snubber. VT-3 visual examination results acceptable.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) ** ASME Section III, Code Class NF snubber.
- 3) *** ASME Section III, Code Class NF(1) snubber.
- 4) The replacement PSA-1/2 snubber, Serial No 14987 is certified to comply with ASME Section III, Code Class NF(1), 1977 Edition with Winter 1978 Addenda requirements.
- 5) The existing ASME Code Stamped piping system in which the replacement snubber PSA-1/2 snubber, Serial No 14987 was installed is Main Steam (RHR) piping system MS(9)-4-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.



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

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

9. Remarks: See attached NF-1 Code Data Report for the replacement snubber, Serial No 14987.

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 7/2/03 Date 7/2/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 05/31/03 to 07/01/03 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.

John J. Dwyer Commissions 8032 IV AC IN
 Inspector's Signature National Board, State, and Endorsements

Date 07/16/03

FORM NF-1 NPT CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS*
As Required by the Provisions of the ASME Code Rules, Section III, Division 1 E-WT-709

#1/2

Manufactured by Pacific Scientific 1346 S. State College Blvd. Anaheim, Ca. 92803
(Name and address of NPT Certificate Holder)

2. Manufacturer for ITT Grinnell Corporation 621 Dana Street N.E. Warren, Ohio 44481
(Name and address of purchaser or owner)

3. Location of Installation Unknown

4. Identification

(a) Component Support I.D. No.	(b) Canadian Registration No.	(c) Applicable Drawings with Last Rev. & Date	(d) Stress Report or Load Capa- city Data Sheet	(e) Type of Component Support	(f) Class	(g) Nat'l Board No.	(h) Year Built
(1) <u>14578 -</u>	<u>None</u>	<u>1801104-07-J</u>	<u>DR 1413 Rev.0</u>	<u>Linear</u>	<u>1</u>	<u>None</u>	<u>1982</u>
(2) <u>14597</u>							
(3) <u>14958 -</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>"</u>
(4) <u>14987</u>							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. Remarks: MS-1368-12, SIN 14987
6/24/03

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that these components supports conform to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Division 1, Edition 1977, Addenda Winter '78.
Code Case No. 1644-7 (Date)

Date 3-14-82 Signed Pacific Scientific by Edward R. Thompson
(NPT Certificate Holder)

Our ASME Certificate of Authorization No. 1198 to use the Component Support
(NPT)

Symbol expires Aug. 4, 1984
(Date)

CERTIFICATION OF DESIGN

Design Information on File at Pacific Scientific

Stress Report or Load Capacity Data Sheets on File at:
Pacific Scientific

Filed Per NCA 3256

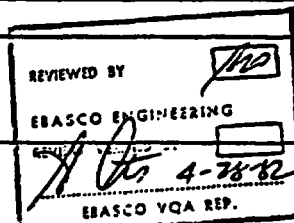
Design Specifications Certified by (1) Leo E. Ay PE State California

Reg. No. 13533

Stress Analysis Report or Load Capacity Data Sheets Certified by (1) Leo E. Ay

PE State California Reg. No. 13533

(*) List name only, signature not required.



MAR 31 1982

REVIEWED BY PS

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

CERTIFICATE OF SHOP INSPECTION

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

have inspected the component supports described in this Data Report on 3/23/82

is and state that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 3/23/82

Signed 

Commissions CA-1513 / OHIO COMMISSION
(Nat'l Bd., State, Prov., and No.)

CERTIFICATION OF FIELD INSPECTION

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

 have compared the statements in this Data Report with the described component supports and state that the parts referred to as data items , not included in the certificate of shop inspection, have been inspected by me and that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date

Signed Commissions

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



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

1. Owner: Energy Northwest

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

Date: 07/01/03

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 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
RHR(1)-4B1 RHR-2264-11 RHR-2264-11	WPPSS * Pacific Scientific Pacific Scientific	RHR(1)-4B1-P1 28454 27682	N/A N/A N/A	N/A N/A N/A	1983 1982 1982	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class ** Yes, Code Class **

7. Description Of Work Performed: Replaced existing snubber for support RHR-2264-11. The replacement work was performed as follows:

- 1) Removed existing PSA-1/4 snubber, Serial No 28454.
- 2) Installed replacement PSA-1/4 snubber, Serial No 27682.
- 3) Torqued the fasteners to the required torque value.
- 4) Performed operability test on the replacement snubber. Operability test acceptable.
- 5) Performed VT-3 visual examination on the installed replacement snubber. VT-3 visual examination results acceptable.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) ** ASME Section III, Code Class NF(1) snubbers.
- 3) The replacement PSA-1/4 snubber, Serial No 27682 is certified to comply with ASME Section III, Code Class NF(1), 1977 Edition with Winter 1978 Addenda requirements.
- 4) The existing ASME Code Stamped piping system in which the replacement snubber PSA-1/4 snubber, Serial No 27682 was installed is Residual Heat Removal (RHR) piping system RHR(1)-4B1-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.



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

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

9. Remarks: See attached NF-1 Code Data Report for the replacement snubber, Serial No 27682.

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 7/2/03 Date 7/2/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 05/31/03 to 07/01/03 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.

John J. Dondley Commissions 8032W ACIN
 Inspector's Signature National Board, State, and Endorsements
 Date 07/16/03

FORM NF-1 NPT CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS

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

E-WZ-498 #14

Mr. Tech Division

1. Manufactured by Pacific Scientific 1346 S. State College Blvd. Anaheim, Ca. 92803

(Name and address of NPT Certificate Holder)

Manufacturer for ITT Grinnell Corporation 621 Dana Street N.E. Warren, Ohio 44481

(Name and address of purchaser or owner)

3. Location of Installation Unknown

4. Identification

(a) Component Support I.D. No.	(b) Canadian Registration No.	(c) Applicable Drawings with Last Rev. & Date	(d) Stress Report or Load Capacity Data Sheet	(e) Type of Component Support	(f) Class	(g) Nat'l Board No.	(h) Year Built
(1) 27670	None	1801104-05-J	DR 1412 Rev. 0	Linear	1	None	1982
(2) thru							
(3) 27814							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

RAR-2264-II, SIN 27682

Study Sup 5

6/24/03

5. Remarks: Inspection Test Reports, CTR's and Certificate of Conformance reviewed and meet ASME Sec III 1974 Edition, Summer '76 Addenda and Code Case 1644-6.

CERTIFICATE OF COMPLIANCE

I, certify that the statements made in this report are correct and that these components supports conform to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Division 1, Edition 1977, Addenda Winter '78

Code Case No. 1644-7

Date 7-29-82

Signed Pacific Scientific

(NPT Certificate Holder)

by Ronli A. Nantz

(Date)

Our ASME Certificate of Authorization No. 1198

to use the "NPT"

(NPT)

Symbol expires Aug. 4, 1984

(Date)

CERTIFICATION OF DESIGN

Design Information on File at Pacific Scientific

Stress Report or Load Capacity Data Sheets on File at:

Pacific Scientific

Filed Per NCA 3256

Design Specifications Certified by (1) Leo E. Ay

PE State California

GRINNELL GROUP
California Insurance

Reg. No. 13533

Stress Analysis Report or Load Capacity Data Sheets Certified by (1) Leo E. Ay

PE State California

Reg. No. 13533

List name only, signature not required.

REVIEWED BY

ERASCO ENGINEERING

REVIEW VERIFIED BY

ERASCO VERIFIED BY

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

AUG 11 1982

PS

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 CTLO and employed by ESB&I Co. of Hartford, CT have inspected the component supports described in this Data Report on JUL 30 1982

and state that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date JUL 30 1982

Signed *Raymond H. Regale* Commissions CA-1513/CHIO COMMISSION
(Nat'l Bd., State, Prov., and No.)

CERTIFICATION OF FIELD INSPECTION

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

_____ have compared the statements in this Data Report with the described component supports and state that the parts referred to as data items _____, not included in the certificate of shop inspection, have been inspected by me and that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date _____

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



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

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

Date: 07/01/03

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
RWCU(3)-4 RWCU-1C-8 RWCU-1C-8	WPPSS * Pacific Scientific Pacific Scientific	RWCU(3)-4-P1 2587 10598	N/A N/A N/A	N/A N/A N/A	1983 1977 1980	----- Replaced Replacement	Yes, Code Class 1 Yes, Code Class** Yes, Code Class**

7. Description Of Work Performed: Replaced existing snubber for support RWCU-1C-8. The replacement work was performed as follows:

- 1) Removed existing PSA-3 snubber, Serial No 2587.
- 2) Installed replacement PSA-3 snubber, Serial No 10598.
- 3) Installed four (4) snubber assembly bolts.
- 4) Torqued the fasteners to the required torque value.
- 5) Performed operability test on the replacement snubber. Operability test acceptable.
- 6) Performed VT-3 visual examination on the installed replacement snubber. VT-3 visual examination results acceptable.

NOTES-

- 1) * Company name changed from Washington Public Power Supply System (WPPSS) to Energy Northwest in 1999.
- 2) ** ASME Section III, Code Class NF(1) snubbers.
- 4) The replacement PSA-3 snubber, Serial No 10598 is certified to comply with ASME Section III, Code Class NF(1), 1974 Edition with Winter 1976 Addenda requirements.
- 5) The existing ASME Code Stamped piping system in which the replacement snubber PSA-3 snubber, Serial No 10598 was installed is Reactor Water Clean Up (RWCU) piping system RWCU(3)-4-P1. This piping system is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1973 Addenda requirements.



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

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

9. Remarks: See attached NF-1 Code Data Report for the replacement snubber, Serial No 10598.

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 7/2/03 Date 7/2/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 05/31/03 to 07/01/03 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 8032 W ACIN
 Inspector's Signature National Board, State, and Endorsements
 Date 07/16/03

FORM NF-1 NPT CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS*

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

3

1. Manufactured by Pacific Scientific 1346 S. State College Blvd. Anaheim, Ca. 92803
(Name and address of NPT Certificate Holder)

Manufacturer for ITT Grinnell Corp. 621 Dana Street N.E. Warren, Ohio 44481
(Name and address of purchaser or owner)

3. Location of Installation Unknown

4. Identification

(a) Component Support I.D. No.	(b) Canadian Registration No.	(c) Applicable Drawings with Last Rev. & Date	(d) Stress Report or Load Capa- city Data Sheet	(e) Type of Component Support	(f) Class	(g) Nat'l Board No.	(h) Year Built
(1) <u>10511-10628</u>	<u>None</u>	<u>1801106-05-H</u>	<u>DR-1350-Rev. B</u>	<u>Linear</u>	<u>1</u>	<u>None</u>	<u>1980</u>
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. Remarks: 6/24/03

CERTIFICATE OF COMPLIANCE

certify that the statements made in this report are correct and that these components supports conform to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Division 1, Edition '74, Addenda Winter '76
Code Case No. 1644-5 (Date)

Date 25 January 1980 Signed Pacific Scientific by Billy Jenkins
(NPT Certificate Holder)

Our ASME Certificate of Authorization No. 1198 to use the Component Supports
(NPT)

Symbol expires Aug. 4, 1981
(Date)

CERTIFICATION OF DESIGN

Design Information on File at: Pacific Scientific

Stress Report or Load Capacity Data Sheets on File at:
Pacific Scientific

Filed Per NA 3256

Design Specifications Certified by (1) Leo E. Ay PE State California

Reg. No. 13533

Stress Analysis Report or Load Capacity Data Sheets Certified by (1) Leo E. Ay

PE State California Reg. No. 13533

List name only, signature not required.

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

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of New York and employed by ESBISI Co. of Hartford, CT

have inspected the component supports described in this Data Report on 7/25 1980 and state that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 7/25/80

Signed William May Commissions A. Y. Comm #2770 / Ohio Comm
(Nat'l Bd., State, Prov., and No.)

CERTIFICATION OF FIELD INSPECTION

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

have compared the statements in this Data Report with the described component supports and state that the parts referred to as data items _____, not included in the certificate of shop inspection, have been inspected by me and that to the best of my knowledge and belief the NPT Certificate Holder has constructed these component supports in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date _____

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



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: 06/12/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: 1361-1

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD CRD	GE GE	A8743 6108	N/A N/A	N/A N/A	1988 1974	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 02-43. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No A8743.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No 6108.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No 6108 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No 6108.
 2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 6/12/03 Date 6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-13-03 to 7-1-03 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 7486-11/7486 NIS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

W0701044800 15
FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES

As required by the Provisions of the ASME Code Rules

Quick Sup
6/12/03

1. (a) Manufactured by General Electric Company, Castle Hayne Rd., Wilmington, N. C.
(Name and address of Manufacturer of part)
(b) Manufactured for General Electric Company, San Jose, California
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part 6108 ✓ Nat'l Bd. No. _____
- (a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson
- (b) Description of Part Inspected Control Rod Drive, Model #7RDB144 G1
- (c) Applicable ASME Code: Section III, Edition 1971, Addenda date None, Case No. 1361-1 Class 1
3. Remarks: Standard part for use with Reactor. Hydrostatically tested at 1820 ps.
(Brief description of service for which component was designed)
minimum.

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

Date December 17 19 74 Signed GE, BWRSD - REM *[Signature]*
(Manufacturer)
Certificate of Authorization Expires June 20, 1975 Certificate of Authorization No. NPT - 462

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington

Stress analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington

Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina

have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on December 17 19 74, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

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

Date December 17 19 74

[Signature]
Inspector's Signature

Commission NC 723, PA. NC 1766, Ohio
National Board, State, Province and No.

FORM No. 1, Back

Items 1-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shell and heat exchangers.

1. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Allowance _____ in. Dia. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)2. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Top, bottom, ends) (Conv. or Conc.)

(a) _____

(b) _____

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or attach section)7. Jacket Closure: _____
(Describe as gage and weld, bar, etc. If barg give dimensions, if bolted, describe or sketch)8. Design pressure² 1250 psi at 575° of _____
Drop Weight _____
Charpy Impact _____
at temp. of _____

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Std. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)12. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____13. Heads (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Top, bottom, ends) (Conv. or Conc.)

(a) Top, bottom, ends _____

(b) Channel _____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach section)14. Design pressure² _____ psi at _____ °F
Drop Weight _____
Charpy Impact _____
at temp. of _____

Items below to be completed for all vessels where applicable.

FOR INFORMATION ONLY

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
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17. Inspection Manholes, No. _____ Size _____ Location _____

Openings: Handholes, No. _____ Size _____ Location _____

Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ (Number) _____ Legs _____ (Number) _____ Other _____ (Describe) _____ Attached _____ (Where & How)



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: 06/12/03

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: 1361-1

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	GE	6326	N/A	N/A	1974	Replaced	Yes, Code Class 1
CRD	GE	6088	N/A	N/A	1974	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 18-31. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No 6326.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No 6088.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No 6088 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No 6088.
 2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test 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 6/12/03

Date 6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-12-03 to 7-1-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature]
 Inspector's Signature

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

Date 7-1-03

W07 01044 800 28
FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES

As required by the Provisions of the ASME Code Rules

Quap Sup 6
6/2/03

1. (a) Manufactured by General Electric Company, Castle Hayne Rd., Wilmington, N. C.
(Name and address of Manufacturer of part)
- (b) Manufactured for General Electric Company, San Jose, California
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part 6088 Nat'l Id. No. _____
- (a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson
- (b) Description of Part Inspected Control Rod Drive, Model #7RDB144 C1
- (c) Applicable ASME Code: Section III, Edition 1971, Addenda date None, Case No. 1361-2 Class 1
3. Remarks: Standard part for use with Reactor. Hydrostatically tested at 1620 psi
(Brief description of service for which component was designed)
minimum.

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

Date December 17 19 74 Signed GE, BWRSD - REM By Wm. J. Henderson
(Manufacturer)
Certificate of Authorization Expires June 20, 1975 Certificate of Authorization No. NPT - 462

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington
Stress analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington
Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488
Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor
of State of North Carolina

have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on December 17 19 74, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

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

Date December 17 19 74

FOR INFORMATION ONLY

E. L. Sherrill
Inspector's Signature

Commission NC 723, PA 1766, Ohio
National Board, State, Province and No.

FORM No. 1 (back)

Items 1-5 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Top, bottom, ends) (Conv. or Conc.)

(a) _____

(b) _____

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)7. Jacket Closure: _____
(Describe as gages and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)8. Design pressure² 1250 psi at 575³ °F Drop Weight _____
Charpy Impact _____
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted,

Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)12. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Top, bottom, ends) (Conv. or Conc.)

(a) Top, bottom, ends _____

(b) Channel _____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)14. Design pressure² _____ psi at _____ °F Drop Weight _____
Charpy Impact _____
at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached

17. Inspection Manholes, No. _____ Size _____ Location _____

Openings: Handholes, No. _____ Size _____ Location _____

Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ (Number) _____ Other _____ Attached _____
(Yes or No) (Where & How)



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: 06/12/03

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: 1361-2

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD CRD	GE GE	6717 A8655	N/A N/A	N/A N/A	1975 1988	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 14-51. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No 6717.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No A8655.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No A8655 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

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

Test Pressure: 1030 Psig

Test Temperature: 199.8° F

Component Design Pressure: 1250 Psig

Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No A8655.

2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test 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

6/12/03

Date

6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-17-03 to 7-1-03 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

7486.10/7486 NIS
National Board, State, and Endorsements

Date

7-1-03

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5/12/03

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. 1

1. Manufactured & Certified by: GE Company, 2117 Castle Hayne Rd., Wilmington, N.C. 28402
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for: WNP-2, RICHLAND, Wa. 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holders's S/N of Part: A8655 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: CYLINDER TUBE & FLANGE
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75 Case No. 1361-2 Class 1
- REMARKS: Sub-assembly of Control Rod Drive for use with reactor.
(Brief description of service for which component was designed)
Hydrostatically tested at 1825 psi. min.

*Sheet 1 of 2

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

DATE: 5/27, 19 88 Signed GE-NEEG-NF&CM-QA By [Signature]
(NPT Certificate Holder)

Certificate Of Authorization Expires: 6/16/90 Certification of Authorization No.: NPT N-1151

CERTIFICATION OF DESIGN FOR APPURTENANCE

Design information on file at GE COMPANY, SAN JOSE, CALIFORNIA

Stress analysis report on file at GE COMPANY, SAN JOSE, CALIFORNIA

DC22A6253 Rev. 0

Design specification certified by BJORN HAABERG Prof. Eng. State CALIF. Reg. No. 15570

DC22A6254 Rev. 0.

Stress analysis report certified by EDWARD YOSHIO Prof. Eng. State CALIF. Reg. No. M018646

CERTIFICATION OF SHOP INSPECTION

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of NORTH CAROLINA and employed by DEPARTMENT OF LABOR of STATE OF NORTH CAROLINA have inspected the part of a pressure vessel described in this Partial Data Report on 5/27, 1988, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

DATE: 5/27, 19 88 [Signature] N.C. 723, PAWC1766, OHIO
Inspector's Signature National Board, State, Province and No.

Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" X 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS"

FORM M-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material T.S. Nominal Thickness in. Allowance in. Dia. ft. in. Length ft. in.
(Kind & Spec.No.) (Min.of Range Specified)
5. Seams: Long H.T.¹ R.T. Efficiency %
Girth H.T.¹ R.T. No. of Courses
6. Heads: (a) Material T.S. (b) Material T.S.
Location (Top Bottom, Ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)
(a)
(b)
If removable, bolts used Other fastening
(Material, Spec.No., T.S. Size Number) (Describe or attach sketch)
7. Jacket Closure:
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)
8. Design Pressure ² 1250 psi at 575 °F Drop Weight ft-lb
Charpy Impact at temp. of °F

Items 9 and 10 to be completed for tube sections.

9. Tube Sheets: Stationary Mat'l. Dia. Thickness in. Attachment
(Kind of Spec. No.) (Subj. to Press.) (Welded, Bolted)
Floating. Material Dia. Thickness in. Attachment
inches
10. Tubes: Material O.D. in. Thickness or gage. Number Type
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers

11. Shell: Material T.S. Nominal Thickness in. Allowance in. Dia. ft. in. Length ft. in.
(Kind & Spec.No.) (Min. of Range Specified)
12. Seams: Long H.T.¹ R.T. Efficiency %
Girth H.T.¹ R.T. No. of Courses
13. Heads (a) Material T.S. (b) Material T.S.
Location (a) Top, Bottom, Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)
End
(b) Channel
If removable, bolts used (a) (b) (c) Other Fastening
(Describe or attach sketch)
Drop Weight ft-lb
Charpy Impact at temp. of °F
14. Design pressure² psi at °F at temp. of °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number Size Location
16. Nozzles:
Purpose (Inlet Outlet, Drain) Number Dia or Size Type Material Thickness Reinforcement Material Attached
17. Inspection Manholes, No. Size Location
Openings: Handles, No. Size Location
Threaded, No. Size Location
18. Supports: Shirt Lugs Legs Other Attached
(Yes or No) (Number) (Number) (Describe) (Where & How)

¹ If Postweld Heat-Treated.

² List other internal or external pressure with coincident temperature when applicable.



FORM 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: 06/12/03

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: 1361-2

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD CRD	GE GE	A8721 A9264	N/A N/A	N/A N/A	1988 1995	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 30-19. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No A8721.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No A9264.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No A9264 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

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

Test Pressure: 1030 Psig

Test Temperature: 199.8° F

Component Design Pressure: 1250 Psig

Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No A9264.

2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/12/03 Date 6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-12-02 to 7-1-02 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

A. M. Foster Commissions 74861-7486 N I ns
Inspector's Signature National Board, State, and Endorsements

Date 7-1-02

W07 01044800 36

Ready Sup

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. I

6/17/90

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
 (Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9264 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 19 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
 (Brief description of service for which component was designed)

Sheet 1 of 2

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

Date: 06/27/95Signed GE - NEBG - NF & CM - QA
 (NPT Certificate Holder)

By

SC QA Representative

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151**Certification of Design for Appurtenance**Design information on file at GE Company, San Jose, CaliforniaStress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Blom Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646**Certification of Shop Inspection**

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 6/27, 1995, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

Date

6/27, 1995 James P. Egan

Inspector's Signature

NC 1231, Ohio, WC 3686 PA

National Board, State, Province And No.

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

(87/94)

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. ¹ _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. ¹ _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location (Top Bottom, Ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) _____	_____	_____	_____	_____	_____	_____	_____	_____
(b) _____	_____	_____	_____	_____	_____	_____	_____	_____

If removable, bolts used _____ (Material, Spec. No., T.S. Size Number) Other fastening _____ (Describe or attach sketch)

7. Jacket Closure: _____ (Describe as cage and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

8. Design pressure ² _____ 1250 _____ psi at _____ 575 _____ ° F at temp of _____ ° F
Drop Weight _____
Charpy Impact _____ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. ¹ _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. ¹ _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) Top, bottom, ends	_____	_____	_____	_____	_____	_____	_____	_____
(b) Channel	_____	_____	_____	_____	_____	_____	_____	_____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____ (Describe or attach sketch)

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F
Drop Weight _____
Charpy Impact _____ ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

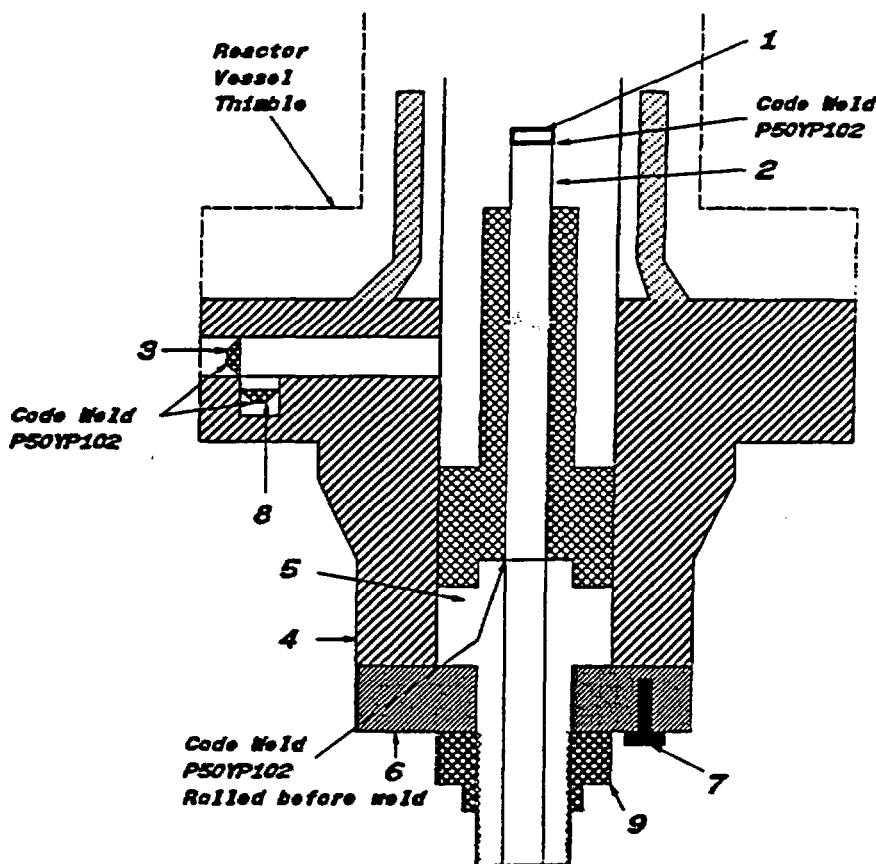
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. 1.

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
 (Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9264 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 19 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
 (Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
SA182 - F316
3/8" thick x 1 1/16" OD
2. Indicator Tube 167B4908P001
SA312 - TP316
3/4" sch 40 - seamless pipe
0.113" wall thickness
1.065" max. dia.
3. Plug 159A1176P001
SA182 - F304
1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)
SA182 - F304
3.37" thick x 9 5/8" OD
5. Head 129B3539P005
SA182 - F304
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002
SA182 - F304
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002
SA193 - B6
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001
SA182 - F304
0.38" thick x 1.307" dia.
9. Nut 114B5460P001
XM - 19 SA479
1.30" thick x 2.62" dia.





FORM 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: 06/12/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: 1361-2

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	GE	6456	N/A	N/A	1974	Replaced	Yes, Code Class 1
CRD	GE	A9322	N/A	N/A	1993	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 30-03. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No 6456.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No A9322.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No A9322 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

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

Test Pressure: 1030 Psig

Test Temperature: 199.8° F

Component Design Pressure: 1250 Psig

Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No A9322.

2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test 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

6/12/03

Date

6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-12-03 to 7-1-03 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. Fortis
Inspector's Signature

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

Date

7-1-03

407 0104480052

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

- 6/12/03
Shirley R. Ruff
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9322 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D.L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 1 of 2

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

Date: 01/28/93

Signed GE-NEBG-NF & CM-OA
(NPT Certificate Holder)

By [Signature]
(SC QA Representative)

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Blom Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 1/25, 1993 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

1/28
Date

1993 George P. Enver
Inspector's Signature

NC 1231, Ohio, WC 3686 PA
National Board, State, Province And No.

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

(07/90)

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location (Top Thickness Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.
Bottom, Ends) Radius Radius Ratio Apex Angle Radius Diameter (conv. or conc.)
(a) _____
(b) _____
If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

Drop Weight _____ ft-lb
Charpy Impact _____ ° F

8. Design pressure ² _____ 1250 psi at _____ 575 ° F at temp of _____ ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U.I.)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.
(a) Top, bottom, ends Radius Radius Ratio Apex Angle Radius Diameter (conv. or conc.)
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)

Drop Weight _____ ft-lb
Charpy Impact _____ ° F

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached

17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

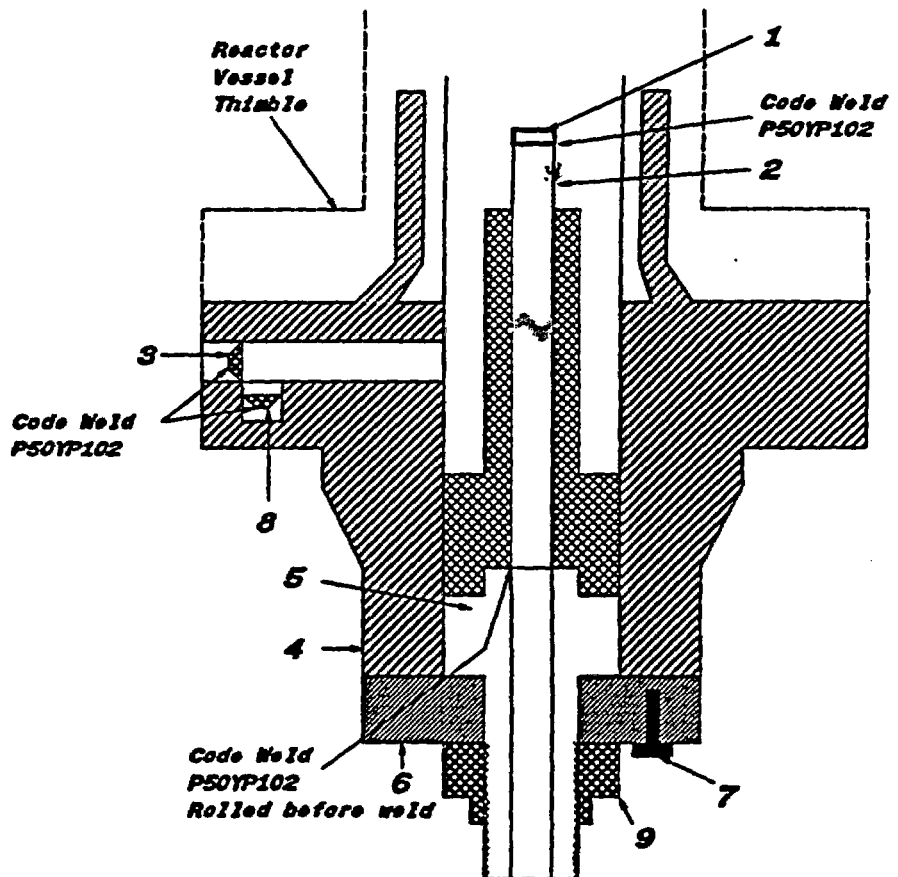
2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9322 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D.L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
SA182 - F304
3/8" thick x 1 1/16" OD
2. Indicator Tube 166B9313P001
SA312 - TP316
3/4" sch 40 - seamless pipe
0.113" wall thickness
1.065" max. dia.
3. Plug 159A1176P001
SA182 - F304
1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)
SA182 - F304
3.37" thick x 9 5/8" OD
5. Base 137C5311P001
SA182 - F304
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002, P003
137C8151P001, P002
SA182 - F304
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002
SA193 - B6
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001
SA182 - F304
0.38" thick x 1.307" dia.
9. Nut 137C5934P001
XM - 19 SA479
1.30" thick x 2.62" dia.





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: 06/12/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: 1361-2

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	GE	A8478	N/A	N/A	1989	Replaced	Yes, Code Class 1
CRD	GE	A9343	N/A	N/A	1993	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 18-11. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No A8478.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No A9343.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No A9343 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No A9343.
 2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 6/12/03 Date 6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-17-03 to 7-1-03 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. Forster Commissions 748612/7486 N I NS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

(W07 01044800 61)

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div I

- e/12103
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9343 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D.L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 1 of 2

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

Date: 01/28/93

Signed GE - NEBG - NF & CM - QA
(NPT Certificate Holder)

By [Signature]
(SC QA Representative)

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Blorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 1/26, 1993 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

Date

1/28, 1993

[Signature]
Inspector's Signature

NC 1231, Ohio, WC 3686 PA

National Board, State, Province And No.

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

(87/90)

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location (Top Bottom, Ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)
(a) _____
(b) _____
If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

Drop Weight _____
Charpy Impact _____ ft-lb

8. Design pressure ² _____ 1250 psi at _____ 575 ° F at temp of _____ ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Stk. or U)

Items 11 - 14 Incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)
(a) Top, bottom, ends _____
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)

Drop Weight _____
Charpy Impact _____ ft-lb

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached

17. Inspection Openings: Manholes, No. _____ Size _____ Location _____
Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

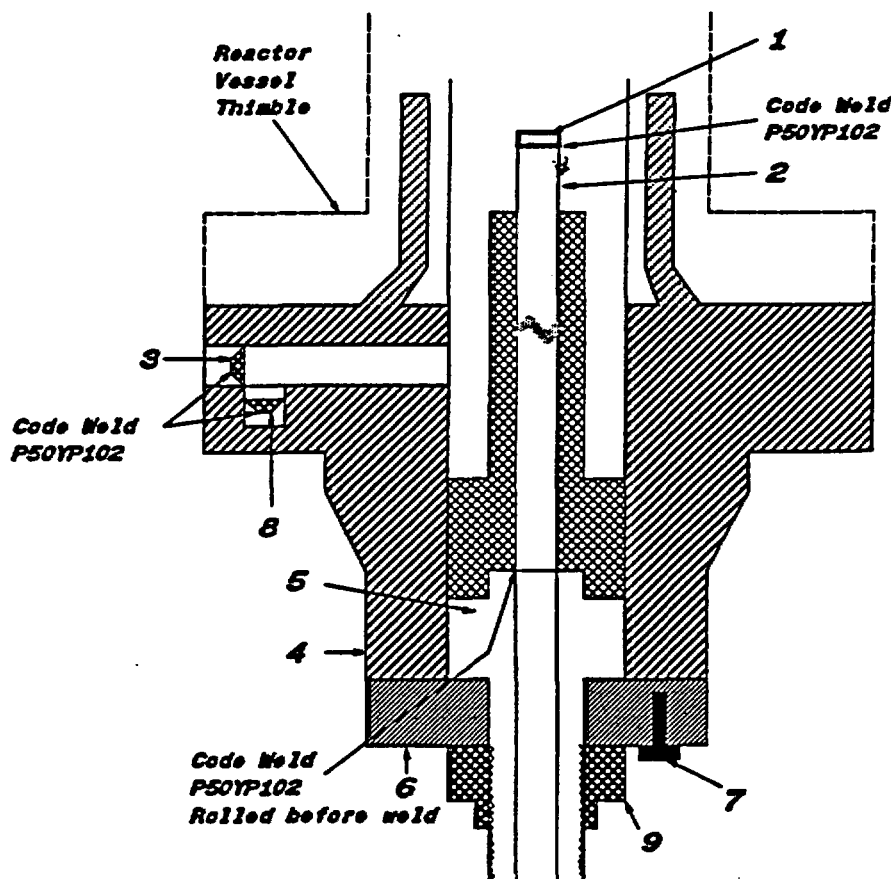
W07 01044800 61

Delair Singh

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9343 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: Cylinder Tube & Flange
 - (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
SA182 - F304
3/8" thick x 1 1/16" OD
2. Indicator Tube 166B9313P001
SA312 - TP316
3/4" sch 40 - seamless pipe
0.113" wall thickness
1.065" max. dia.
3. Plug 159A1176P001
SA182 - F304
1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)
SA182 - F304
3.37" thick x 9 5/8" OD
5. Base 137C5311P001
SA182 - F304
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002, P003
137C8151P001, P002
SA182 - F304
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002
SA193 - B6
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001
SA182 - F304
0.38" thick x 1.307" dia.
9. Nut 137C5934P001
XM - 19 SA479
1.30" thick x 2.62" dia.





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: 06/12/03

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: 1361-2

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD CRD	GE GE	4608 A8461	N/A N/A	N/A N/A	1975 1988	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 14-43. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No 4608.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No A461.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No A8461 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No A8461.
 2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/12/03 Date 6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-12-03 to 7-1-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions 74866/7486 N I NS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

W07 01044800 70

Dwainp. Supb
6/12/03

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. 1

1. Manufactured & Certified by: GE Company, 2117 Castle Hayne Rd., Wilmington, N.C. 28402
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for: WNP-2, RICHLAND, Wa. 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holders's S/N of Part: A8461 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 919D258G003 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: CYLINDER TUBE & FLANGE
 - (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75 Case No. 1361-2 Class 1
3. REMARKS: Sub-assembly of Control Rod Drive for use with reactor.
(Brief description of service for which component was designed)
Hydrostatically tested at 1825 psi. min.

*Sheet 1 of 2

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

DATE: 12/31, 19 88 Signed GE-NREG-NP&OM-OA By [Signature]
(NPT Certificate Holder)

Certificate Of Authorization Expires: 6/16/90 Certification of Authorization No.: NPT N-1151

CERTIFICATION OF DESIGN FOR APPURTENANCE

Design information on file at GE COMPANY, SAN JOSE, CALIFORNIA

Stress analysis report on file at GE COMPANY, SAN JOSE, CALIFORNIA

DC22A6253 Rev. 0

Design specification certified by BJORN HAABERG Prof. Eng. State CALIF. Reg. No. 15570

DC22A6254 Rev. 0.

Stress analysis report certified by EDWARD YOSHIO Prof. Eng. State CALIF. Reg. No. M018646

CERTIFICATION OF SHOP INSPECTION

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of NORTH CAROLINA and employed by DEPARTMENT OF LABOR of STATE OF NORTH CAROLINA have inspected the part of a pressure vessel described in this Partial Data Report on 12-31 19 88, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

DATE 12-31, 19 88 [Signature] NC 779, PA WC2L60, OHIO
Inspector's Signature National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" X 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS"

(10/77)

VERIFIED & ACCEPTED [Signature]
1-18-88

R.I. Inspector Date

FORM M-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material T.S. Nominal Thickness in. Allowance in Dia. ft. in. Length ft. in.
(Kind & Spec.No.) (Min.of Range Specified)
5. Seams: Long H.T.¹ R.T. Efficiency %
Girth H.T.¹ R.T. No. of Courses
6. Heads: (a) Material T.S. (b) Material T.S.
Location (Top Bottom, Ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)
(a)
(b)
If removable, bolts used Other fastening
(Material, Spec.No., T.S. Size Number) (Describe or attach sketch)
7. Jacket Closures:
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)
8. Design Pressure ² 1250 psi at 575 °F Drop Weight
Charpy Impact ft-lb
at temp. of °F

Items 9 and 10 to be completed for tube sections.

9. Tube Sheets: Stationary Mat'l. Dia. Thickness in. Attachment
(Kind of Spec. No.) (Subj. to Press.) (Welded, Bolted)
Floating. Material Dia. Thickness in. Attachment
 inches
10. Tubes: Material O.D. in. Thickness or gage. Number Type
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers

11. Shell: Material T.S. Nominal Thickness in. Allowance in. Dia. ft. in. Length ft. in.
(Kind & Spec.No.) (Min. of Range Specified)
12. Seams: Long H.T.¹ R.T. Efficiency %
Girth H.T.¹ R.T. No. of Courses
13. Heads (a) Material T.S. (b) Material T.S.
Location (a) Top, Bottom, Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)
End
(b) Channel
If removable, bolts used (a) (b) (c) Other Fastening
(Describe or attach sketch
Drop Weight
Charpy Impact ft-lb
at temp. of °F
14. Design pressure² psi at °F at temp. of °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number Size Location
16. Nozzles:
Purpose (Inlet Outlet, Drain) Number Dia or Size Type Material Thickness Reinforcement Material Attached
17. Inspection Openings: Manholes, No. Size Location
Handles, No. Size Location
Threaded, No. Size Location
18. Supports: Shirt Lugs Legs Other Attached
(Yes or No) (Number) (Number) (Describe) (Where & How)

¹ If Postweld Heat-Treated.

² List other internal or external pressure with coincident temperature when applicable.



FORM 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: 06/12/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: 1361-1

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	GE	A8664	N/A	N/A	1988	Replaced	Yes, Code Class 1
CRD	GE	6552	N/A	N/A	1975	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 18-07. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No A8664.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No 6552.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No 6552 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No 6552.
 2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/12/03 Date 6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-17-03 to 7-1-03 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. Frost Commissions 748612/7486 n I n S
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

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

As required by the Provisions of the ASME Code Rules

Dwain Singh

1. (a) Manufactured by General Electric Company, Castle Hayne Rd., Wilmington, N. C. 912403
(Name and address of Manufacturer of part)
- (b) Manufactured for General Electric Company, San Jose, California
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part 6552 Nat'l Bd. No. _____
- (a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson
- (b) Description of Part Inspected Control Rod Drive, Model #7RDB144 G1
- (c) Applicable ASME Code: Section III, Edition 1971, Addenda date None, Case No. 1361-1 Class 1
3. Remarks: Standard part for use with Reactor. Hydrostatically tested at 1620 psi
(Brief description of service for which component was designed)
minimum.

FOR INFORMATION ONLY

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

Date January 24 19 75 Signed GE, BWRSD - REM

(Manufacturer)

By [Signature]Certificate of Authorization Expires June 20, 1975Certificate of Authorization No. NPT - 462

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., WilmingtonStress analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., WilmingtonDesign specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor
of State of North Carolina

have inspected the part of a pressure vessel described in this
Manufacturer's Partial Data Report on January 24 19 75, and state that to the best of my knowledge
and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

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

Date January 24 19 75

E. L. Sherrill
Inspector's Signature

Commissions NC 723, PA. EC 1766, Ohio
National Board, State, Province and No.

ZX00367578

FORM No. 2 (back)

Items 1-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Top, bottom, ends) (Conv. or Conc.)

(a) _____

(b) _____

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)7. Jacket Closure: _____
(Describe as edge and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)8. Design pressure² 1250 psi at 575³ °F
Drop Weight _____
Charpy Impact _____ at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

FOR INFORMATION ONLY

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)12. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____13. Heads (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Conv. or Conc.)

(a) Top, bottom, ends _____

(b) Channel _____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)14. Design pressure² _____ psi at _____ °F
Drop Weight _____
Charpy Impact _____ at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
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17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

ZX00367571



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: 06/12/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: 1361-2

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	GE	A8713	N/A	N/A	1988	Replaced	Yes, Code Class 1
CRD	GE	A4709	N/A	N/A	1984	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 38-03. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No A8713.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No A4709.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. Leakage was observed during pressure test and was evaluated to be acceptable.

NOTES-

- 1) The replacement CRD assembly, Serial No A4709 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No A4709.
 2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 6/12/03 Date 6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-13-03 to 7-1-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions 74866/7486 N I NS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

W07-0104480074 FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. 1

CORRECTED COPY

1. (a) Manufactured by General Electric Co., Castle Hayne Rd., Wilmington, N.C. 6/12/03
(Name and address of NPT Certificate Holder)

(b) Manufactured for ~~STOCK~~ HANFORD
(Name and address of NPT Certificate Holder for considered nuclear component)

2. Identification-Certificate Holder's Serial No. of Part A4709 Nat'l Bd. No. _____

(a) Constructed According to Drawing No. 91SD258G003 Drawing Prepared by D. L. Peterson

(b) Description of Part Inspected Cylinder Tube and Flange

(c) Applicable ASME Code: Section III, Edition 1974, Addenda date W'75, Case No. 1361-2 Class 1

3. Remarks: Standard part for use with reactor
(Brief description of service for which component was designed)

Hydrostatically tested at 1825 psi.

CORRECTED COPY: ITEM 1. (b) ADDED SITE LOCATION

* Number of sheets - 2

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

Date 6/13 19 84 Signed GE-NEPD-WMD-EM By J. E. Strudensee
NPT Certificate Holder

Certificate of Authorization Expires June 16, 1984 Certificate of Authorization No. K-1151

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.

Stress analysis report on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.

Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Dept of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 6/18 19 81 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

Date 6/13 19 84

E. L. Sherrill
Inspector's Signature

NC-723, PA. WC1766, OHIO
Commissions

National Board, State, Province and No.

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

FORM N-1 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PARTS AND APPURTENANCES

As required by the Provision of the ASME Code Rules, Section III, Div. 1

CORRECTED COPY

1. (a) Manufactured by General Electric Co., Casula Bayne Rd., Wilmington N.C.

(Name and address of NPT Certificate Holder)

(b) Manufactured for HANFORD

(Name and address of N Certificate Holder for completed nuclear components)

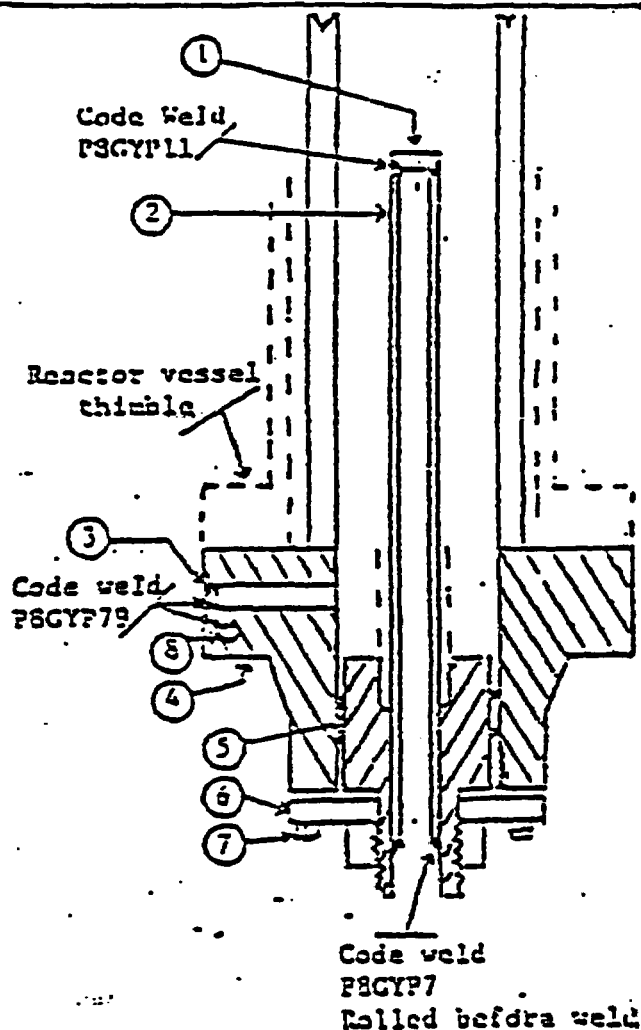
2. Identification-Certificate Holder's Serial No. of Part A4709 Nat'l Bd. No. _____(a) Constructed According to Drawing No. 919D2586003 Drawing Prepared by D. L. Peterson(b) Description of Part Inspected Cylinder Tube and Flange(c) Applicable ASME Code Section III, Edition 1974, Addenda W'75, Case No. 1361-2 Class 13. Remarks Standard part for use with reactor. Hydrostatically tested at 1825 psi.

(Brief description of service for which component was designed)

* Number of sheets - 2

CORRECTED COPY: ITEM 1. (b) ADDED SITE LOCATION

1. Cap 167A2343P1
(167A2343)
SA182-F304
3/8 thick x 1 1/16 OD
2. Indicator Tube 10431336P1
SA312-F316
3/4 sch 40-seamless pipe
0.113 wall thickness
1.063 max. dia.
3. Plug 159A1176P1
SA182-F304
1/4 thick x 0.812 OD
4. Flange 919D610P1 (719E474)
SA182-F304
3.37 thick x 9 5/8 OD
neck 1 1/16 thick x 5.0 OD
2.875 ID
5. Head 12933539P1
SA182-F304
7/8 thick x 2.375 Dia.
6. Ring Flange 11435122P2
SA182-F304
1" thick x 5.0 OD x 1.75 ID
7. Cap Screw 117C4516P2
SA193-36
6 ea 1/2 dia. on 4 1/8 bolt circle
8. Plug 175A7961P1
SA182-F304
0.38 thick x 1.307 dia.



NOT FOR RE-ENTRY TO SERVICE
 NOT FOR RE-ENTRY TO SERVICE

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR REACTOR AND APPURTENANCES

As required by the Provision of the ASME Code Rules, Section III, Div. 1

W01 01044800 74
CORRECTED COPY 6/11/03

1. (a) Manufactured by General Electric Co., Castle Hayne Rd., Wilmington N.C.

(Name and address of NPT Certificate Holder)

(b) Manufactured for HANFORD

(Name and address of N Certificate Holder for employed nuclear component)

2. Identification-Certificate Holder's Serial No. of Part A4709

Nat'l Bd. No.

(a) Constructed According to Drawing No. 919D258G003 Drawing Prepared by D. L. Peterson

(b) Description of Part Inspected Cylinder Tube and Flange

(c) Applicable ASME Code Section III, Edition 1974, Addenda W'75, Case No. 1361-2 Class 1

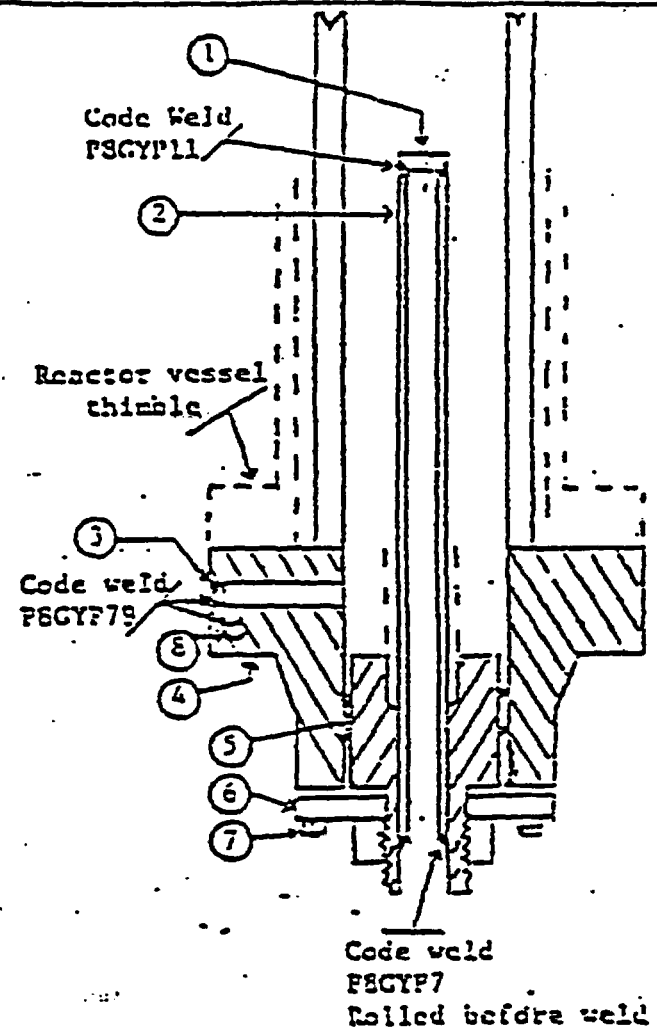
3. Remarks Standard part for use with reactor. Hydrostatically tested at 1825 psi.

(Brief description of service for which component was designed)

* Number of sheets - 2

CORRECTED COPY: ITEM 1. (b) ADDED SITE LOCATION

1. Cap 167A2343P1
(167A2343)
SA182-F304
3/8 thick x 1 1/16 OD
2. Indicator Tube 104B1336P1
SA312-TP316
3/4 sch 40-seamless pipe
0.113 wall thickness
1.065 max. dia.
3. Plug 159A1176P1
SA182-F304
1/4 thick x 0.812 OD
4. Flange 919D610P1 (719E474)
SA182-F304
3.37 thick x 9 5/8 OD
neck 1 1/16 thick x 5.0 OD
2.875 ID
5. Head 129B3539P1
SA182-F304
7/8 thick x 2.875 Dia.
6. Ring Flange 114B5122P2
SA182-F304
1" thick x 5.0 OD x 1.75 ID
7. Cap Screw 117C4516P2
SA193-B6
6 ea 1/2 dia. on 4 1/8 bolt circle
8. Plug 175A7961P1
SA182-F304
0.38 thick x 1.307 dia.



NOT FOR REPRODUCTION OR DISTRIBUTION



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

1. Owner: Energy Northwest

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

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: 1361-2

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	GE	A8470	N/A	N/A	1988	Replaced	Yes, Code Class 1
CRD	GE	A8974	N/A	N/A	1993	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 42-03. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No A8470.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No A8974.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No A8974 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

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

Test Pressure: 1030 Psig

Test Temperature: 199.8° F

Component Design Pressure: 1250 Psig

Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No A8974.

2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test 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

6/12/03

Date

6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-18-03 to 7-1-03 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
Inspector's Signature

Commissions 748644/7496 N I NS
National Board, State, and Endorsements

Date

7-1-03

(WOT 01044800 75)

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

- 6/12/03
Pulley Shop
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A8974 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psl. min.
(Brief description of service for which component was designed)

Sheet 1 of 2

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

Date: 01/28/93 Signed GE - NEBG - NF & CM - QA By [Signature]
(NPT Certificate Holder) (SC QA Representative)

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1
Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1
Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 126, 1993 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

Date

1/28, 1993

Jerome P. Evans
Inspector's Signature

NC 1231, Ohio, WC 3686 PA
National Board, State, Province And No.

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

(87/90)

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.

(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %

Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location (Top Bottom, Ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) _____	_____	_____	_____	_____	_____	_____	_____	_____
(b) _____	_____	_____	_____	_____	_____	_____	_____	_____

If removable, bolts used _____ Other fastening _____

(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: _____

(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

Drop Weight _____
Charpy Impact _____ ft-lb

8. Design pressure ² _____ 1250 _____ psi at _____ 575 _____ ° F at temp of _____ ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____

(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____

(Str. or U)

Items 11 - 14 Incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.

(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %

Girth _____ H.T. _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) Top, bottom, ends	_____	_____	_____	_____	_____	_____	_____	_____
(b) Channel	_____	_____	_____	_____	_____	_____	_____	_____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____

(Describe or attach sketch)

Drop Weight _____
Charpy Impact _____ ft-lb

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles: Purpose (Inlet, Outlet, Drain) _____ Number _____ Dia. or Size _____ Type _____ Material _____ Thickness _____ Reinforcement Material _____ How Attached _____

17. Inspection Openings: Manholes, No. _____ Size _____ Location _____

Handholes, No. _____ Size _____ Location _____

Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____

(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

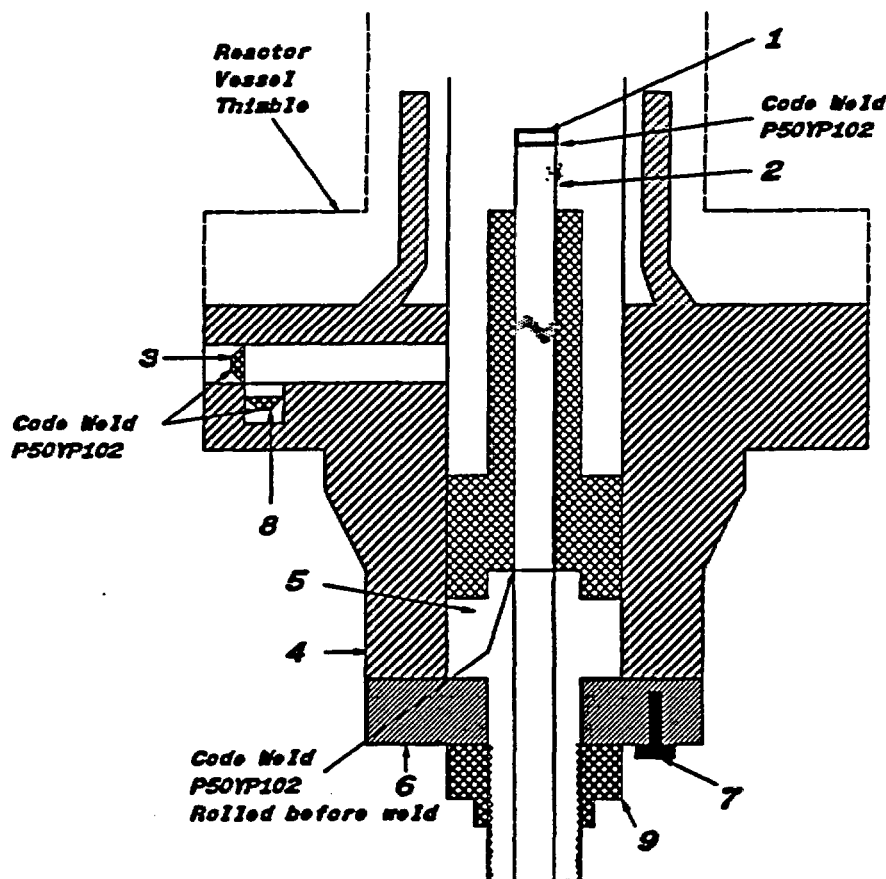
2 - List other internal or external pressure with coincident temperature when applicable.

WUT 01044800 15
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

- 6/12/03
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A8974 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D.L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III , Edition 1974 . Addenda Date W75 . Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
SA182 - F304
3/8" thick x 1 1/16" OD
2. Indicator Tube 166B9313P001
SA312 - TP316
3/4" sch 40 - seamless pipe
0.113" wall thickness
1.065" max. dia.
3. Plug 159A1176P001
SA182 - F304
1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)
SA182 - F304
3.37" thick x 9 5/8" OD
5. Base 137C5311P001
SA182 - F304
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002, P003
137C8151P001, P002
SA182 - F304
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002
SA193 - B6
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001
SA182 - F304
0.38" thick x 1.307" dia.
9. Nut 137C5934P001
XM - 19 SA479
1.30" thick x 2.62" dia.





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: 06/12/03

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

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

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: 1361-2

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD CRD	GE GE	6178 A9270	N/A N/A	N/A N/A	1975 1995	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 26-31. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No 6178.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No A9270.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No A9270 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No A9270.
 2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 6/12/03 Date 6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-18-03 to 7-1-03 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. Fort Commissions 748612/7486 N.E. NS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9270 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 1 of 2

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

Date: 06/27/95 Signed GE - NEBG - NF & CM - QA By [Signature]
(NPT Certificate Holder) (QC QA Representative)

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Blorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 6/27, 1995, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

Date 6/27, 1995 [Signature] NC 1231, Ohio, WC 3686 PA
Inspector's Signature National Board, State, Province And No.

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

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location (Top Bottom, Ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)
(a) _____
(b) _____
If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

8. Design pressure ² _____ 1250 _____ psi at _____ 575 _____ ° F at temp of _____ ° F
Drop Weight _____
Charpy Impact _____ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)
(a) Top, bottom, ends _____
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F
Drop Weight _____
Charpy Impact _____ ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached

17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

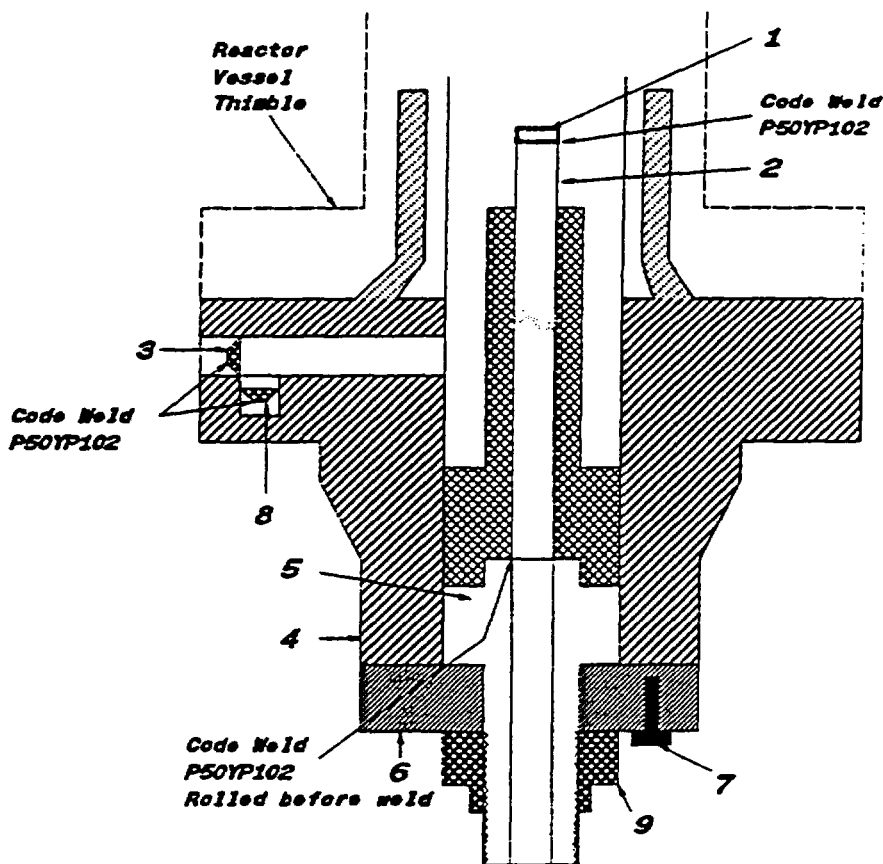
WOT 0104480071

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/M of Part : A9270 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
SA182 - F316
3/8" thick x 1 1/16" OD
2. Indicator Tube 167B4908P001
SA312 - TP316
3/4" sch 40 - seamless pipe
0.113" wall thickness
1.065" max. dia.
3. Plug 159A1176P001
SA182 - F304
1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)
SA182 - F304
3.37" thick x 9 5/8" OD
5. Head 129B3539P005
SA182 - F304
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002
SA182 - F304
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002
SA193 - B6
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001
SA182 - F304
0.38" thick x 1.307" dia.
9. Nut 114B5460P001
XM - 19 SA479
1.30" thick x 2.62" dia.





FORM 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: 06/12/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 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
CRD	GE	6389	N/A	N/A	1974	Replaced	Yes, Code Class 1
CRD	GE	6565	N/A	N/A	1974	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 34-03. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No 6389.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No 6565.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No 6565 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with no Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No 6565.
 2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/12/03 Date 6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-17-03 to 7-1-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions 74866/7486 NI NS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

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

As required by the Provisions of the ASME Code Rules

W07 01044 800 18

1. (a) Manufactured by General Electric Company, Castle Hayne Rd., Wilmington, N.C. ^{6/12/03}
(Name and address of Manufacturer of part)
- (b) Manufactured for General Electric Company, San Jose, California
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part 6565 Nat'l Bd. No. _____
- (a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson
- (b) Description of Part Inspected Control Rod Drive, Model #7RDB144 C1
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date None, Case No. _____ Class _____
3. Remarks: Standard part for use with Reactor. Hydrostatically tested at 1820 psi
(Brief description of service for which component was designed)
minimum

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

Date December 15, 1974 Signed GE, BWRSD - REM By A.E. Hill
(Manufacturer)

Certificate of Authorization Expires June 20, 1975 Certificate of Authorization No. NPT - 462

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd. Wilmington

Stress analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington

Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

CERTIFICATE OF SHOP INSPECTION

FOR INFORMATION ONLY

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this

Manufacturer's Partial Data Report on December 3, 1974, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

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

Date December 15, 1974

[Signature]
Inspector's Signature

Commissions NC 779, PA, WC 2160, Ohio
National Board, State, Province and No.

PROJECT NAME HANFORD 2
CUSTOMER ORDER NUMBER 3758-014
ITEM NUMBER 1

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (Conv. or Conc.)
(a)								
(b)								

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)7. Jacket Closure: _____
(Describe as edge and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)8. Design pressure² 1250 psi at 575 °F Drop Weight _____
Charpy Impact _____ ft-lb
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shells: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)12. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (Conv. or Conc.)
(a) Top, bottom, ends								
(b) Channel								

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)14. Design pressure² _____ psi at _____ °F Drop Weight _____
Charpy Impact _____ ft-lb
at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached

17. Inspection Manholes, No. _____ Size _____ Location _____

Openings: Handholes, No. _____ Size _____ Location _____

Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)¹ If Postweld Heat-Treated.² For vessels subjected to external pressure with ambient temperature when applicable.



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

1. Owner: Energy Northwest

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

Date: 06/12/03

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: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Summer 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
CRD	GE	7151	N/A	N/A	1975	Replaced	Yes, Code Class 1
CRD	GE	7166	N/A	N/A	1975	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 38-19. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No 7151.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No 7166.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No 7166 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Summer 1974 Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No 7166.
 2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/12/03 Date 6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-17-02 to 7-1-02 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions 74866/7486 in I ns
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-02

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

As required by the Provisions of the ASME Code Rules

WOT 01044800 01

1. (a) Manufactured by General Electric Company, Castle Hayne Rd., Wilmington, N.C.
(Name and address of Manufacturer of part)
- (b) Manufactured for General Electric Company, San Jose, California
(Name and address of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part 7156 Nat'l Bd. No. _____
- (a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson
- (b) Description of Part Inspected Control Rod Drive, Model #7RDB144 C1
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date S'74, Case No. _____ Class _____
3. Remarks: Standard part for use with Reactor. Hydrostatically tested at 1820 psi
(Brief description of service for which component was designed)
- minimum

FOR INFORMATION ONLY

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

Date January 13, 1975 Signed GE, BWRSD - REM By [Signature]
(Manufacturer)

Certificate of Authorization Expires June 20, 1975 Certificate of Authorization No. NPT - 462

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd. Wilmington

Stress analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington

Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on January 8, 1975, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

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

Date January 13, 1975

[Signature] Commissions NC 779, PA. WC 2160, Ohio
Inspector's Signature National Board, State, Province and No.

PROJECT NAME HANFORD 2
CUSTOMER ORDER NUMBER 3758-012

Items 4-8 Incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location _____ Thickness _____ Crown Radius _____ Knuckle Radius _____ Elliptical Ratio _____ Conical Apex Angle _____ Hemispherical Radius _____ Flat Diameter _____ Side to Press. (Conv. or Conc.)
(Top, bottom, ends)

(a) _____

(b) _____

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)7. Jacket Closure: _____
(Describe as edge and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)8. Design pressure² 1250 psi at 575 °F Drop Weight _____
Charpy Impact _____ ft-lb
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)12. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____13. Heads (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location _____ Thickness _____ Crown Radius _____ Knuckle Radius _____ Elliptical Ratio _____ Conical Apex Angle _____ Hemispherical Radius _____ Flat Diameter _____ Side to Press. (Conv. or Conc.)
(Top, bottom, ends)

(a) _____

(b) Channel _____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)14. Design pressure² _____ psi at _____ °F Drop Weight _____
Charpy Impact _____ ft-lb
at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached

17. Inspection Manholes, No. _____ Size _____ Location _____

Openings: Handholes, No. _____ Size _____ Location _____

Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)¹ If Postweld Heat-Treated.



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: 06/12/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

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

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: 1361-2

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	GE	A8591	N/A	N/A	1988	Replaced	Yes, Code Class 1
CRD	GE	A8552	N/A	N/A	1988	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 38-55. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No A8591.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No A8552.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) The replacement CRD assembly, Serial No A8552 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No A8552.
 2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
 Date 6/12/03 Date 6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-18-03 to 7-1-03 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 7486.14/74186 NIS MS
 Inspector's Signature National Board, State, and Endorsements

Date 7-1-03

W0T 01044800 82

Dwain Supt?

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. 1 6/17/03

1. Manufactured & Certified by: GE Company, 2117 Castle Bayne Rd., Wilmington, N.C. 28402
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for: WNP-2, RICHLAND, Wn. 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holders's S/N of Part: A8552 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: CYLINDER TUBE & FLANGE
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75 Case No. 1361-2 Class 1
3. REMARKS: Sub-assembly of Control Rod Drive for use with reactor.
(Brief description of service for which component was designed)
Hydrostatically tested at 1825 psi. min.

*Sheet 1 of 2

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

DATE: 12/31, 19 88 Signed GE-NEEG-NF&CM-QA By [Signature]
(NPT Certificate Holder)

Certificate Of Authorization Expires: 6/16/90 Certification of Authorization No.: NPT N-1151

CERTIFICATION OF DESIGN FOR APPURTENANCE

Design information on file at GE COMPANY, SAN JOSE, CALIFORNIA

Stress analysis report on file at GE COMPANY, SAN JOSE, CALIFORNIA

DC22A6253 Rev. 0

Design specification certified by: BJORN HAABERG Prof. Eng. State CALIF. Reg. No. 15570

DC22A6254 Rev. 0.

Stress analysis report certified by: EDWARD YOSHIO Prof. Eng. State CALIF. Reg. No. M018646

CERTIFICATION OF SHOP INSPECTION

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of NORTH CAROLINA and employed by DEPARTMENT OF LABOR of STATE OF NORTH CAROLINA have inspected the part of a pressure vessel described in this Partial Data Report on 12-31 1988, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

DATE 12-31, 1988 [Signature] NC 779, PA WC2L60, OHIO
Inspector's Signature National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" X 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS"

(10/77)

VERIFIED & ACCEPTED [Signature]

1-18-89
R.I. Inspector Date

FORM M-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

- Nominal Corrosion
4. Shell: Material _____ T.S. _____ Thickness _____ in. Allowance _____ in Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec.No.) (Min.of Range Specified)
5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %
Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____
6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location (Top Bottom, Ends) Thickness _____ Crown Radius _____ Knuckle Radius _____ Elliptical Ratio _____ Conical Apex Angle _____ Hemispherical Radius _____ Flat Diameter _____ Side to Press. (conv. or conc.)
(a) _____
(b) _____
If removable, bolts used _____ Other fastening _____
(Material, Spec.No., T.S. Size Number) (Describe or attach sketch)
7. Jacket Closures: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)
8. Design Pressure ² _____ 1250 _____ psi at _____ 575 _____ °F Drop Weight _____
Charpy Impact _____ ft-lb
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections.

9. Tube Sheets: Stationary Mat'l. _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind of Spec. No.) (Subj. to Press.) (Welded, Bolted)
Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____
inches
10. Tubes: Material _____ O.D. _____ in. Thickness _____ or gage. Number _____ Type _____
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers

- Nominal Corrosion
11. Shell: Material _____ T.S. _____ Thickness _____ in. Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec.No.) (Min. of Range Specified)
12. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %
Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____
13. Heads (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location _____ Crown Radius _____ Knuckle Radius _____ Elliptical Ratio _____ Conical Apex Angle _____ Hemispherical Radius _____ Flat Diameter _____ Side to Press. (Conv. or Conc.)
(a) Top, Bottom, Thickness _____
End _____
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other Fastening _____
(Describe or attach sketch)
Drop Weight _____
Charpy Impact _____ ft-lb
at temp. of _____ °F
14. Design pressure ² _____ psi at _____ °F at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____
16. Nozzles:
Purpose (Inlet Outlet, Drain) Number Dia or Size Type Material Thickness Reinforcement Material Attached

17. Inspection Openings: Manholes, No. _____ Size _____ Location _____
Handles, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____
18. Supports: Shirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

¹ If Postweld Heat-Treated.

² List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. I *Amirp Sur*

1. Manufactured & Certified by: GE Company, 2117 Castle Hayne Rd., Wilmington, N.C. 28402
 (Name and Address of NPT Certificate Holder)
- (b) Manufactured for: WNP-2, RICHLAND, Wa. 99352
 (Name and Address of N Certificate Holder for completed nuclear component)

6/12/03

2. Identification-Certificate Holders's S/N of Part: A8552 Nat'l Bd. N. N/A
- (a) Constructed According to Drawing No: 919D258G003 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: CYLINDER TUBE & FLANGE
- (C) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75, Case No. 1361-2 Class 1

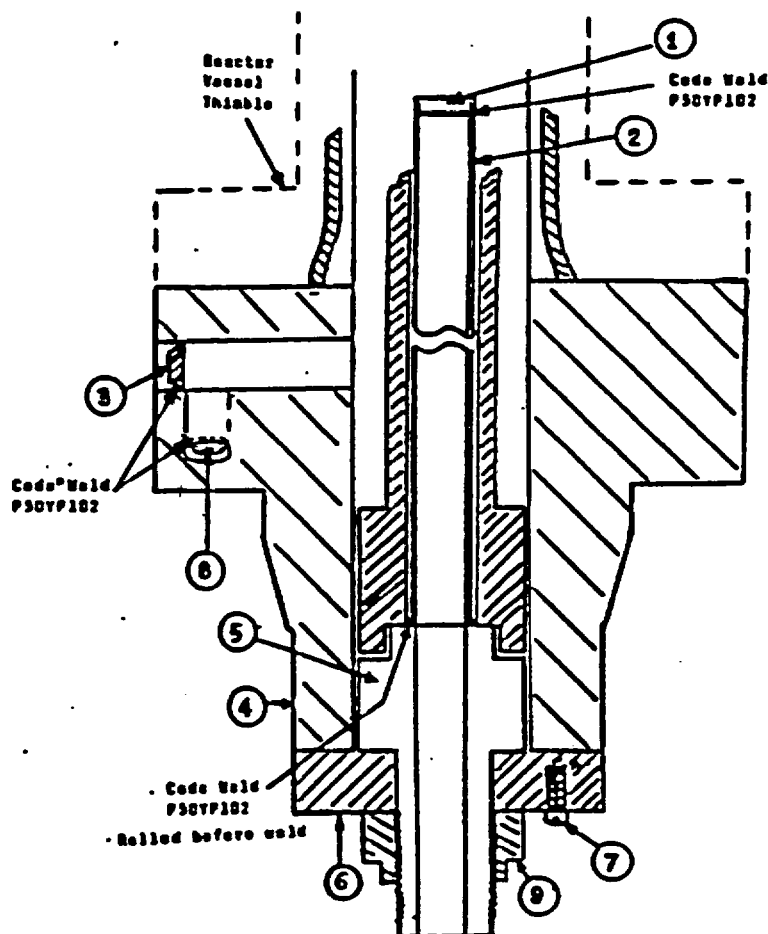
REMARKS: Sub-assembly of Control Rod Drive for use with reactor.

(Brief description of service for which component was designed)

Hydrostatically tested at 1825 psi. min.

*Sheet 2 of 2

1. Cap 167A2343P1
SA182-F304
3/8 thick x 1 1/16 OD
2. Indicator Tube 104B1336P3
SA312-TP316
3/4 sch 40-seamless pipe
0.113 wall thickness
1.065 max. dia.
3. Plug 159A1176P1
SA182-F304
1/4 thick x 0.812 OD
4. Flange 919D610P1 (719EA74)
SA182-F304
3.37 thick x 9 5/8 OD
5. Head 129B3539P3, P5
SA182-F304
7/8 thick x 2.875 Dia.
6. Ring Flange 114B5122P2
SA182-F304
1" thick x 5.0 OD x 1.75 ID
7. Cap Screw 117C4516P2
SA193-B6
6 ea. 1/2 dia. on 4 1/8 bolt circle
8. Plug 175A7961P1
SA182-F304
0.38 thick x 1.307 dia.
9. Nut 114B5460P1
SA193-B8A
1.30 thick x 2.62 dia.





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

1. Owner: Energy Northwest

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

Date: 06/12/03

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: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: 1361-1

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

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	GE	7034	N/A	N/A	1974	Replaced	Yes, Code Class 1
CRD	GE	7041	N/A	N/A	1975	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced Control Rod Drive (CRD) assembly at Core Location 46-27. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 "Control Rod Drive Removal And Replacement" as follows:

- 1) Removed all eight (8) existing cap screws from the CRD assembly bolted flanged connection.
- 2) Removed existing CRD assembly, Serial No 7034.
- 3) Performed VT-1 visual examination on all eight (8) new replacement cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement CRD assembly, Serial No 7041.
- 5) Installed eight (8) VT-1 visually examined new replacement cap screws for the CRD assembly bolted flanged connection.
- 6) Torqued the cap screws for the CRD assembly bolted flanged connection to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES-

- 1) The replacement CRD assembly, Serial No 7041 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda requirements.
- 2) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 184813, Heat Code No J144.
- 3) VT-1 visual examination Report No 2RPV-18 for the new replacement cap screws.



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

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure: 1030 Psig Test Temperature: 199.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: 1) See attached N-2 Code Data Report for the replacement CRD assembly, Serial No 7041.
 2) * Pressure test on the CRD bolted flanged connection - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test in accordance with PPM No OSP-RPV-R801 "Reactor Pressure Vessel Leakage Test".

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

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

Date 6/12/03 Date 6/12/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5-17-03 to 7-1-03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

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

Date 7-1-03

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

WD 7 01044800 0-1

As required by the Provisions of the ASME Code Rules

Quarip Supr

1. (a) Manufactured by General Electric Company, Castle Hayne Rd., Wilmington, N. C. 6/12/03
(Name and address of Manufacturer of part)

(b) Manufactured for General Electric Company, San Jose, California
(Name and address of Manufacturer of completed nuclear component)

2. Identification-Manufacturer's Serial No. of Part 7041 Nat'l Bd. No. _____

(a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson

(b) Description of Part Inspected Control Rod Drive, Model #7RDB144 C1

(c) Applicable ASME Code: Section III, Edition 1971, Addenda date None, Case No. 1361-i Class 1

3. Remarks: Standard part for use with Reactor. Hydrostatically tested at 1820 psi
(Brief description of service for which component was designed)
minimum.

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

Date July 31 19 75 Signed GE, BWRSD - REM By *[Signature]*
(Manufacturer)

Certificate of Authorization Expires June 20, 1978 Certificate of Authorization No. NPT - 462

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington

Stress analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington

Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina

have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on July 31 1975, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

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

Date July 31 19 75

E. L. Sherrill
Inspector's Signature

Commissions NC 723, PA. WC 1766, Ohio
National Board, State, Province and No.

1X00367631

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Top, bottom, ends) (Conv. or Conc.)

(a) _____

(b) _____

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)8. Design pressure² 1250 psi at 575°F Drop Weight _____
Charpy Impact _____ ft.-lb
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)12. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____13. Heads (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Conv. or Conc.)

(a) Top, bottom, ends _____

(b) Channel _____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)14. Design pressure² _____ psi at _____ °F Drop Weight _____
Charpy Impact _____ ft.-lb
at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles
Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)¹ If Postweld Heat-Treated.² List other internal or external pressure with coincident temperature when applicable.

ZX00367632



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:** 08/19/03
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:** Control Rod Drive (CRD) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: 1361-1
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	GE	5399	N/A	N/A	1974	-----	Yes, Code Class 1

7. Description Of Work Performed: Replaced parts for Control Rod Drive (CRD) assembly Serial No 5399 at Core Location 58-31. The replacement work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Removed all six (6) existing ring flange cap screws from the CRD assembly.
- 2) Removed existing ring flange from the CRD assembly.
- 3) Performed VT-1 visual examination on all six (6) new replacement ring flange cap screws. VT-1 visual examination results acceptable.
- 4) Installed replacement ring flange cap screw.
- 5) Installed six (6) VT-1 visually examined new replacement ring flange cap screws for the CRD assembly.
- 6) Torqued the ring flange cap screws for the CRD assembly to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on CRD assembly bolted flanged connection to confirm pressure boundary integrity of the joint. No leakage was observed during pressure test.

NOTES -

- 1) VT-1 visual examination Report No 4-01-2-1 for the new replacement ring flange cap screws.



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

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

Test Pressure: 1030 Psig

Test Temperature: 199.8° F

Component Design Pressure: 1250 Psig

Temperature: 575° F

9. Remarks: 1) * Pressure test on the CRD assembly - Test pressure of 1030 Psig and test temperature of 199.8° F recorded during ASME Section XI pressure test 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 8/19/03

Date 8/19/03

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 Hartford Steam Boiler Of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 8-21-03 to 8/19/03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature]
Inspector's Signature

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

Date 8-19-03



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

1. Owner: Energy Northwest

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

Date: 01/02/03

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

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

Unit: Not Applicable

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,
Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	6108	N/A	N/A	1974	-----	Yes, Code Class 1
Piston Tube	General Electric	5358	N/A	N/A	1974	Replaced	Yes, Code Class 1
Piston Tube	General Electric	0865	N/A	N/A	1994	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6108. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
- 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 6108. Liquid penetrant (PT) examination results acceptable.
- 3) Performed visual examination on the existing Piston Tube assembly Serial No 5358. Visual examination results unacceptable (pitting).
- 4) Installed replacement Piston Tube assembly Serial No 0865.
- 5) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 6) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 7) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 0865.
- 2) The existing Piston Tube assembly Serial No 5358 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 3) The replacement Piston Tube assembly Serial No 0865 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 6108. The Cylinder Tube And Flange (CT&F) Serial No 6108 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.



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 Piston Tube assembly Serial No 0865.

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 1/7/03 Date 1/7/03

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 11/20/02 to 02/21/03 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 N I NS
 Inspector's Signature National Board, State, and Endorsements

Date 02/20/03

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

- Ready Bunch*
1/11/03
- Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
 - Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
 - Identification - Certificate Holder's S/N of Part : 0865 Nat'l Bd. No. N/A
 - Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D.L. Peterson
 - Description of Part Inspected: Piston Tube Assembly
 - Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. 1361-2 Class 1
 - REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).

Date: 01/19/94Signed GE - NEBG - NF & CM - QA
(NPT Certificate Holder)By [Signature]
(QA Representative)Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPTN-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, CaliforniaStress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 1/5, 1994, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

Date 1/20, 1994[Signature]
Inspector's SignatureNC 1231, Ohio, WC 3686 PA
National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location (Top Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.
Bottom, Ends) Thickness Radius Radius Ratio Apex Angle Radius Diameter (conv. or conc.)
(a) _____
(b) _____
If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as gage and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

8. Design pressure ² _____ 1250 _____ psi at _____ 575 _____ ° F at temp of _____ ° F
Drop Weight _____
Charpy Impact _____ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(St. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(a) Top, bottom, ends _____
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F
Drop Weight _____
Charpy Impact _____ ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached

17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

WDT No 01044801 05

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401

(Name and Address of NPT Certificate Holder)

Quidip Sup's
11/1/03

(b) Manufactured for : WNP 2 Richland, Washington 99352

(Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : 0865 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75, Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psf. min.

(Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
SA182 - TP316
3/8" thick x 1 1/16" OD

2. Indicator Tube 167B4908P001
SA312 - TP316
3/4" sch 40 - seamless pipe
0.113" wall thickness
1.065" max. dia.

3. Plug 159A1176P001
SA182 - F304
1/4" thick x 0.812" OD

4. Flange 919D610P001 (719E474)
SA182 - F304
3.37" thick x 9 5/8" OD

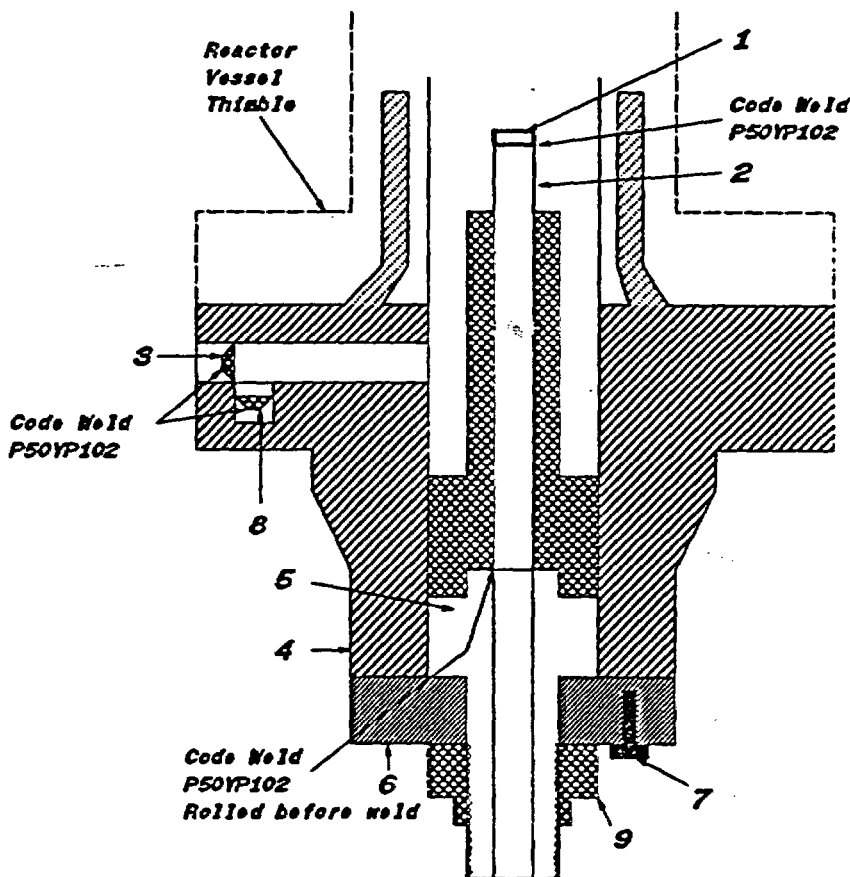
5. Head 129B3539P005
SA182 - F304
7/8" thick x 2.875" dia.

6. Ring Flange 114B5122P002
SA182 - F304
1" thick x 5.0" OD x 1.75" ID

7. Cap Screw 117C4516P002
SA193 - B6
6 ea. 1/2" dia. on 4 1/8" bolt circle

8. Plug 175A7961P001
SA182 - F304
0.38" thick x 1.307" dia.

9. Nut 114B5460P001
XM - 19 SA479
1.30" thick x 2.62" dia.





FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

Date: 01/02/03

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	6660	N/A	N/A	1975	-----	Yes, Code Class 1
CT&F	General Electric	6660	N/A	N/A	1975	Replaced	Yes, Code Class 1
CT&F	General Electric	A9270	N/A	N/A	1995	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6660. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
- 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 6660. Liquid penetrant (PT) examination results unacceptable.
- 3) Installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9270.
- 4) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 5) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 6) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES-

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9270.
- 2) The existing Cylinder Tube And Flange (CT&F) assembly Serial No 6660 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 3) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9270 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9270. The Cylinder Tube And Flange (CT&F) Serial No A9270 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.



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 Cylinder Tube And Flange (CT&F) assembly Serial No A9270.

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 1/7/03 Date 1/7/03

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 11/20/02 to 2/21/03 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 748610 IN NS
 Inspector's Signature National Board, State, and Endorsements

Date 2/21/03

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

- 1/7/82
Quay
- Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
 - (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
 - Identification - Certificate Holder's S/N of Part : A9270 Nat'l Bd. No. N/A
 - Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
 - Description of Part Inspected: Cylinder Tube & Flange
 - Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
 - REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).

Date: 06/27/95 Signed GE - NEBG - NF & CM - QA By [Signature]
(NPT Certificate Holder) (EC QA Representative)

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPTN-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Blom Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 6/27, 1995 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

Date 6/27, 1995 [Signature] NC 1231, Ohio, WC 3686 PA
Inspector's Signature National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
 Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location (Top Bottom, Ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) _____	_____	_____	_____	_____	_____	_____	_____	_____
(b) _____	_____	_____	_____	_____	_____	_____	_____	_____

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

Drop Weight _____
 Charpy Impact _____ ft-lb

8. Design pressure ² _____ 1250 psi at _____ 575 ° F at temp of _____ ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
 Girth _____ H.T. _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) Top, bottom, ends	_____	_____	_____	_____	_____	_____	_____	_____
(b) Channel	_____	_____	_____	_____	_____	_____	_____	_____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)

Drop Weight _____
 Charpy Impact _____ ft-lb

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles: Purpose (Inlet, Outlet, Drain) _____ Number _____ Dia. or Size _____ Type _____ Material _____ Thickness _____ Reinforcement Material _____ How Attached _____

17. Inspection Manholes, No. _____ Size _____ Location _____
 Openings: Handholes, No. _____ Size _____ Location _____
 Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - # Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
 As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
 (Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9270 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
 (Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
 SA182 - F316
 3/8" thick x 1 1/16" OD

2. Indicator Tube 167B4908P001
 SA312 - TP316
 3/4" sch 40 - seamless pipe
 0.113" wall thickness
 1.065" max. dia.

3. Plug 159A1176P001
 SA182 - F304
 1/4" thick x 0.812" OD

4. Flange 919D610P001 (719E474)
 SA182 - F304
 3.37" thick x 9 5/8" OD

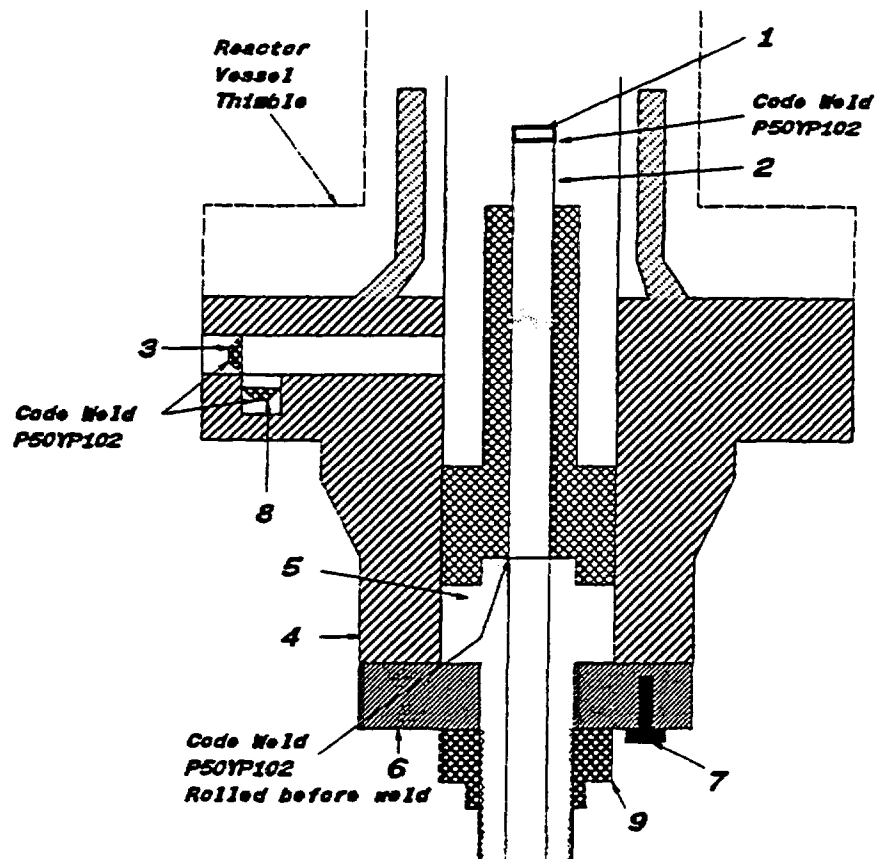
5. Head 129B3539P005
 SA182 - F304
 7/8" thick x 2.875" dia.

6. Ring Flange 114B5122P002
 SA182 - F304
 1" thick x 5.0" OD x 1.75" ID

7. Cap Screw 117C4516P002
 SA193 - B6
 6 ea. 1/2" dia. on 4 1/8" bolt circle

8. Plug 175A7961P001
 SA182 - F304
 0.38" thick x 1.307" dia.

9. Nut 114B5460P001
 XM - 19 SA479
 1.30" thick x 2.62" dia.





FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	7053	N/A	N/A	1975	-----	Yes, Code Class 1
CT&F	General Electric	7053	N/A	N/A	1975	Replaced	Yes, Code Class 1
CT&F	General Electric	A9322	N/A	N/A	1993	Replacement	Yes, Code Class 1
Piston Tube	General Electric	5723	N/A	N/A	1975	Replaced	Yes, Code Class 1
Piston Tube	General Electric	0914	N/A	N/A	1995	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7053. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
- 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 7053. Liquid penetrant (PT) examination results unacceptable.
- 3) Installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9322.
- 4) Performed visual examination on the existing Piston Tube assembly Serial No 5723. Visual examination results unacceptable (pitting).
- 5) Installed replacement Piston Tube assembly Serial No 0914.
- 6) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 7) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 8) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9322.
- 2) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 0914.
- 3) The existing Cylinder Tube And Flange (CT&F) assembly Serial No 7053 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 4) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9322 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 5) The existing Piston Tube assembly Serial No 5723 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 6) The replacement Piston Tube assembly Serial No 0914 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 7) The entire Control Rod Drive (CRD) assembly is now identified by the replacement Cylinder Tube And Flange (CT&F) Serial No A9322.



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 Reports for the following replacement parts:

Cylinder Tube And Flange (CT&F) assembly Serial No A9322.
 Piston Tube assembly Serial No 0914.

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 1/7/03 Date 1/7/03

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 11/26/02 to 2/11/03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 74866 N.E.N.S.
 Inspector's Signature National Board, State, and Endorsements

Date 2/11/03

WOT No. 01044801 35

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

- 17/03
H. J. Smith
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9322 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D.L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).

Date: 01/28/93 Signed GE - NEBG - NF & CM - QA By [Signature]
(NPT Certificate Holder) (SC QA Representative)

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 1/28, 1993, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

1/28, 1993 George P. Evans
Date Inspector's Signature

NC 1231, Ohio, WC 3686 PA
National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

(07/88)

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location (Top Bottom, Ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)
(a) _____
(b) _____
If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

8. Design pressure ² _____ 1250 _____ psi at _____ 575 _____ ° F at temp of _____ ° F
Drop Weight _____
Charpy Impact _____ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Std. or U)

Items 11 - 14 Incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)
(a) Top, bottom, ends _____
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F
Drop Weight _____
Charpy Impact _____ ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached

17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. I

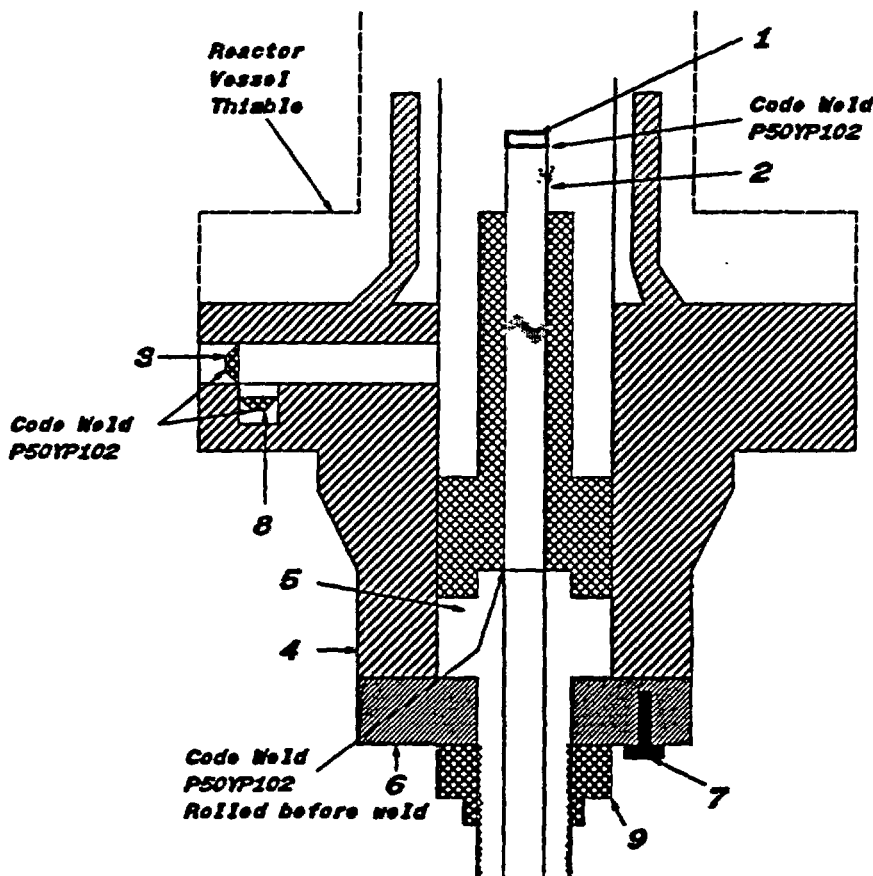
WOT NO. 01044801 35

Richland Supply

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
 (Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9322 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D.L. Peterson
 - (b) Description of Part Inspected: Cylinder Tube & Flange
 - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
 (Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
 SA182 - F304
 3/8" thick x 1 1/16" OD
2. Indicator Tube 166B9313P001
 SA312 - TP316
 3/4" sch 40 - seamless pipe
 0.113" wall thickness
 1.065" max. dia.
3. Plug 159A1176P001
 SA182 - F304
 1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)
 SA182 - F304
 3.37" thick x 9 5/8" OD
5. Base 137C5311P001
 SA182 - F304
 7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002, P003
 137C8151P001, P002
 SA182 - F304
 1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002
 SA193 - B6
 6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001
 SA182 - F304
 0.38" thick x 1.307" dia.
9. Nut 137C5934P001
 XM - 19 SA479
 1.30" thick x 2.62" dia.



FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
 As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
 (Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : 0914 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Piston Tube Assembly
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
 (Brief description of service for which component was designed)

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).

Date: 06/27/95 Signed GE - NEBG - NF & CM - QA By [Signature]
 (NPT Certificate Holder) (QC QA Representative)

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPTN - 1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1
 Design specification certified by Blorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1
 Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 7/13, 1994 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

6/27, 1995 [Signature]
 Date Inspector's Signature

NC 1231, Ohio, WC 3686 PA
 National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)
5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____
6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location (Top Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.
Bottom, Ends) Thickness Radius Radius Ratio Apex Angle Radius Diameter (conv. or conc.)
(a) _____
(b) _____
If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)
7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)
Drop Weight _____
Charpy Impact _____ ft-lb
8. Design pressure ² _____ 1250 psi at _____ 575 ° F at temp of _____ ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____
10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)
12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____
13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.
(a) Top, bottom, ends _____ Radius Radius Ratio Apex Angle Radius Diameter (conv. or conc.)
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)
Drop Weight _____
Charpy Impact _____ ft-lb
14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____
16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached

17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____
18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

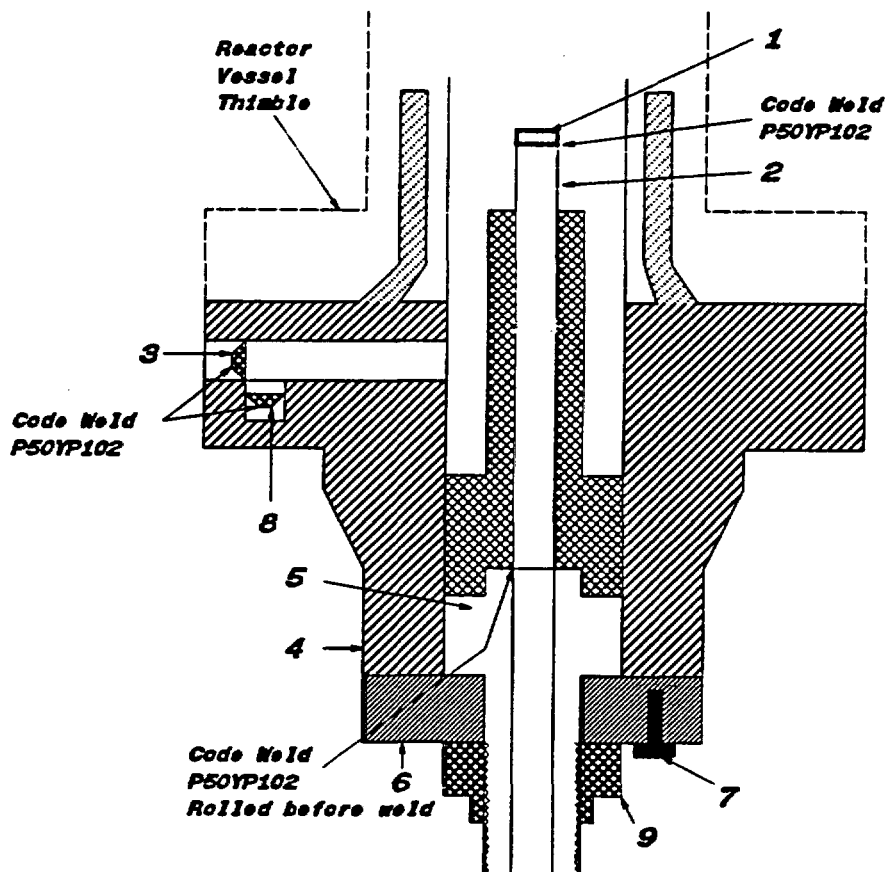
2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
 As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
 (Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : 0914 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Piston Tube Assembly
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75, Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
 (Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
SA182 - F316
3/8" thick x 1 1/16" OD
2. Indicator Tube 167B4908P001
SA312 - TP316
3/4" sch 40 - seamless pipe
0.113" wall thickness
1.065" max. dia.
3. Plug 159A1176P001
SA182 - F304
1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)
SA182 - F304
3.37" thick x 9 5/8" OD
5. Head 129B3539P005
SA182 - F304
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002
SA182 - F304
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002
SA193 - B6
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001
SA182 - F304
0.38" thick x 1.307" dia.
9. Nut 114B5460P001
XM - 19 SA479
1.30" thick x 2.62" dia.





FORM 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:** 01/02/03
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:** Control Rod Drive (CRD)
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	6706	N/A	N/A	1975	-----	Yes, Code Class 1
CT&F	General Electric	6706	N/A	N/A	1975	Replaced	Yes, Code Class 1
CT&F	General Electric	A8974	N/A	N/A	1993	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6706. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
- 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 6706. Liquid penetrant (PT) examination results unacceptable.
- 3) Installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No A8974.
- 4) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 5) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 6) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A8974.
- 2) The existing Cylinder Tube And Flange (CT&F) assembly Serial No 6706 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 3) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No A8974 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A8974. The Cylinder Tube And Flange (CT&F) Serial No A8974 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.



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 Cylinder Tube And Flange (CT&F) assembly Serial No A8974.

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 1/7/03 Date 1/7/03

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 11/20/02 to 2/21/03 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. Finto Commissions 748612 NE NS
 Inspector's Signature National Board, State, and Endorsements

Date 2/21/03

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A8974 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).

Date: 01/28/93Signed GE-NEBG-NF & CM-OA
(NPT Certificate Holder)By [Signature]
(SC QA Representative)Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, CaliforniaStress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Blom Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 126, 1993 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

Date

1/28, 1993

Inspector's Signature

Jeanne P. Emerson

National Board, State, Province And No.

NC 1231, Ohio, WC 3686 PA

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

(87/90)

FORM N-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location (Top Bottom, Ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)
(a) _____
(b) _____
If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

8. Design pressure ² _____ 1250 psi at _____ 575 ° F at temp of _____ ° F
Drop Weight Charpy Impact _____ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)
(a) Top, bottom, ends _____
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F
Drop Weight Charpy Impact _____ ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

Nozzles: Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

17. Inspection Openings: Manholes, No. _____ Size _____ Location _____
Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

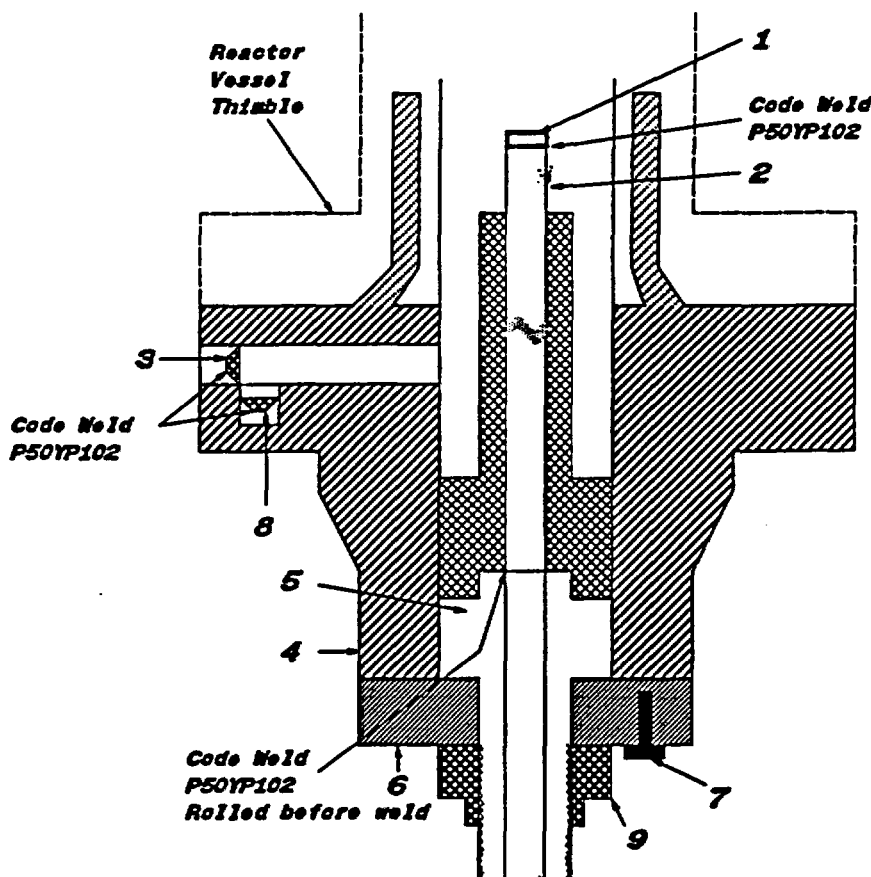
WOT No. 0104480136

D. L. Peterson

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A8974 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: Cylinder Tube & Flange
 - (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
SA182 - F304
3/8" thick x 1 1/16" OD
2. Indicator Tube 166B9313P001
SA312 - TP316
3/4" sch 40 - seamless pipe
0.113" wall thickness
1.065" max. dia.
3. Plug 159A1176P001
SA182 - F304
1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)
SA182 - F304
3.37" thick x 9 5/8" OD
5. Base 137C5311P001
SA182 - F304
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002, P003
137C8151P001, P002
SA182 - F304
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002
SA193 - B6
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001
SA182 - F304
0.38" thick x 1.307" dia.
9. Nut 137C5934P001
XM - 19 SA479
1.30" thick x 2.62" dia.





FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	6503	N/A	N/A	1975	-----	Yes, Code Class 1
CT&F	General Electric	6503	N/A	N/A	1975	Replaced	Yes, Code Class 1
CT&F	General Electric	A9343	N/A	N/A	1993	Replacement	Yes, Code Class 1
Piston Tube	General Electric	5429	N/A	N/A	1975	Replaced	Yes, Code Class 1
Piston Tube	General Electric	0843	N/A	N/A	1994	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6503. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
- 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 6503. Liquid penetrant (PT) examination results unacceptable.
- 3) Installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9343.
- 4) Performed visual examination on the existing Piston Tube assembly Serial No 5429. Visual examination results unacceptable (pitting).
- 5) Installed replacement Piston Tube assembly Serial No 0843.
- 6) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 7) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 8) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9343.
- 2) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 0843.
- 3) The existing Cylinder Tube And Flange (CT&F) assembly Serial No 6503 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 4) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9343 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 5) The existing Piston Tube assembly Serial No 5429 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 6) The replacement Piston Tube assembly Serial No 0843 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 7) The entire Control Rod Drive (CRD) assembly is now identified by the replacement Cylinder Tube And Flange (CT&F) Serial No A9343.



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 Reports for the following replacement parts:

Cylinder Tube And Flange (CT&F) assembly Serial No A9343.
 Piston Tube assembly Serial No 0843.

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 1/7/03 Date 1/7/03

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 1/20/02 to 2/21/03 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 748610 NI NS
 Inspector's Signature National Board, State, and Endorsements

Date 2/21/03

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9343 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).

Date: 01/28/93Signed GE - NEBG - NF & CM - QA
(NPT Certificate Holder)By [Signature]
(SC QA Representative)Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPTN-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, CaliforniaStress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Blom Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 1/26, 1993 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

Date

1/28, 1993

Inspector's Signature

[Signature]

National Board, State, Province And No.

NC 1231, Ohio, WC 3686 PA

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
 Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location (Top Bottom, Ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) _____	_____	_____	_____	_____	_____	_____	_____	_____
(b) _____	_____	_____	_____	_____	_____	_____	_____	_____

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

Drop Weight _____
 Charpy Impact _____ ft-lb

8. Design pressure ² _____ 1250 _____ psi at _____ 575 _____ ° F at temp of _____ ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
 Girth _____ H.T. _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) Top, bottom, ends	_____	_____	_____	_____	_____	_____	_____	_____
(b) Channel	_____	_____	_____	_____	_____	_____	_____	_____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)

Drop Weight _____
 Charpy Impact _____ ft-lb

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles: Purpose (Inlet, Outlet, Drain) _____ Number _____ Dia. or Size _____ Type _____ Material _____ Thickness _____ Reinforcement Material _____ How Attached _____

17. Inspection Manholes, No. _____ Size _____ Location _____
 Openings: Handholes, No. _____ Size _____ Location _____
 Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

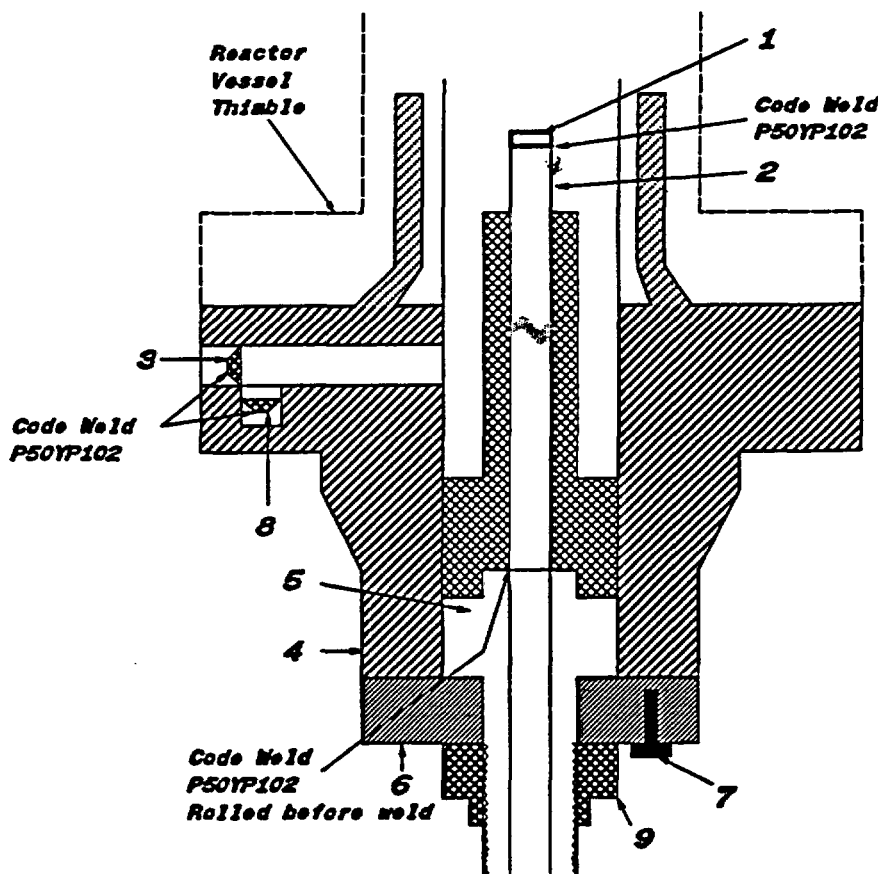
2 - List other internal or external pressure with coincident temperature when applicable.

WOT No. 01044801 40
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
 As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
 (Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9343 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
 (Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
 SA182 - F304
 3/8" thick x 1 1/16" OD
2. Indicator Tube 166B9313P001
 SA312 - TP316
 3/4" sch 40 - seamless pipe
 0.113" wall thickness
 1.065" max. dia.
3. Plug 159A1176P001
 SA182 - F304
 1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)
 SA182 - F304
 3.37" thick x 9 5/8" OD
5. Base 137C5311P001
 SA182 - F304
 7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002, P003
 137C8151P001, P002
 SA182 - F304
 1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002
 SA193 - B6
 6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001
 SA182 - F304
 0.38" thick x 1.307" dia.
9. Nut 137C5934P001
 XM - 19 SA479
 1.30" thick x 2.62" dia.



FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
 As required by the Provision of the ASME Code Rules, Section III, Div. I

- 1/7/83
Quayle Sup
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
 (Name and Address of NPT Certificate Holder)
 - (b) Manufactured for : WNP 2 Richland, Washington 99352
 (Name and Address of N Certificate Holder for completed nuclear component)
 2. Identification - Certificate Holder's S/N of Part : 0843 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: Piston Tube Assembly
 - (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. 1361-2 Class 1
 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
 (Brief description of service for which component was designed)

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).

Date: 01/19/94Signed GE - NEBG - NF & CM - QA
(NPT Certificate Holder)By [Signature]
(SC OR Representative)Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPTN-1151
Certification of Design for Appurtenance
Design information on file at GE Company, San Jose, CaliforniaStress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646
Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 1/5, 1994 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

1/20, 1994
Date[Signature]
Inspector's SignatureNC 1231, Ohio, WC 3686 PA
National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

	Location (Top Bottom, Ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a)	_____	_____	_____	_____	_____	_____	_____	_____	_____
(b)	_____	_____	_____	_____	_____	_____	_____	_____	_____

If removable, bolts used _____ (Material, Spec. No., T.S. Size Number) Other fastening _____ (Describe or attach sketch)

7. Jacket Closure: _____ (Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

8. Design pressure ² _____ 1250 _____ psi at _____ 575 _____ ° F at temp of _____ ° F
Drop Weight _____
Charpy Impact _____ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

	Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) Top, bottom, ends	_____	_____	_____	_____	_____	_____	_____	_____	_____
(b) Channel	_____	_____	_____	_____	_____	_____	_____	_____	_____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____ (Describe or attach sketch)

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F
Drop Weight _____
Charpy Impact _____ ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

Nozzles: Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

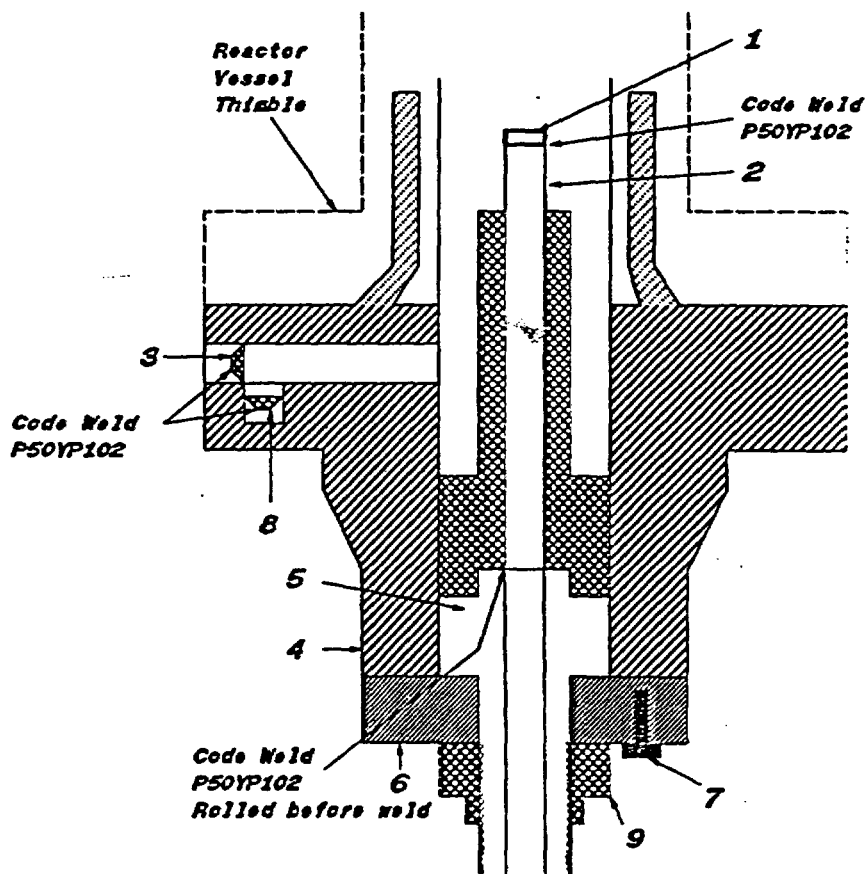
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

WOT No. 01044801 40

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder) David S. S. 5
11/1/03
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : 0843 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: Piston Tube Assembly
 - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
SA182 - TP316
3/8" thick x 1 1/16" OD
2. Indicator Tube 167B4908P001
SA312 - TP316
3/4" sch 40 - seamless pipe
0.113" wall thickness
1.065" max. dia.
3. Plug 159A1176P001
SA182 - F304
1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)
SA182 - F304
3.37" thick x 9 5/8" OD
5. Head 129B3539P005
SA182 - F304
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002
SA182 - F304
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002
SA193 - B6
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001
SA182 - F304
0.38" thick x 1.307" dia.
9. Nut 114B5460P001
XM - 19 SA479
1.30" thick x 2.62" dia.





FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

Date: 01/02/03

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,
Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	4835	N/A	N/A	1974	-----	Yes, Code Class 1
CT&F	General Electric	4835	N/A	N/A	1974	Replaced	Yes, Code Class 1
CT&F	General Electric	A9264	N/A	N/A	1995	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 4835. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
- 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 4835. Liquid penetrant (PT) examination results unacceptable.
- 3) Installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9264.
- 4) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 5) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 6) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9264.
- 2) The existing Cylinder Tube And Flange (CT&F) assembly Serial No 4835 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 3) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9264 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9264. The Cylinder Tube And Flange (CT&F) Serial No A9264 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.



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 Cylinder Tube And Flange (CT&F) assembly Serial No A9264.

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 1/7/03 Date 1/7/03

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 11/20/02 to 2/21/03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions 74866 N.E. NIS
 Inspector's Signature National Board, State, and Endorsements

Date 2/24/03

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
 (Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9264 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 19 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
 (Brief description of service for which component was designed)

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).

Date: 06/27/95 Signed GE-NEBG-NF & CM-QA By [Signature]
 (NPT Certificate Holder) (SC QA Representative)

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1
 Design specification certified by Blom Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1
 Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 6/27, 1995, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

Date

6/27, 1995

Inspector's Signature

James P. Evans

NC 1231, Ohio, WC 3686 PA
 National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location (Top Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.
Bottom, Ends) Thickness Radius Radius Ratio Apex Angle Radius Diameter (conv. or conc.)
(a) _____
(b) _____
If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

Drop Weight _____
Charpy Impact _____ ft-lb

8. Design pressure ² _____ 1250 psi at _____ 575 ° F at temp of _____ ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.
(a) Top, bottom, ends _____ Radius Radius Ratio Apex Angle Radius Diameter (conv. or conc.)
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)

Drop Weight _____
Charpy Impact _____ ft-lb

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles: Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

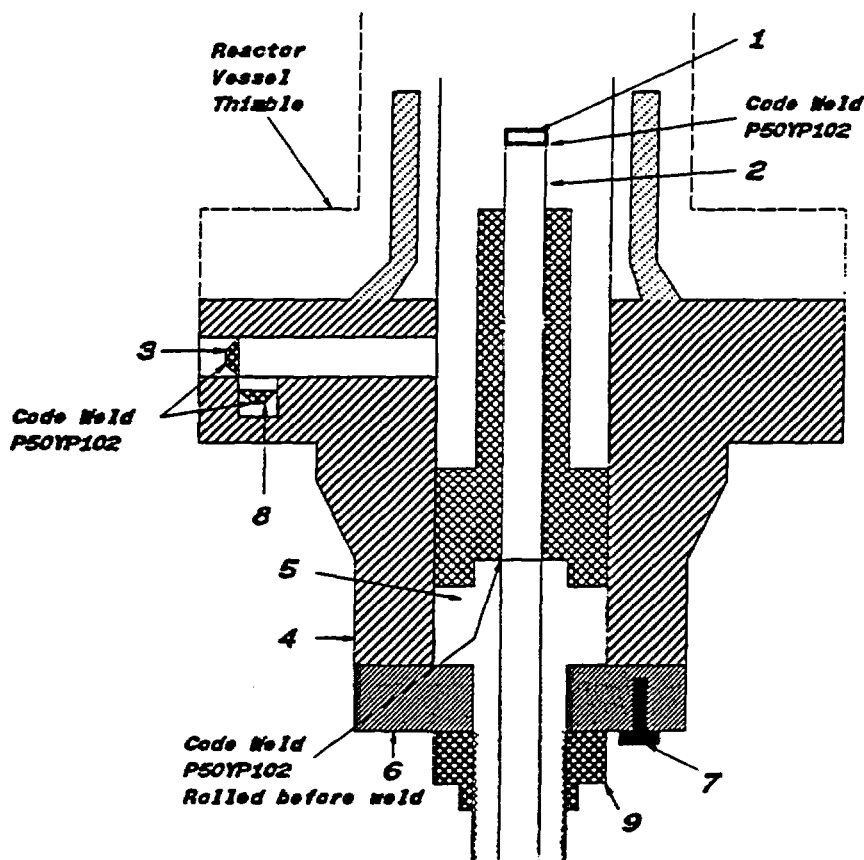
WOT No. 01044801 41

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
 As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
 (Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9264 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 919D258G003 Rev 19 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Cylinder Tube & Flange
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
 (Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
SA182 - F316
3/8" thick x 1 1/16" OD
2. Indicator Tube 167B4908P001
SA312 - TP316
3/4" sch 40 - seamless pipe
0.113" wall thickness
1.065" max. dia.
3. Plug 159A1176P001
SA182 - F304
1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)
SA182 - F304
3.37" thick x 9 5/8" OD
5. Head 129B3539P005
SA182 - F304
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002
SA182 - F304
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002
SA193 - B6
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001
SA182 - F304
0.38" thick x 1.307" dia.
9. Nut 114B5460P001
XM - 19 SA479
1.30" thick x 2.62" dia.





FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	7166	N/A	N/A	1974	-----	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7166. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
- 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 7166. Liquid penetrant (PT) examination results acceptable.
- 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 5) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No 7166.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 7166. The Control Rod Drive (CRD) assembly Serial No 7166 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Summer 1974 Addenda.



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒
 Test Pressure: Psig Test Temperature: °F
 Component Design Pressure: Psig Temperature: °F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE)

Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE)

Date 1/7/03

Date 1/7/03

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 11/2/02 to 2/2/03 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. Smith
 Inspector's Signature

Commissions 748612 NIS NS
 National Board, State, and Endorsements

Date 2/2/03



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:** 01/02/03
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:** Control Rod Drive (CRD)
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	6552	N/A	N/A	1975	-----	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6552. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
- 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 6552. Liquid penetrant (PT) examination results acceptable.
- 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 5) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No 6552.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 6552. The Control Rod Drive (CRD) assembly Serial No 6552 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒
 Test Pressure: Psig Test Temperature: °F
 Component Design Pressure: Psig Temperature: °F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 1/7/03 Date 1/7/03

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 11/20/02 to 2/24/03 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. East Commissions 7486 W N E NS
 Inspector's Signature National Board, State, and Endorsements

Date 2/24/03



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:** 01/02/03
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: Control Rod Drive (CRD)
5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	7041	N/A	N/A	1975	-----	Yes, Code Class 1
Piston Tube	General Electric	5785	N/A	N/A	1975	Replaced	Yes, Code Class 1
Piston Tube	General Electric	0867	N/A	N/A	1994	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7041. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
- 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 7041. Liquid penetrant (PT) examination results acceptable.
- 3) Performed visual examination on the existing Piston Tube assembly Serial No 5785. Visual examination results unacceptable (pitting).
- 4) Installed replacement Piston Tube assembly Serial No 0867.
- 5) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 6) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 7) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 0867.
- 2) The existing Piston Tube assembly Serial No 5785 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 3) The replacement Piston Tube assembly Serial No 0867 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 7041. The Cylinder Tube And Flange (CT&F) Serial No 7041 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.



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 Piston Tube assembly Serial No 0867.

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 1/21/03 Date 1/21/03

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 11/20/02 to 2/21/03 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. [Signature] Commissions 7486 W N.I. ns
 Inspector's Signature National Board, State, and Endorsements

Date 2/21/03

W07 No. 01044801 48

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : 0867 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
- (b) Description of Part Inspected: Piston Tube Assembly
- (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).

Date: 01/19/94

Signed GE - NEBG - NF & CM - QA
(NPT Certificate Holder)

By [Signature]
(SC QA Representative)

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1

Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1

Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 1/5, 1994 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

1/20, 1994
Date

[Signature]
Inspector's Signature

NC 1231, Ohio, WC 3686 PA
National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location (Top Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.
Bottom, Ends) Thickness Radius Radius Ratio Apex Angle Radius Diameter (conv. or conc.)
(a) _____
(b) _____
If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

8. Design pressure ² _____ 1250 psi at _____ 575 ° F at temp of _____ ° F
Drop Weight _____
Charpy Impact _____ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11 - 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.
(a) Top, bottom, ends _____ Radius Radius Ratio Apex Angle Radius Diameter (conv. or conc.)
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F
Drop Weight _____
Charpy Impact _____ ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles: Purpose (Inlet, Outlet, Drain) Number Dia. or Size Type Material Thickness Reinforcement Material How Attached

17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

1 - If Postweld Heat-Treated.

2 - List other internal or external pressure with coincident temperature when applicable.

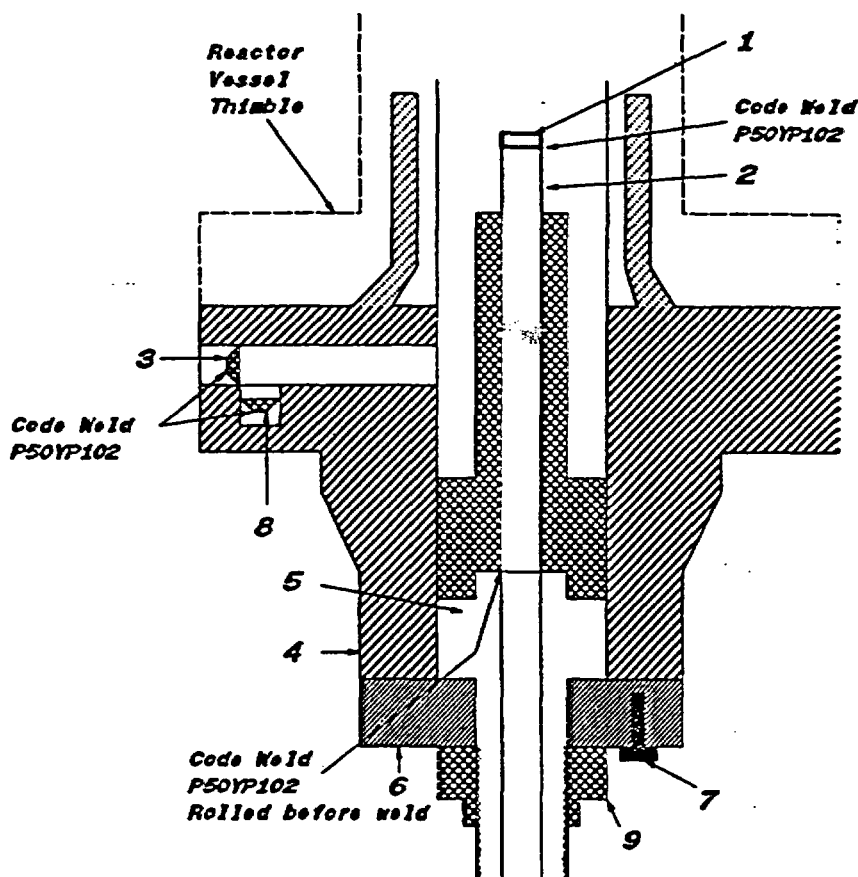
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

W07 01044801 48

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder) Quelip Sup's
11/7/03
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : 0867 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: Piston Tube Assembly
 - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001
SA182 - TP316
3/8" thick x 1 1/16" OD
2. Indicator Tube 167B4908P001
SA312 - TP316
3/4" sch 40 - seamless pipe
0.113" wall thickness
1.065" max. dia.
3. Plug 159A1176P001
SA182 - F304
1/4" thick x 0.812" OD
4. Flange 919D610P001 (719E474)
SA182 - F304
3.37" thick x 9 5/8" OD
5. Head 129B3539P005
SA182 - F304
7/8" thick x 2.875" dia.
6. Ring Flange 114B5122P002
SA182 - F304
1" thick x 5.0" OD x 1.75" ID
7. Cap Screw 117C4516P002
SA193 - B6
6 ea. 1/2" dia. on 4 1/8" bolt circle
8. Plug 175A7961P001
SA182 - F304
0.38" thick x 1.307" dia.
9. Nut 114B5460P001
XM - 19 SA479
1.30" thick x 2.62" dia.





FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	6565	N/A	N/A	1974	-----	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6565. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
- 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 6565. Liquid penetrant (PT) examination results acceptable.
- 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 5) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES-

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No 6565.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 6565. The Control Rod Drive (CRD) assembly Serial No 6565 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with no Addenda.



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒
 Test Pressure: Psig Test Temperature: °F
 Component Design Pressure: Psig Temperature: °F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 1/7/03 Date 1/7/03

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 11/20/02 to 2/21/03 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

A. M. Firth Commissions 74866W NIS NS
 Inspector's Signature National Board, State, and Endorsements

Date 2/21/03



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:** 01/02/03
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:** Control Rod Drive (CRD)
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	6088	N/A	N/A	1974	-----	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6088. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
- 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 6088. Liquid penetrant (PT) examination results acceptable.
- 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 5) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No 6088.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 6088. The Control Rod Drive (CRD) assembly Serial No 6088 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

8 Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None ☒
 Test Pressure: Psig Test Temperature: °F
 Component Design Pressure: Psig Temperature: °F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp: Not Applicable

Certificate Of Authorization No.: Not Applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By Kuldip Singh
 Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)

Date 1/21/03 Date 1/21/03

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 11/20/02 to 2/21/03 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 748610 NIE NS
 Inspector's Signature National Board, State, and Endorsements

Date 2/21/03