

INSERVICE INSPECTION SUMMARY REPORT
FOR
REFUELING OUTAGE RF94A
June 21, 1993 TO September 22, 1994

OWNER: Washington Public Power Supply System
3000 George Washington Way
Richland, Washington 99352

PLANT: WNP-2, located 11 miles north of Richland, Washington on the U.S.
Department of Energy Hanford Reservation

COMMERCIAL SERVICE DATE: December 13, 1984

CAPACITY: 1145 MWe

REACTOR PRESSURE VESSEL: Manufacturer: CBIN Serial Number: T-45
State No.: 29936-84W Nat'l Bd No.: 8

Prepared By: *D. P. Ramey* 10-3-94
ISI Engineer Date

Quais Swep 10/3/94
Repair/Replacement Engineer Date

Reviewed & *Con Ullrich* 10-4-94
Concurred Supervisor, NDE/ISI Services Date
By:

R. A. McLean 10-4-94
Manager, Materials and Inspection Date

P. P. Hayes 10/7/94
Manager, Engineering Programs Date

J. M. Leonard 10-10-94
Manager, Quality Assessments Date

Approved *W. J. Smith / J. H. Smith* 10/10/94
By: Plant Manager Date

Concurrence: *Don V. ...* 10/11/94
Authorized Nuclear Inservice Inspector Date

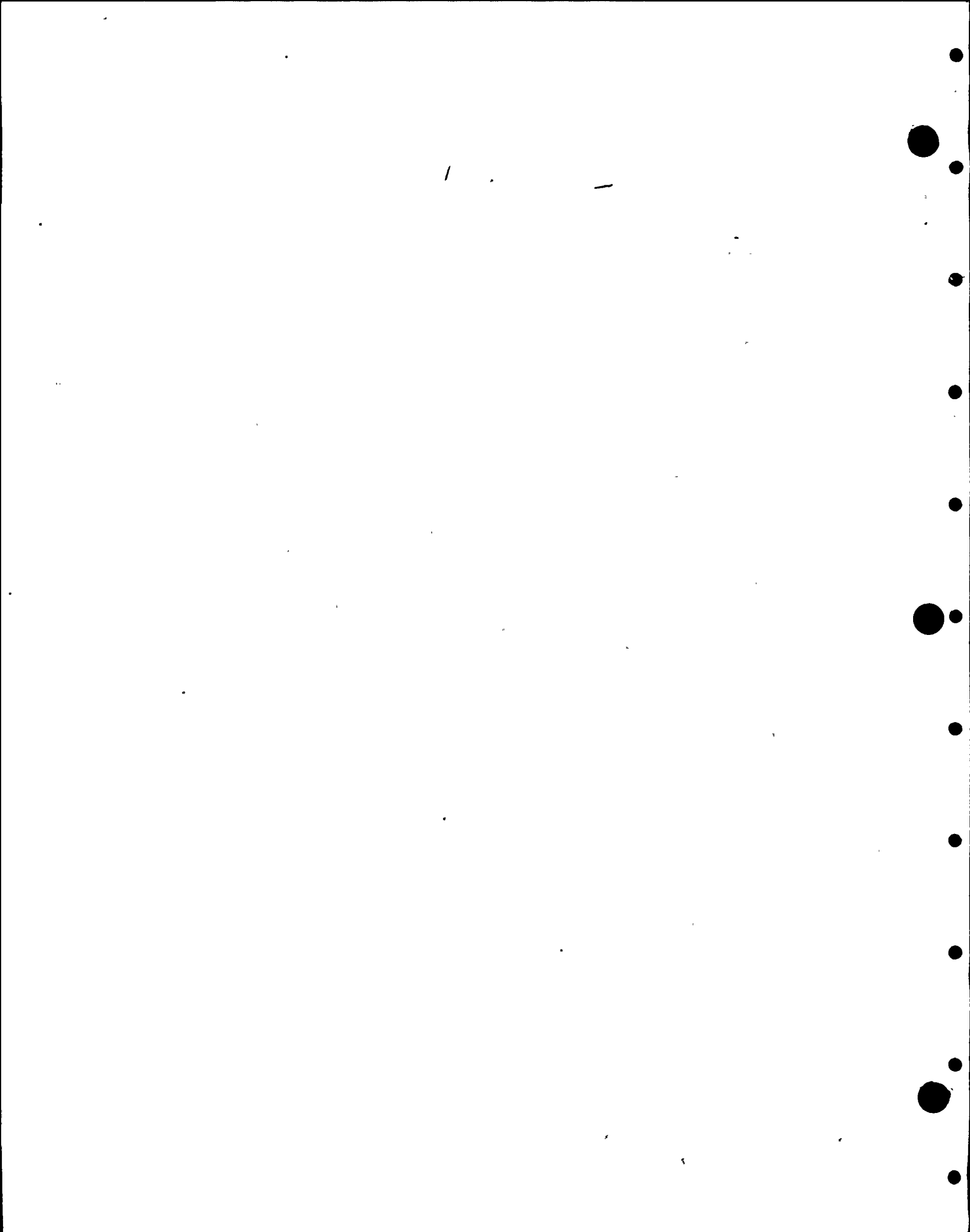


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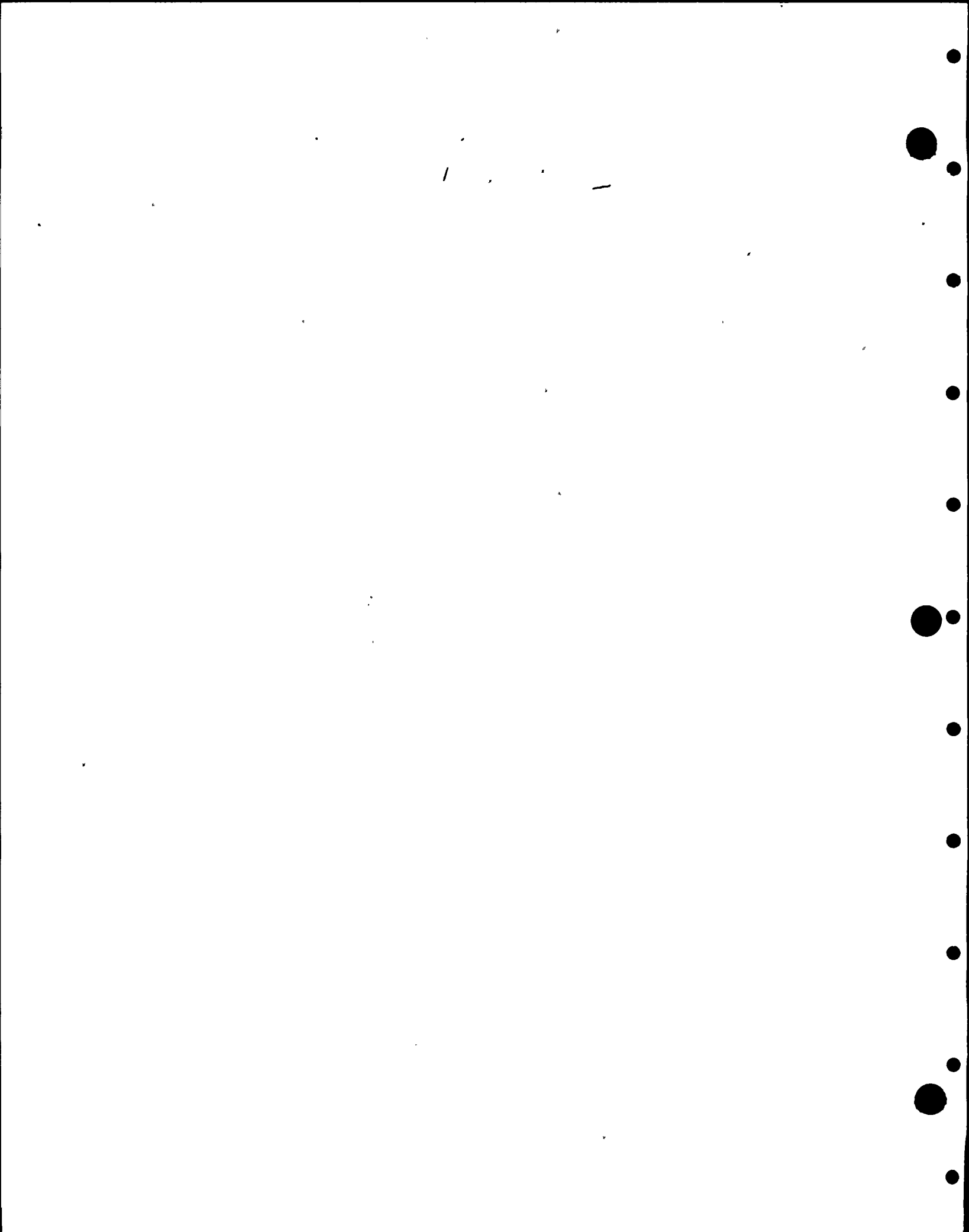
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SUMMARY

WNP-2 has completed the first ASME Section XI inservice inspection interval. The following augmented examinations were also completed at R9: core spray spargers, feedwater nozzle examination for Final Feedwater Temperature Reduction, Generic Letter 88-01, and the RPV shroud. WNP-2 is on schedule with its Generic Letter 88-01 commitments. No change was found in weld 20RRC(6)-8 indication (identified during R6). This report also lists those items that did not receive full ASME Section XI examination coverage during this first inspection interval and are not contained in a relief request.

EXAMINATION RESULTS

This report summarizes the results of inservice inspection (ISI) of ASME Section III, Class 1, 2 and 3 components and supports performed at Washington Public Power Supply System (Supply System) Nuclear Plant No. 2 (WNP-2) between June 21, 1993 and September 22, 1994. Both General Electric (GE) and Supply System personnel performed the examinations. During this period, WNP-2 completed the ninth scheduled refueling outage, RF94A (R9). This report includes the NIS-1 Owner's Report of Inservice Inspection for this refueling outage. A copy can be found in Appendix A.

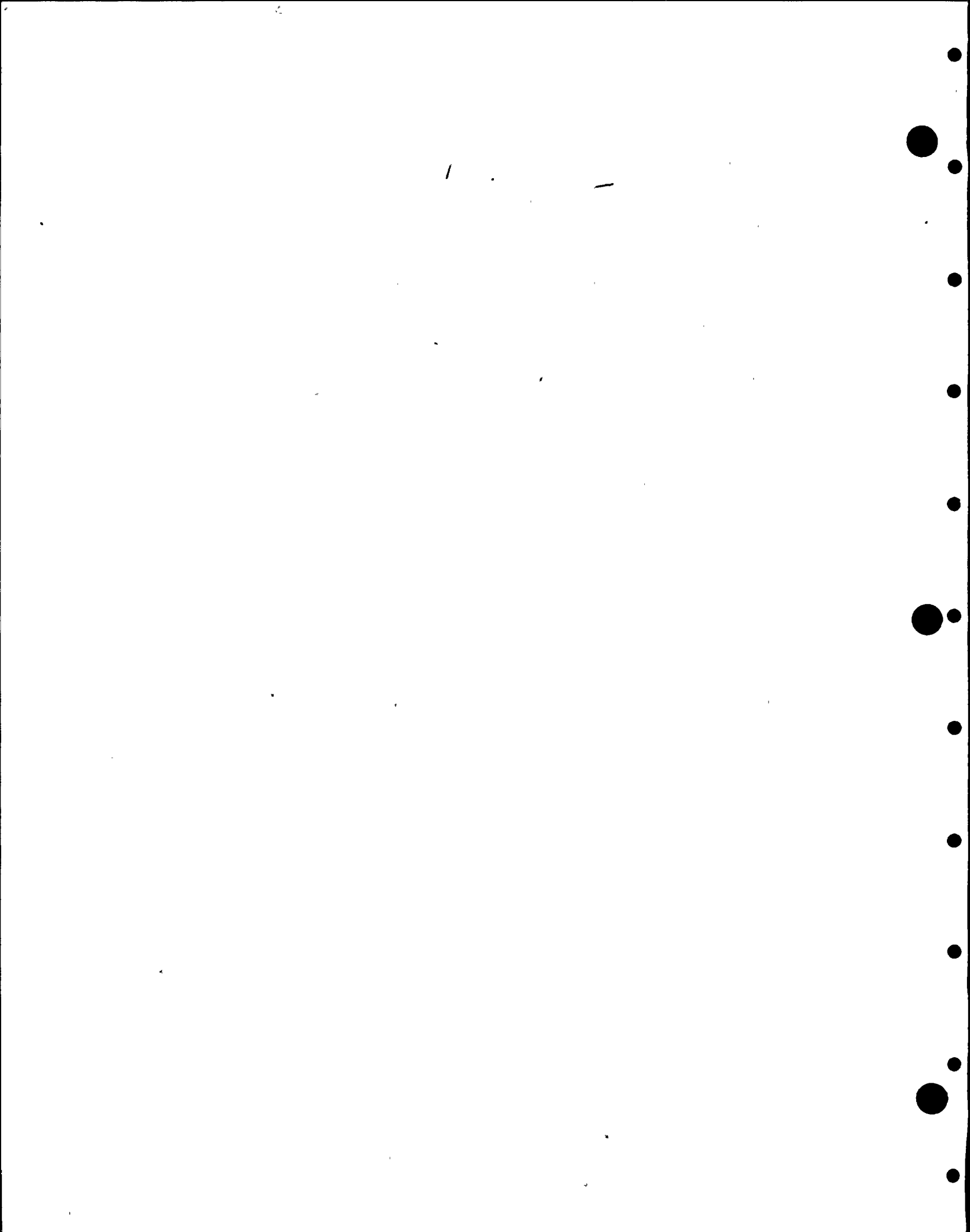
Full ASME Section XI examination coverage, during this first inspection interval, was not obtained on twenty-seven (27) items not covered by existing Nuclear Regulatory Commission approved relief requests. These items are summarized in Table I with the reason full examination coverage was not obtained.

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.

- o IGSCC (intergranular stress corrosion cracking) detection in stainless steel welds, based on Generic Letter 88-01.
- o Visual examination of core spray spargers and supply piping in the Reactor Pressure Vessel.
- o Feedwater nozzle examination for final feedwater temperature reduction (FFWTR or "coastdown")
- o Ultrasonic examination of the RPV shroud

The ASME Section XI examinations comply with the 1980 Edition, Winter 1980 Addenda upgraded as follows:

- o IWA-2300(a)(1), 1983 Edition, Winter 1983 Addenda
- o Code category B-M-2, 1989 Edition, no addenda



- o Code category C-F, 1983 Edition, Winter 1983 Addenda
- o IWF-3400, 1980 Edition Winter, 1981 Addenda
- o IWB-3600, 1986 Edition no Addenda (to comply with GL88-01)

Documentation supporting this summary report is located in the WNP-2 Operations File (DIC 1100). Table II lists the snubbers that were functionally tested during R9. Appendix A contains the NIS-1 Owner's Data Report for Inservice Inspection which lists all the examinations that were completed at R9 for ASME Section XI compliance. Appendix B contains a summary of all the examinations that were completed during the period covered by this report. The ISI drawings referenced are included in the ISI Program Plan previously submitted to the Commission.

The ASME Section XI examinations, tests, repairs and replacements were witnessed or verified by Authorized Nuclear Inservice Inspectors (ANII) D.E. Hoggarth and C.F. Jones. They are employed by Factory Mutual Engineering Association, a subsidiary of Arkwright Mutual Insurance Company, Norwood, Massachusetts.

PIPING EXAMINATIONS

- o One hundred twenty one (121) ASME Section III, Class 1 and 2 examinations were completed by UT, PT or MT methods.
- o Forty-eight (48) ultrasonic examinations (UT) were performed for Generic Letter 88-01 compliance.

RPV EXAMINATIONS

- o Interior visual examinations were performed by General Electric and Supply System personnel. Various augmented items were examined. See augmented examination section below for further details. During visual examination of jet pump sensing lines a crack was found in one jet pump sensing line. Evaluation of the crack determined that the plant can operate to R11 without repair.
- o RPV welds were examined by GE using their GERIS examination system and manual scanning. The RPV weld ultrasonic examinations were performed in accordance with ASME Section XI 1980 Edition Winter, 1980 Addenda, NRC Regulatory Guide 1.150 Revision 1 alternate method. No unacceptable indications were detected.
- o Reactor vessel core shroud was ultrasonically examined. Weld H3 received approximately 35% coverage and weld H4 received about 19% coverage. No evidence of cracking was detected.

10-YEAR HYDROSTATIC TESTS

The Supply System completed the 10-year hydrostatic tests and associated VT-2 examinations on the following ASME Section III Code Class 1, 2, and 3 systems:

CRD	Control Rod Drive
HPCS	High Pressure Core Spray
LPCS	Low Pressure Core Spray
MS	Main Steam
RCC	Reactor Closed Circulation
RCIC	Reactor Core Injection Cooling
RFW	Reactor Feedwater
RHR	Reactor Residual Heat Removal
RRC	Reactor Recirculation Cooling
RPV	Reactor Pressure Vessel
RWCU	Radioactive Waste Clean Up
SLC	Standby By Liquid Control
SW	Standby Service Water

The tests and associated examinations for ASME Section III, Code Class 1 and 2 components were performed to the requirements of Code Case N-498.

AUGMENTED EXAMINATIONS

The Supply System performed augmented examinations per the ISI Program Plan section 5.3, "Mandatory Augmented Inservice Inspection".

- o Weld thickness measurement (ISI Program Plan section 5.3.7)

Thickness measurement of weld 26MS(1)C-15 was completed. Results were compared to acceptable thickness after 10 years of operation and found to be above required minimum wall.

- o Core spray sparger and supply piping (ISI Program Plan section 5.3.5)

A visual examination of the core spray spargers and their supply piping was performed per the requirements of IE Bulletin 80-13, "Cracking in Core Spray Sparger". The examination was performed using an underwater closed circuit TV system capable of resolving a 0.001 inch diameter wire in-situ. No relevant indications were observed.

- o Feedwater nozzle examinations due to Final Feedwater Temperature Reduction (FFWTR or "coastdown") (ISI Program Plan section 5.3.8)

One feedwater nozzle inner radius, bore and associated safe-end were examined per commitments made in Supply System letter G02-90-024, dated February 14, 1990 and

NRC SER dated March 1, 1990. No recordable indications were found.

o Generic Letter 88-01 (ISI Program Plan section 5.3.4)

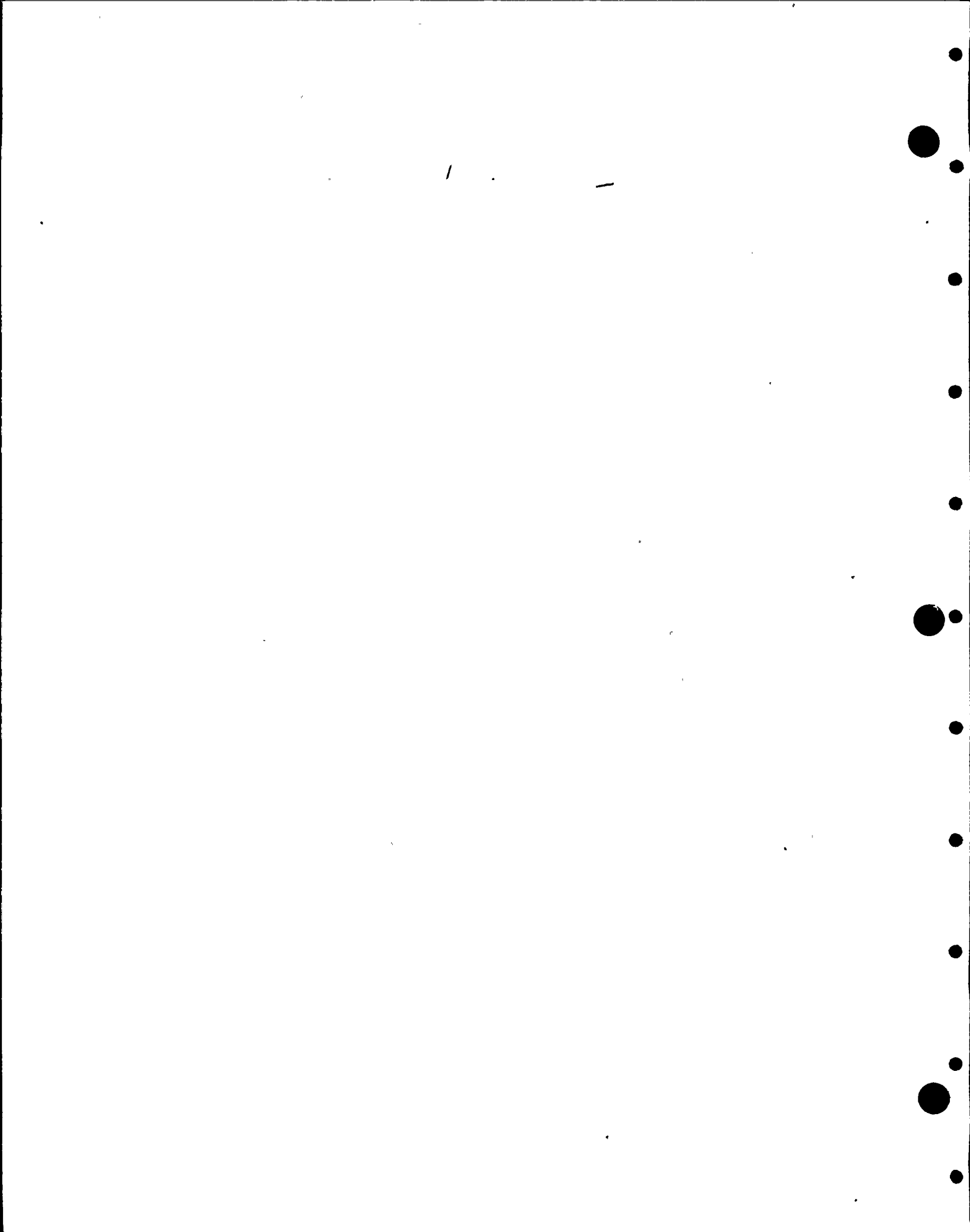
Nineteen (19) Generic Letter 88-01 category A welds, three (3) category B welds, twenty-five (25) category "D" welds and one (1) category "F" weld were examined. No unacceptable indications were found in category "A", "B" and "D" welds. The category "F" weld, 20RRC(6)-8, had a reportable indication detected at R6. The results of the R9 examination of 20RRC(6)-8 weld determined that the flaw size had not changed significantly from R6. The analysis performed at R6 for continued operation is still valid. The results of this examination and analysis for continued operation were submitted to the Commission for review and approval for continued operation (ref. letter GO2-94-135, dated June 9, 1994). The Commission approved operation for one more cycle. (ref. letter dated July 15, 1994, James W. Clifford to J.V. Parrish, "Reactor Recirculation Piping Weld Flaw Reinspection Results Review at Washington Public Power Supply System Nuclear Project No. 2").

Mechanical stress improvement was performed on 44 welds in IGSCC categories "A" and "D". The 19 "A" welds, fabricated of Inconel 600 material, were treated as a precautionary measure and because they are next to the "D" welds that were scheduled to be treated. The remaining 25 "D" welds were treated to mitigate the onset of IGSCC. Following is a summary of Generic Letter 88-01 status.

Category (Total #) ¹	Required within 6 yrs ¹	Required within 10 yrs ¹	WNP-2 Status thru R9 (After 5 yrs) ¹
A (57)	7	14	37 ²
B (147)	37	74	55
(Total #) ³	within 3 yrs ³		(After 2 yr)
D (25)	25		25 ⁴
(Total #) ¹	within 1 yrs		(After 1 yr)
F (1) ⁵	1		1

WNP-2 is on schedule with its GL 88-01 commitments.

-
- ¹ WNP-2 commitment began at R4
 - ² WNP-2 requirements exceed GL 88-01 because of ASME Section XI requirements.
 - ³ WNP-2 commitment began at R7
 - ⁴ Examination after MSIP performed on the welds.
 - ⁵ This category "F" weld was reclassified from category "B" at R6.



o Snubber testing (ISI Program Plan section 6.5)

An initial sample of 37 snubbers was selected from the WNP-2 general population of 494 safety related snubbers. These snubbers were randomly selected by computer sub-routine. The selected snubbers were then reviewed to determine if the sample was representative as required by Technical Specification 4.7.4.e.

Testing of snubbers was performed using portable testing devices called "Validators". These devices were supplied by the snubber manufacturer. Testing results summary is found in Table II.

The next testing is required within 18 months.

PRESERVICE INSPECTIONS

New cap screws were installed in the CRD housings at core locations listed below, when they were disassembled for control rod drive replacement. The new cap screws are of an improved design. A preservice VT-1 examination was performed on all new cap screws.

<u>Identification No.</u>	<u>Method</u>
CRD HOUSING 02-27 BLT	VT-1
CRD HOUSING 02-31 BLT	VT-1
CRD HOUSING 10-31 BLT	VT-1
CRD HOUSING 18-19 BLT	VT-1
CRD HOUSING 18-43 BLT	VT-1
CRD HOUSING 18-47 BLT	VT-1
CRD HOUSING 18-59 BLT	VT-1
CRD HOUSING 22-07 BLT	VT-1
CRD HOUSING 22-11 BLT	VT-1
CRD HOUSING 22-19 BLT	VT-1
CRD HOUSING 22-23 BLT	VT-1
CRD HOUSING 22-43 BLT	VT-1
CRD HOUSING 22-59 BLT	VT-1
CRD HOUSING 26-07 BLT	VT-1
CRD HOUSING 26-15 BLT	VT-1
CRD HOUSING 26-27 BLT	VT-1
CRD HOUSING 30-23 BLT	VT-1
CRD HOUSING 38-23 BLT	VT-1
CRD HOUSING 30-31 BLT	VT-1
CRD HOUSING 30-43 BLT	VT-1
CRD HOUSING 30-47 BLT	VT-1
CRD HOUSING 34-15 BLT	VT-1

CRD HOUSING 38-27 BLT	VT-1
CRD HOUSING 42-31 BLT	VT-1
CRD HOUSING 42-35 BLT	VT-1
CRD HOUSING 42-43 BLT	VT-1
CRD HOUSING 46-39 BLT	VT-1
CRD HOUSING 50-27 BLT	VT-1
CRD HOUSING 54-39 BLT	VT-1
CRD HOUSING 58-19 BLT	VT-1
CRD HOUSING 58-31 BLT	VT-1

LIMITED EXAMINATIONS

Full ASME Section XI required coverage of the examination volume or surface could not be accomplished on two (2) welds.

<u>Weld Ident.</u>	<u>Description</u>	<u>Description of Limitations</u>
AD	#3-#4 SC CIRC WD	Examination coverage restricted in 8 areas where RPV stabilizer lugs are attached to vessel. Scan coverage is 83.6%. This examination coverage exceeded NRC approved relief request ISI-2-001 coverage for this weld. (see ISI Program Plan page 4-8)
AE	#4 SC-FL CRC WD	Due to flange configuration, scan coverage limited to shell side of weld. Three thermocouples limited examination coverage to 98.8% from this side of the weld. The reported scan coverage is 49.4% (calculated for two sided examination) This differs from Relief Request ISI-2-001 (95% coverage) in that the relief request anticipated a two sided examination for this weld.

REPAIRS AND REPLACEMENTS

Seven (7) significant ASME Section XI repair or replacement activities were performed during the RF94A refueling outage: 1) modified vent/drain/test connections, 2) replaced Local Power Range Monitoring (LPRM), 3) replaced modules for electrical penetrations, 4) replaced main steam relief valves, 5) replaced CEP and CSP valves, 6) replaced Control Rod Drives (CRD's) and 7) continuation of the snubber optimization program. A listing and NIS-2 Owner's Reports for these and other ASME Section XI repair or replacement work accomplished and closed out between June 21, 1993 and July 30, 1994 are provided in Appendix C.

- 1) Vent/Drain/Test Connections

Modified three (3) vent/drain/test connections to reduce susceptibility to fatigue induced failures at socket welds.

2) Local Power Range Monitoring (LPRM)

Replaced eight (8) Local Power Range Monitoring (LPRM) incore assemblies.

3) Electrical Penetrations

Replaced modules for Electrical Penetration No X-101B - Position No's 1, 2 and 3, Electrical Penetration No X-104A - Position No 1, Electrical Penetration No X-101A - Position No 1, Electrical Penetration No X-105B - Position No 1, Electrical Penetration No X-105C - Position No's 1, 2 and 3, Electrical Penetration No X-105A - Position No 1, Electrical Penetration No X-101C - Position No 3 and Electrical Penetration No X-101D - Position No 3.

4) Main Steam (MS) System

WNP-2 Main Steam Relief Valves (MSRV's) were manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at WNP-2 plant. "Bailly" Main Steam Relief Valves (MSRV's) were also manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at Northern Indiana Public Service Co (NIPSCO), Bailly Generating Station Nuclear 1 Plant. Supply System procured six (6) new (unused) "Bailly" valves from NIPSCO as spares for use at WNP-2 plant. "Bailly" valves were modified (upgraded) by Crosby to make them equivalent in form, fit and function and interchangeable with WNP-2 valves. Refurbished four (4) main steam relief valves. Eight (8) of the modified/refurbished main steam relief valves were installed in place of the existing main steam relief valves in the plant.

5) Containment Exhaust Purge (CEP) System And Containment Supply Purge (CSP) System

Replaced two (2) 30" butterfly valves CEP-V-1A and CEP-V-2A in Containment Exhaust Purge (CEP) system. Replaced two (2) 24" butterfly valves CSP-V-3 and CSP-V-4 in Containment Supply Purge (CSP) system.

6) Control Rod Drive (CRD)

Overhauled fifteen (15) Control Rod Drives (CRD's) and replaced thirty one (31) Control Rod Drives (CRD's).

7) Snubber Optimization Program

As part of Supply System's effort to reduce the number of safety related snubbers at WNP-2, fifty four (54) snubbers were deleted.

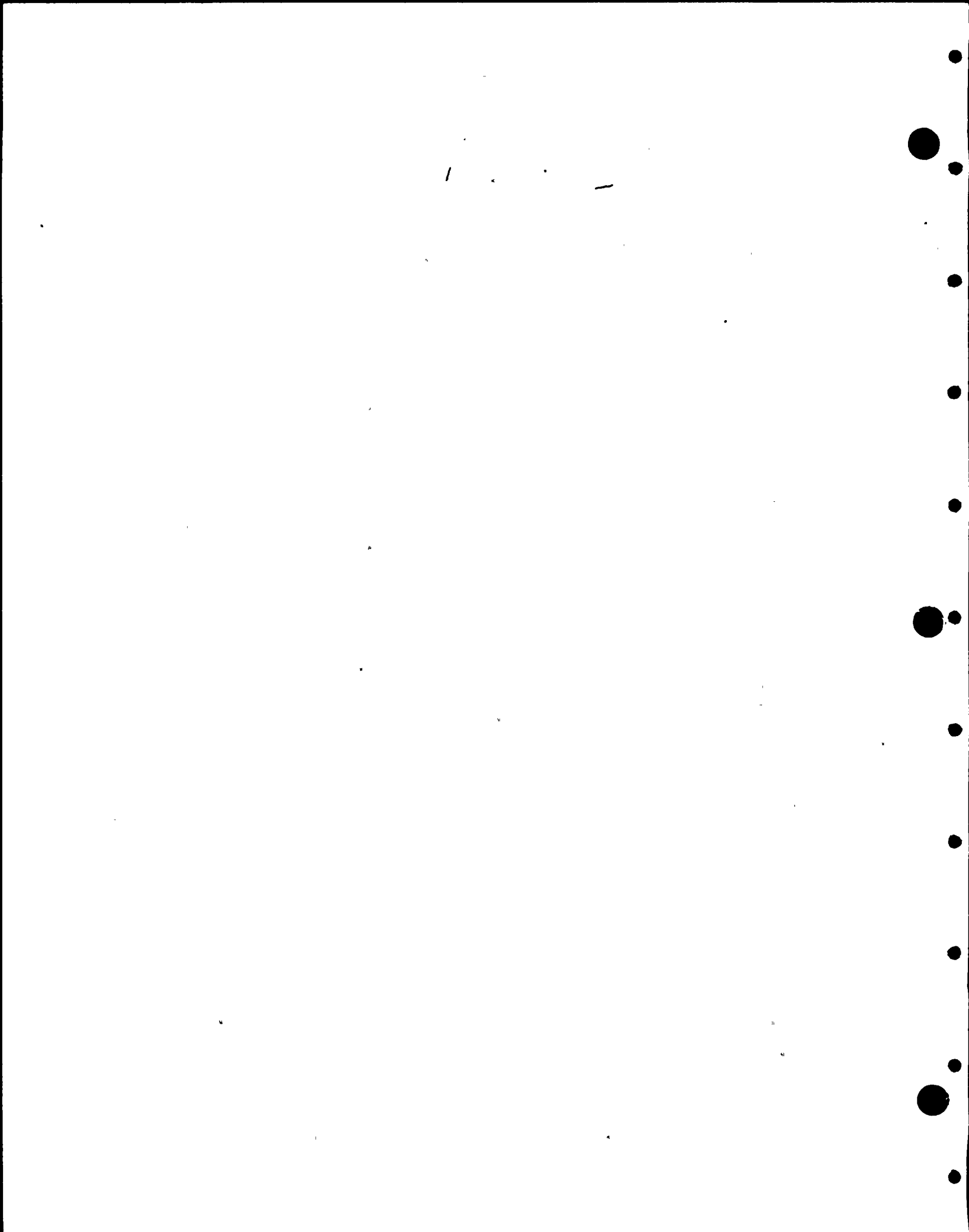


Table I LIMITED EXAMINATIONS NOT COVERED BY RELIEF REQUESTS

The components in this table did not receive full ASME Section XI examination coverage during the first inspection interval and are not included in a relief request.

<u>Ident. No.</u>	<u>Code Cate.</u>	<u>Item No.</u>	<u>Exam Method</u>	<u>Drawing No.</u>	<u>Description</u>	<u>Remarks</u>
FPC-64	IWF ¹	F-X	VT-3	FPC-301	Box	See note 2
FPC-64(W)	D-C	D3.20	VT-1	FPC-301	Attmt Weld	See note 2
FPC-98	IWF	F-X	VT-3	FPC-304	Rigid	See note 2
FPC-114	IWF	F-X	VT-3	FPC-304	Rigid	See note 3
FPC-203	IWF	F-X	VT-3	FPC-304	Box	See note 2
LPCS-19	IWF	F-X	VT-3	LPCS-202	Anchor	See note 2
RHR-53	IWF	F-X	VT-3/4	RHR-207	Spring	See note 4
RHR-77(W)	C-C	C3.40	SUR	RHR-205	Attmt Weld	See note 3
RHR-99	IWF	F-X	VT-3	RHR-210	Anchor	See note 2
RHR-174	IWF	F-X	VT-3	RHR-201	Box	See note 3
RHR-410(W)	C-C	C3.40	SUR	RHR-203	Attmt Weld	See note 3
RHR-605	IWF	F-X	VT-3	RHR-201	Strut	See note 3
RHR-606	IWF	F-X	VT-3	RHR-201	Strut	See note 3
SLC-4453-57	IWF	F-X	VT-3	SLC-101	Rigid	See note 2
SW-90	IWF	F-X	VT-3	SW-307	Rigid	See note 2
SW-90(W)	D-B	D2.20	VT-1	SW-307	Attmt Weld	See note 2
SW-123	IWF	F-X	VT-3	SW-301	Rigid	See note 2
SW-123(W)	D-B	D2.20	VT-1	SW-301	Attmt Weld	See note 2
SW-439	IWF	F-X	VT-3	SW-303	Rigid	See note 2
SW-439(W)	D-B	D2.20	VT-1	SW-303	Attmt Weld	See note 2
SW-946N	IWF	F-X	VT-3	SW-314	Rigid	See note 2
SW-946N(W)	D-B	D2.20	VT-1	SW-314	Attmt Weld	See note 2
SW-951N	IWF	F-X	VT-3	SW-315	Rigid	See note 2
SW-951N(W)	D-B	D2.20	VT-1	SW-315	Attmt Weld	See note 2
SW-950N	IWF	F-X	VT-3	SW-315	Rigid	See note 2
RRC-HA-1(W)	B-K-1	B10.10	SUR	RRC-101	Lugs	See note 5
RRC-HB-1(W)	B-K-1	B10.10	SUR	RRC-102	Lugs	See note 5

Notes

- 1 IWF includes Code categories F-A, F-B and F-C. F-X includes items numbers F-1, F-2, F-3 and F-4 from Table IWF-2500-2
- 2 Examination limited by fire barrier
- 3 In enclosed cubicle or pipe chase
- 4 Limited examination due to surrounding interferences
- 5 High dose required to complete remaining 50% of weld.

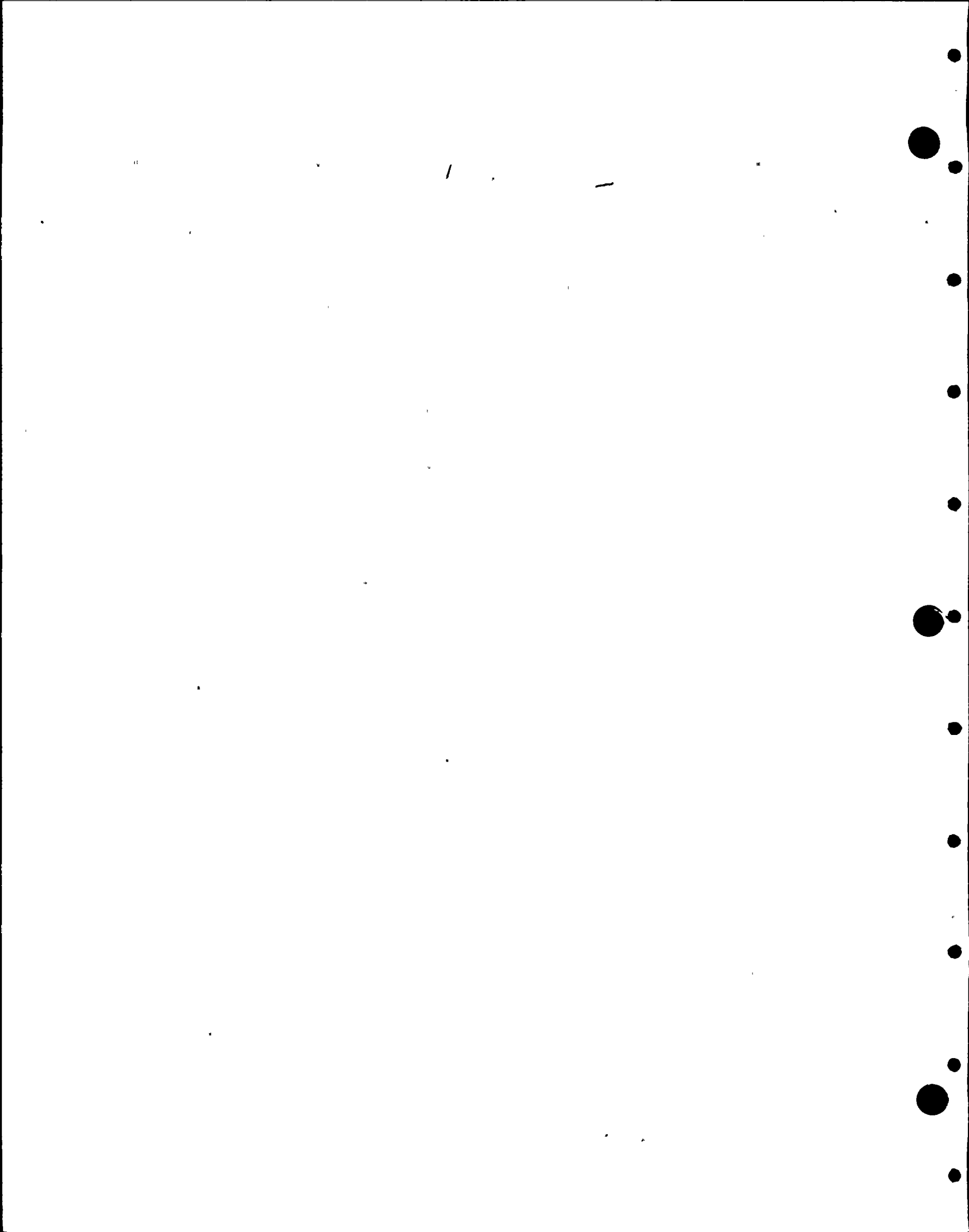


Table II SNUBBER FUNCTIONAL TESTS

Snubber Mark Number	Position	Description	Serial No.	Test Date
HPCS-47	N	PSA-3 SN(2)	470	4/30/94
MD-1290-11B	UA	PSA-1/4 SNUBBER	378	5/05/94
MS-SC-4	UA	PSA-35 SNUBBER	4154	5/05/94
MS-1368-13	UA	PSA-1/2 SNUBBER	2145	5/03/94 ¹
MS-1368-13	UA	PSA-1/2 SNUBBER	2470	5/11/94
MS-91	E	PSA-3 SN(2)	2583	5/05/94
MS-162	TP	PSA-10 SN(2)	325	5/05/94
MSRV-1C-2	UA	PSA-35 SNUBBER	10566	5/04/94
MSRV-3C-2	UA	PSA-10 SNUBBER	4865	5/02/94
MSRV-3C-3	UA	PSA-10 SNUBBER	4866	5/02/94
MSRV-5C-1	UA	PSA-10 SNUBBER	13058	5/03/94
RCIC-38	W	PSA-1 SN(2)	599	5/04/94
RCIC-26	UA	PSA-3 SNUBBER	4415	4/30/94
RFW-915N	UA	PSA-10 SNUBBER	1470	5/02/94
RFW-942N	BH	PSA-1 SN(2)	338	5/02/94
RHR-SB-34	BH	PSA-10 SN(2)	9931	5/03/94
RHR-235	UA	PSA-10 SNUBBER	1462	5/05/94
RHR-260	UA	PSA-10 SNUBBER	716	5/04/94
RHR-256	UA	PSA-35 SNUBBER	10730	5/06/94
RHR-276	N	PSA-3 SN(2)	2575	5/05/94
RHR-947N	TP	PSA-3 SN(2)	3905	4/30/94
RHR-943N	UA	PSA-3 SNUBBER	3900	4/30/94
RHR-563	N	PSA-1 SN(2)	361	5/05/94
RHR-496	UA	PSA-10 SNUBBER	13057	5/02/94
RHR-913N	UA	PSA-3 SNUBBER	4430	4/30/94
RHR-20	UA	PSA-1/2 SNUBBER	413	4/30/94
RHR-301	UA	PSA-3 SNUBBER	654	4/30/94
RHR-4605-41A	UA	PSA-1/4 SNUBBER	6211	4/30/94
RHR-940N	BH	PSA-3 SN(2)	2570	4/30/94
RHR-449	N	PSA-1/2 SN(2)	2532	4/30/94
RRC-SA-18	UA	PSA-35 SNUBBER	4219	5/06/94
RRC-SB-2	UA	PSA-35 SNUBBER	4162	5/06/94
RRC-SB-13	UA	PSA-35 SNUBBER	4194	5/05/94
RRC-SA-6	UA	PSA-100 SNUBBER	620	5/02/94
RHR-SA-52	UA	PSA-10 SNUBBER	11861	5/02/94
RWCU-1C-16	UA	PSA-1 SNUBBER	22344	5/03/94
SGT-23	TP	PSA-3 SN(2)	4487	5/05/94
SW-29	SE	PSA-10 SN(4)	4861	4/30/94

KEY

BH	Bottom	SE	Southeast
E	East	SW	Southwest
N	North	TP	Top
NE	Northeast	UA	Unassigned - consists of a single snubber
NW	Northwest	W	West
S	South		

Notes

All snubber functional tests were acceptable.
None of the tested snubbers require testing at the next refueling outage.

¹ Snubber MS-1368-13 s/n 2145 passed the functional test. To preclude further service life degradation it was replaced by new tested snubber s/n 2470.

APPENDIX A

NIS-1 Owner's Data Report for Inservice Inspection

FORM NIS-1 (back)

8. Examination Dates 6/21/93 to 9/22/94 9. Inspection Interval 12/13/84 to 12/12/94
10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. This refueling outage completes the first inservice inspection interval. Pages 3-12 of this data report list the examinations that were performed.
11. Abstract of Conditions Noted. The indication in weld 20RRC(6)-8 was resized. No significant change was noted. Component supports MS-2619-43, -44, 312 were found aligned outside examination procedure acceptance limits. Component supports RCC-909N and RHR-552 were found with a loose jam nut. Spring setting on RHR-461 was found outside examination procedure acceptance limit. Minor corrosion was found on the shanks of CRD cap screws. During ASME Section III, Class 1 hydrotest leaks were found at several CRD housing flange joints and the body to bonnet flange joint of valve RRC-V-67A.
12. Abstract of Corrective Measures Recommended and Taken. The indication in weld 20RRC(6)-8 was evaluated and determined to be acceptable without repair. The component supports MS-2619-43,-44,-312, RCC-909N, RHR-552, and RHR-461 were evaluated and found to be acceptable as found. The corrosion on the CRD cap screws was found to be within the range of previous analysis. The flange joint leaks of CRD housings and RRC-V-67A were repaired and retested with acceptable results.

We certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Date 10/10 1994 Signed Washington Public Power Supply System By [Signature]
Owner

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

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Data Report during the period 6/21/93 to 9/24/94, 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 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 10/11 1994

[Signature]
Inspector's Signature

Commissions 9556 W NBI
National Board, State and No.

1. Owner: WASHINGTON PUBLIC POWER SUPPLY SYSTEM, 3000 GEORGE WASHINGTON WAY, P.O. BOX 968, RICHLAND, WASHINGTON 99352
2. Plant: WNP-2, HANFORD RESERVATION, BENTON COUNTY WA.
3. Plant Unit: WNP-2
4. Owner Certificate of Authorization: N/A
5. Commercial Service Date: 12/13/1984
6. National Board Number: N/A
10. Abstract of Examinations. LIST OF EXAMINATIONS:

CATA	IDENTIFICATION NO.	DESCRIPTION	ITEM #	METH	DRAWING#
B-A	AD	#3-#4 SC CRC WD	B1.11	VOL	RPV-101
B-A	AE	#4 SC-FL CRC WD	B1.30	VOL	RPV-101
B-A	BN	#4 SC VRT W@330	B1.12	VOL	RPV-101
B-A	BP	#4 SC VRT W@90	B1.12	VOL	RPV-101
B-A	BR	#4 SC VRT W@210	B1.12	VOL	RPV-101
B-A	AG	TOP HD-FLG WELD	B1.40	SUR	RPV-102
B-A	AG	TOP HD-FLG WELD	B1.40	VOL	RPV-102
B-E	N12	VESS INST PENT	B4.13	VT-2	RPV-101
B-E	N14	VESS INST PENT	B4.13	VT-2	RPV-101
B-E	CRD	CRD PEN (185EA)	B4.12	VT-2	RPV-102
B-E	INCORE	INCOR PEN(55EA)	B4.11	VT-2	RPV-102
B-F	12RHR(1)B-10	VLV TO SE	B5.50	SUR	RHR-106
B-F	12RHR(1)B-10	VLV TO SE	B5.50	VOL	RHR-106
B-G-1	RPV BUSHING	RPV BUSHING	B6.50	VT-1	RPV-101
B-G-1	RPV THREADS	THREADS-RPV FLG	B6.40	VOL	RPV-101
B-G-1	RRC-V-60A-BLT	VALVE BOLTING	B6.210	VOL	RRC-101
B-G-1	RRC-V-60A-BLT	VALVE BOLTING	B6.210	VT-1	RRC-101
B-G-1	RRC-V-60B-BLT	VALVE BOLTING	B6.210	VOL	RRC-102
B-G-1	RRC-V-60B-BLT	VALVE BOLTING	B6.210	VT-1	RRC-102
B-G-1	RRC-P-1A-BLT	PUMP BOLTING	B6.180	VOL	RRC-103
B-G-1	RRC-P-1A-BLT	PUMP BOLTING	B6.180	VT-1	RRC-103
B-G-1	RRC-P-1B-BLT	PUMP BOLTING	B6.180	VOL	RRC-103
B-G-1	RRC-P-1B-BLT	PUMP BOLTING	B6.180	VT-1	RRC-103
B-G-2	MS-V-22B-BLT	VALVE BOLTING	B7.70	VT-1	MS-102
B-G-2	MS-V-28B-BLT	VALVE BOLTING	B7.70	VT-1	MS-102
B-G-2	MS-V-22C-BLT	VALVE BOLTING	B7.70	VT-1	MS-103
B-G-2	MS-V-28C-BLT	VALVE BOLTING	B7.70	VT-1	MS-103
B-G-2	6RCIC(1)-44BD	FLANGE BOLTING	B7.50	VT-1	RCIC-102
B-G-2	CRD HOUSING 18-59 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 22-59 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 18-47 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 30-47 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 18-43 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 22-43 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 30-43 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102

(Grouped by: Category)

1. Owner: WASHINGTON PUBLIC POWER SUPPLY SYSTEM, 3000 GEORGE WASHINGTON WAY, P.O. BOX 968, RICHLAND, WASHINGTON 99352
2. Plant: WNP-2, HANFORD RESERVATION, BENTON COUNTY WA.
3. Plant Unit: WNP-2
4. Owner Certificate of Authorization: N/A
5. Commercial Service Date: 12/13/1984
6. National Board Number: N/A
10. Abstract of Examinations. LIST OF EXAMINATIONS:

CATA	IDENTIFICATION NO.	DESCRIPTION	ITEM #	METH	DRAWING#
B-G-2	CRD HOUSING 42-43 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 46-39 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 54-39 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 42-35 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 02-31 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 10-31 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 30-31 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 42-31 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 58-31 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 02-27 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 26-27 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 38-27 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 50-27 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 22-23 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 30-23 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 38-23 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 18-19 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 22-19 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 58-19 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 26-15 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 34-15 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 22-11 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 22-07 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-G-2	CRD HOUSING 26-07 BLT	CRD HOUSING BLT	B7.80	VT-1	RPV-102
B-H	STAB-BRACKET-0	STAB LUG @ 0	B8.10	SUR	RPV-101
B-H	STAB-BRACKET-45	STAB LUG @ 45	B8.10	SUR	RPV-101
B-H	STAB-BRACKET-90	STAB LUG @ 90	B8.10	SUR	RPV-101
B-H	STAB-BRACKET-135	STAB LUG @ 135	B8.10	SUR	RPV-101
B-H	STAB-BRACKET-180	STAB LUG @ 180	B8.10	SUR	RPV-101
B-H	STAB-BRACKET-225	STAB LUG @ 225	B8.10	SUR	RPV-101
B-H	STAB-BRACKET-270	STAB LUG @ 270	B8.10	SUR	RPV-101
B-H	STAB-BRACKET-315	STAB LUG @ 315	B8.10	SUR	RPV-101
B-J	26MS(1)A-1	NZ/TRANSITION	B9.11	SUR	MS-101
B-J	26MS(1)A-1	NZ/TRANSITION	B9.11	VOL	MS-101
B-J	26MS(1)A-2	TRANSITION/PIPE	B9.11	SUR	MS-101
B-J	26MS(1)A-2	TRANSITION/PIPE	B9.11	VOL	MS-101
B-J	26MS(1)A-9	ELL TO PIPE	B9.11	SUR	MS-101
B-J	26MS(1)A-9	ELL TO PIPE	B9.11	VOL	MS-101

1. Owner: WASHINGTON PUBLIC POWER SUPPLY SYSTEM, 3000 GEORGE WASHINGTON WAY, P.O. BOX 968, RICHLAND, WASHINGTON 99352
2. Plant: WNP-2, HANFORD RESERVATION, BENTON COUNTY WA.
3. Plant Unit: WNP-2
4. Owner Certificate of Authorization: N/A
5. Commercial Service Date: 12/13/1984
6. National Board Number: N/A
10. Abstract of Examinations. LIST OF EXAMINATIONS:

CATA	IDENTIFICATION NO.	DESCRIPTION	ITEM #	METH	DRAWING#
B-J	26MS(1)B-1	NZ/TRANSITION	B9.11	SUR	MS-102
B-J	26MS(1)B-1	NZ/TRANSITION	B9.11	VOL	MS-102
B-J	26MS(1)B-2	TRANSITION/PIPE	B9.11	SUR	MS-102
B-J	26MS(1)B-2	TRANSITION/PIPE	B9.11	VOL	MS-102
B-J	26MS(1)B-3	PIPE TO ELL	B9.11	SUR	MS-102
B-J	26MS(1)B-3	PIPE TO ELL	B9.11	VOL	MS-102
B-J	26MS(1)B-3LDO	ELL SEAM	B9.12	SUR	MS-102
B-J	26MS(1)B-3LDO	ELL SEAM	B9.12	VOL	MS-102
B-J	26MS(1)B-3LDI	ELL SEAM	B9.12	SUR	MS-102
B-J	26MS(1)B-3LDI	ELL SEAM	B9.12	VOL	MS-102
B-J	26MS(1)B-16	PIPE TO VALVE	B9.11	SUR	MS-102
B-J	26MS(1)B-16	PIPE TO VALVE	B9.11	VOL	MS-102
B-J	MS-V-22B/2MS(9)-4	DRAIN CONN	B9.32	SUR	MS-102
B-J	MS-V-28B/2MS(9)-4	DRAIN CONN	B9.32	SUR	MS-102
B-J	26MS(1)C-1	NZ / TRANSITION	B9.11	SUR	MS-103
B-J	26MS(1)C-1	NZ / TRANSITION	B9.11	VOL	MS-103
B-J	26MS(1)C-2	TRANSITION/PIPE	B9.11	SUR	MS-103
B-J	26MS(1)C-2	TRANSITION/PIPE	B9.11	VOL	MS-103
B-J	26MS(1)C-6	PIPE TO ELL	B9.11	SUR	MS-103
B-J	26MS(1)C-6	PIPE TO ELL	B9.11	VOL	MS-103
B-J	26MS(1)C-6LDI	ELL SEAM	B9.12	SUR	MS-103
B-J	26MS(1)C-6LDI	ELL SEAM	B9.12	VOL	MS-103
B-J	26MS(1)C-6LDO	ELL SEAM	B9.12	SUR	MS-103
B-J	26MS(1)C-6LDO	ELL SEAM	B9.12	VOL	MS-103
B-J	26MS(1)C-7LUI	ELL SEAM	B9.12	SUR	MS-103
B-J	26MS(1)C-7LUI	ELL SEAM	B9.12	VOL	MS-103
B-J	26MS(1)C-7LUO	ELL SEAM	B9.12	SUR	MS-103
B-J	26MS(1)C-7LUO	ELL SEAM	B9.12	VOL	MS-103
B-J	26MS(1)C-7	ELL TO PIPE	B9.11	SUR	MS-103
B-J	26MS(1)C-7	ELL TO PIPE	B9.11	VOL	MS-103
B-J	MS-V-22C/2MS(9)-4	DRAIN CONN	B9.32	SUR	MS-103
B-J	26MS(1)D-1	NZ / TRANSITION	B9.11	SUR	MS-104
B-J	26MS(1)D-1	NZ / TRANSITION	B9.11	VOL	MS-104
B-J	26MS(1)D-2	TRANSITION/PIPE	B9.11	SUR	MS-104
B-J	26MS(1)D-2	TRANSITION/PIPE	B9.11	VOL	MS-104
B-J	10RCIC(12)-9	PIPE TO ELL	B9.11	SUR	RCIC-101
B-J	10RCIC(12)-9	PIPE TO ELL	B9.11	VOL	RCIC-101
B-J	10RCIC(12)-10	ELL TO PIPE	B9.11	SUR	RCIC-101
B-J	10RCIC(12)-10	ELL TO PIPE	B9.11	VOL	RCIC-101
B-J	10RCIC(12)-10A	PIPE TO PIPE	B9.11	SUR	RCIC-101
B-J	10RCIC(12)-10A	PIPE TO PIPE	B9.11	VOL	RCIC-101
B-J	10RCIC(12)-13	PIPE TO ELL	B9.11	SUR	RCIC-101

1. Owner: WASHINGTON PUBLIC POWER SUPPLY SYSTEM, 3000 GEORGE WASHINGTON WAY, P.O. BOX 968, RICHLAND, WASHINGTON 99352
2. Plant: WNP-2, HANFORD RESERVATION, BENTON COUNTY WA.
3. Plant Unit: WNP-2
4. Owner Certificate of Authorization: N/A
5. Commercial Service Date: 12/13/1984
6. National Board Number: N/A
10. Abstract of Examinations. LIST OF EXAMINATIONS:

CATA	IDENTIFICATION NO.	DESCRIPTION	ITEM#	METH	DRAWING#
B-J	10RCIC(12)-13	PIPE TO ELL	B9.11	VOL	RCIC-101
B-J	10RCIC(12)-14	ELL TO PIPE	B9.11	SUR	RCIC-101
B-J	10RCIC(12)-14	ELL TO PIPE	B9.11	VOL	RCIC-101
B-J	10RCIC(12)-16	PEN TO ELL	B9.11	SUR	RCIC-101
B-J	10RCIC(12)-16	PEN TO ELL	B9.11	VOL	RCIC-101
B-J	10RCIC(12)-17	ELL TO PIPE	B9.11	SUR	RCIC-101
B-J	10RCIC(12)-17	ELL TO PIPE	B9.11	VOL	RCIC-101
B-J	10RCIC(12)-18	ELL TO VALVE	B9.11	SUR	RCIC-101
B-J	10RCIC(12)-18	ELL TO VALVE	B9.11	VOL	RCIC-101
B-J	24RFW(1)A-5	VALVE TO PIPE	B9.11	VOL	RFW-101
B-J	24RFW(1)B-5	VALVE TO PIPE	B9.11	SUR	RFW-102
B-J	24RFW(1)B-5	VALVE TO PIPE	B9.11	VOL	RFW-102
B-J	14LPCI(1)B-1	VLV TO PIPE	B9.11	SUR	RHR-102
B-J	14LPCI(1)B-1	VLV TO PIPE	B9.11	VOL	RHR-102
B-J	14LPCI(1)B-2	PIPE TO ELL	B9.11	SUR	RHR-102
B-J	14LPCI(1)B-2	PIPE TO ELL	B9.11	VOL	RHR-102
B-J	14LPCI(1)C-2	PIPE TO ELL	B9.11	SUR	RHR-103
B-J	14LPCI(1)C-2	PIPE TO ELL	B9.11	VOL	RHR-103
B-J	12RHR(1)A-1D	VALVE TO PIPE	B9.11	SUR	RHR-105
B-J	12RHR(1)A-1D	VALVE TO PIPE	B9.11	VOL	RHR-105
B-J	12RHR(1)A-2	PIPE TO ELL	B9.11	SUR	RHR-105
B-J	12RHR(1)A-2	PIPE TO ELL	B9.11	VOL	RHR-105
B-J	12RHR(1)A-3	ELL TO PIPE	B9.11	SUR	RHR-105
B-J	12RHR(1)A-3	ELL TO PIPE	B9.11	VOL	RHR-105
B-J	12RHR(1)A-4	PIPE TO ELL	B9.11	SUR	RHR-105
B-J	12RHR(1)A-4	PIPE TO ELL	B9.11	VOL	RHR-105
B-J	12RHR(1)A-5	ELL TO PEN	B9.11	SUR	RHR-105
B-J	12RHR(1)A-5	ELL TO PEN	B9.11	VOL	RHR-105
B-J	24RRC(1)A-13/8CAP	PIPE TO SWL	B9.31	SUR	RRC-101
B-J	24RRC(1)A-13/8CAP	PIPE TO SWL	B9.31	VOL	RRC-101
B-J	20RRC(6)-8	PIPE TO VALVE	B9.11	VOL	RRC-105
B-J	12RRC(7)B-2ALU	PIPE SEAM	B9.12	SUR	RRC-107
B-J	12RRC(7)B-2ALU	PIPE SEAM	B9.12	VOL	RRC-107
B-J	12RRC(7)B-2A	PIPE TO PIPE	B9.11	SUR	RRC-107
B-J	12RRC(7)B-2A	PIPE TO PIPE	B9.11	VOL	RRC-107
B-J	12RRC(7)B-2ALD	PIPE SEAM	B9.12	SUR	RRC-107
B-J	12RRC(7)B-2ALD	PIPE SEAM	B9.12	VOL	RRC-107
B-J	12RRC(7)B-2LU	PIPE SEAM	B9.12	SUR	RRC-107
B-J	12RRC(7)B-2LU	PIPE SEAM	B9.12	VOL	RRC-107
B-J	12RRC(7)B-2	PIPE TO ELL	B9.11	SUR	RRC-107
B-J	12RRC(7)B-2	PIPE TO ELL	B9.11	VOL	RRC-107
B-J	4RWCU(4)-1/2RWCU(4)-4	PIPE TO WOL	B9.32	SUR	RWCU-101

1. Owner: WASHINGTON PUBLIC POWER SUPPLY SYSTEM, 3000 GEORGE WASHINGTON WAY, P.O. BOX 968, RICHLAND, WASHINGTON 99352
2. Plant: WNP-2, HANFORD RESERVATION, BENTON COUNTY WA.
3. Plant Unit: WNP-2
4. Owner Certificate of Authorization: N/A
5. Commercial Service Date: 12/13/1984
6. National Board Number: N/A
10. Abstract of Examinations. LIST OF EXAMINATIONS:

CATA	IDENTIFICATION NO.	DESCRIPTION	ITEM #	METH	DRAWING#
B-J	2RWCU(4)-1	VALVE TO PIPE	B9.21	SUR	RWCU-101
B-K-1	MS-HA-2(W)	4 WELDED LUGS	B10.10	SUR	MS-101
B-K-1	MS-HB-3(W)	4 WELDED LUGS	B10.10	SUR	MS-102
B-K-1	RRC-1C-1(W)	8 WELDED LUGS	B10.10	SUR	RRC-104
B-M-2	RHR-V-8-BDY	VALVE BODY	B12.40	VT-3	RHR-104
B-N-1	RPV INTERIOR	RPV INTERIOR	B13.10	VT-3	RPV-101
B-N-2	RPV CORE SUPPORTS	CORE SUPPORTS	B13.21	VT-1	RPV-101
B-N-2	RPV INTERIOR ATTACH	INTERIOR ATTACH	B13.20	VT-1	RPV-101
B-P	HPCS-PB-101(H)	HYDRO PRES BNDR	B15.51	VT-2	HPCS-101
B-P	LPCS-PB-101(H)	HYDRO PRES BNDR	B15.51	VT-2	LPCS-101
B-P	MS-PB-101(H)	HYDRO PRES BNDR	B15.51	VT-2	MS-101
B-P	MS-PB-102(H)	HYDRO PRES BNDR	B15.51	VT-2	MS-102
B-P	MS-PB-103(H)	HYDRO PRES BNDR	B15.51	VT-2	MS-103
B-P	MS-PB-104(H)	HYDRO PRES BNDR	B15.51	VT-2	MS-104
B-P	MS-PB-105(H)	HYDRO PRES BNDR	B15.51	VT-2	MS-105
B-P	MS-PB-106(H)	HYDRO PRES BNDR	B15.51	VT-2	MS-106
B-P	RCIC-PB-101(H)	HYDRO PRES BNDR	B15.51	VT-2	RCIC-101
B-P	RCIC-PB-102(H)	HYDRO PRES BNDR	B15.51	VT-2	RCIC-102
B-P	RFW-PB-101(H)	HYDRO PRES BNDR	B15.51	VT-2	RFW-101
B-P	RFW-PB-102(H)	HYDRO PRES BNDR	B15.51	VT-2	RFW-102
B-P	RFW-PB-103(H)	HYDRO PRES BNDR	B15.51	VT-2	RFW-103
B-P	RHR-PB-101(H)	HYDRO PRES BNDR	B15.51	VT-2	RHR-101
B-P	RHR-PB-102(H)	HYDRO PRES BNDR	B15.51	VT-2	RHR-102
B-P	RHR-PB-103(H)	HYDRO PRES BNDR	B15.51	VT-2	RHR-103
B-P	RHR-PB-104(H)	HYDRO PRES BNDR	B15.51	VT-2	RHR-104
B-P	RHR-PB-105(H)	HYDRO PRES BNDR	B15.51	VT-2	RHR-105
B-P	RHR-PB-106(H)	HYDRO PRES BNDR	B15.51	VT-2	RHR-106
B-P	RPV-PB-101(H)	HYDRO PRES BNDR	B15.11	VT-2	RPV-101
B-P	RPV-PB-102(H)	HYDRO PRES BNDR	B15.10	VT-2	RPV-102
B-P	RRC-PB-101(H)	HYDRO PRES BNDR	B15.51	VT-2	RRC-101
B-P	RRC-PB-102(H)	HYDRO PRES BNDR	B15.51	VT-2	RRC-102
B-P	RRC-PB-103(H)	HYDRO PRES BNDR	B15.51	VT-2	RRC-103
B-P	RRC-PB-104(H)	HYDRO PRES BNDR	B15.51	VT-2	RRC-104

1. Owner: WASHINGTON PUBLIC POWER SUPPLY SYSTEM, 3000 GEORGE WASHINGTON WAY, P.O. BOX 968, RICHLAND, WASHINGTON 99352
2. Plant: WNP-2, HANFORD RESERVATION, BENTON COUNTY WA.
3. Plant Unit: WNP-2
4. Owner Certificate of Authorization: N/A
5. Commercial Service Date: 12/13/1984
6. National Board Number: N/A
10. Abstract of Examinations. LIST OF EXAMINATIONS:

CATA	IDENTIFICATION NO.	DESCRIPTION	ITEM #	METH	DRAWING#
B-P	RRC-PB-105(H)	HYDRO PRES BNDR	B15.51	VT-2	RRC-105
B-P	RRC-PB-106(H)	HYDRO PRES BNDR	B15.51	VT-2	RRC-106
B-P	RRC-PB-107(H)	HYDRO PRES BNDR	B15.51	VT-2	RRC-107
B-P	RRC-PB-108(H)	HYDRO PRES BNDR	B15.51	VT-2	RRC-108
B-P	RRC-PB-109(H)	HYDRO PRES BNDR	B15.51	VT-2	RRC-109
B-P	RRC-PB-110(H)	HYDRO PRES BNDR	B15.51	VT-2	RRC-110
B-P	RRC-PB-111(H)	HYDRO PRES BNDR	B15.51	VT-2	RRC-111
B-P	RWCU-PB-101(H)	HYDRO PRES BNDR	B15.51	VT-2	RWCU-101
B-P	SLC-PB-101(H)	HYDRO PRES BNDR	B15.51	VT-2	SLC-101
C-C	MS-180(W)	WELDED SADDLE	C3.40	SUR	MS-205
C-C	RHR-555(W)	4 WELDED LUGS	C3.40	SUR	RHR-207
C-C	RHR-945N(W)	8 WELDED LUGS	C3.40	SUR	RHR-207
C-C	RHR-925N(W)	1 WELDED LUG	C3.40	SUR	RHR-207
C-C	RHR-967N(W)	WELDED SADDLE	C3.40	SUR	RHR-207
C-C	RHR-557(W)	8 WELDED LUGS	C3.40	SUR	RHR-207
C-C	BS-1	HEATXCHG SUP WD	C3.10	SUR	RHR-214
C-F-2	24HPCS(2)-5	ELBOW TO PIPE	C5.51	SUR	HPCS-201
C-F-2	24HPCS(2)-5	ELBOW TO PIPE	C5.51	VOL	HPCS-201
C-F-2	24HPCS(2)-17	FLANGE TO PIPE	C5.51	SUR	HPCS-201
C-F-2	24HPCS(2)-17	FLANGE TO PIPE	C5.51	VOL	HPCS-201
C-F-2	16HPCS(1)-49/3(10)-4	BRANCH CONN	C5.81	SUR	HPCS-202
C-F-2	16HPCS(1)-50	PIPE TO RED	C5.51	SUR	HPCS-202
C-F-2	16HPCS(1)-50	PIPE TO RED	C5.51	VOL	HPCS-202
C-F-2	16LPCS(1)-34	PIPE TO FLANGE	C5.51	SUR	LPCS-202
C-F-2	16LPCS(1)-34	PIPE TO FLANGE	C5.51	VOL	LPCS-202
C-F-2	12RHR(1)A-1C	FLANGE TO PIPE	C5.51	SUR	RHR-201
C-F-2	12RHR(1)A-1C	FLANGE TO PIPE	C5.51	VOL	RHR-201
C-F-2	16RHR(5)B-6	PIPE TO VALVE	C5.51	SUR	RHR-207
C-F-2	16RHR(5)B-6	PIPE TO VALVE	C5.51	VOL	RHR-207
C-G	RCIC-P-1S	PMP NOZZLE WELD	C6.10	SUR	RCIC-204
C-G	RCIC-P-1D	PMP NOZZLE WELD	C6.10	SUR	RCIC-205
C-H	CRD-PB-201(H)	HYDRO PRES BNDR	C7.21	VT-2	CRD-201
C-H	CRD-PB-202(H)	HYDRO PRES BNDR	C7.21	VT-2	CRD-202
C-H	HPCS-PB-201(H)	HYDRO PRES BNDR	C7.21	VT-2	HPCS-201
C-H	HPCS-PB-202(H)	HYDRO PRES BNDR	C7.21	VT-2	HPCS-202

1. Owner: WASHINGTON PUBLIC POWER SUPPLY SYSTEM, 3000 GEORGE WASHINGTON WAY, P.O. BOX 968, RICHLAND, WASHINGTON 99352
2. Plant: WNP-2, HANFORD RESERVATION, BENTON COUNTY WA.
3. Plant Unit: WNP-2
4. Owner Certificate of Authorization: N/A
5. Commercial Service Date: 12/13/1984
6. National Board Number: N/A
10. Abstract of Examinations. LIST OF EXAMINATIONS:

CATA	IDENTIFICATION NO.	DESCRIPTION	ITEM #	METH	DRAWING#
C-H	LPCS-PB-201(H)	HYDRO PRES BNDR	C7.21	VT-2	LPCS-201
C-H	LPCS-PB-202(H)	HYDRO PRES BNDR	C7.21	VT-2	LPCS-202
C-H	RCC-PB-201(H)	HYDRO PRES BNDR	C7.21	VT-2	RCC-201
C-H	RCC-PB-202(H)	HYDRO PRES BNDR	C7.21	VT-2	RCC-202
C-H	RCIC-PB-201(H)	HYDRO PRES BNDR	C7.21	VT-2	RCIC-201
C-H	RCIC-PB-203(H)	HYDRO PRES BNDR	C7.21	VT-2	RCIC-203
C-H	RCIC-PB-204(H)	HYDRO PRES BNDR	C7.21	VT-2	RCIC-204
C-H	RCIC-PB-205(H)	HYDRO PRES BNDR	C7.21	VT-2	RCIC-205
C-H	RHR-PB-201(H)	HYDRO PRES BNDR	C7.21	VT-2	RHR-201
C-H	RHR-PB-202(H)	HYDRO PRES BNDR	C7.21	VT-2	RHR-202
C-H	RHR-PB-203(H)	HYDRO PRES BNDR	C7.21	VT-2	RHR-203
C-H	RHR-PB-205(H)	HYDRO PRES BNDR	C7.21	VT-2	RHR-205
C-H	RHR-PB-206(H)	HYDRO PRES BNDR	C7.21	VT-2	RHR-206
C-H	RHR-PB-207(H)	HYDRO PRES BNDR	C7.21	VT-2	RHR-207
C-H	RHR-PB-209(H)	HYDRO PRES BNDR	C7.21	VT-2	RHR-209
C-H	RHR-PB-210(H)	HYDRO PRES BNDR	C7.21	VT-2	RHR-210
C-H	RHR-PB-211(H)	HYDRO PRES BNDR	C7.21	VT-2	RHR-211
D-A	MS-PB-301(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-301
D-A	MS-PB-302(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-302
D-A	MS-PB-303(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-303
D-A	MS-PB-304(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-304
D-A	MS-PB-305(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-305
D-A	MS-PB-306(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-306
D-A	MS-PB-307(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-307
D-A	MS-PB-308(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-308
D-A	MS-PB-309(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-309
D-A	MS-PB-310(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-310
D-A	MS-PB-311(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-311
D-A	MS-PB-312(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-312
D-A	MS-PB-313(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-313
D-A	MS-PB-314(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-314
D-A	MS-PB-315(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-315
D-A	MS-PB-316(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-316
D-A	MS-PB-317(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-317
D-A	MS-PB-318(H)	HYDRO PRES BNDR	D1.10	VT-2	MS-318
D-B	SW-PB-301(H)	HYDRO PRES BNDR	D2.10	VT-2	SW-301
D-B	SW-PB-302(H)	HYDRO PRES BNDR	D2.10	VT-2	SW-302
D-B	SW-PB-303(H)	HYDRO PRES BNDR	D2.10	VT-2	SW-303

1. Owner: WASHINGTON PUBLIC POWER SUPPLY SYSTEM, 3000 GEORGE WASHINGTON WAY, P.O. BOX 968, RICHLAND, WASHINGTON 99352
2. Plant: WNP-2, HANFORD RESERVATION, BENTON COUNTY WA.
3. Plant Unit: WNP-2
4. Owner Certificate of Authorization: N/A
5. Commercial Service Date: 12/13/1984
6. National Board Number: N/A
10. Abstract of Examinations. LIST OF EXAMINATIONS:

CATA	IDENTIFICATION NO.	DESCRIPTION	ITEM #	METH	DRAWING#
D-B	SW-PB-304(H)	HYDRO PRES BNDR	D2.10	VT-2	SW-304
D-B	SW-PB-305(H)	HYDRO PRES BNDR	D2.10	VT-2	SW-305
D-B	SW-PB-306(H)	HYDRO PRES BNDR	D2.10	VT-2	SW-306
D-B	SW-PB-307(H)	HYDRO PRES BNDR	D2.10	VT-2	SW-307
D-B	SW-PB-308(H)	HYDRO PRES BNDR	D2.10	VT-2	SW-308
D-B	SW-PB-309(H)	HYDRO PRES BNDR	D2.10	VT-2	SW-309
D-B	SW-PB-310(H)	HYDRO PRES BNDR	D2.10	VT-2	SW-310
D-B	SW-PB-311(H)	HYDRO PRES BNDR	D2.10	VT-2	SW-311

D-C	FPC-PB-305(H)	HYDRO PRES BNDR	D3.10	VT-2	FPC-305
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This item was performed 3/1/93, but was not included in the R8 NIS-1 report

WF	LPCS-32	RIGID	F-X	VT3H	LPCS-206
WF	LPCS-45	RIGID	F-X	VT3H	LPCS-206
WF	LPCS-33	RIGID	F-X	VT3H	LPCS-206
WF	LPCS-35	SPRING	F-X	VT3H	LPCS-206
WF	LPCS-34	RIGID	F-X	VT3H	LPCS-206
WF	LPCS-36	ANCHOR	F-X	VT3H	LPCS-206
WF	MS-2619-210	STRUT	F-X	VT3H	MS-106
WF	MS-2619-26	STRUT	F-X	VT3H	MS-106
WF	MS-2619-310	STRUT	F-X	VT3H	MS-106
WF	MS-2619-312	STRUT	F-X	VT3H	MS-106
WF	MS-2619-319	STRUT	F-X	VT3H	MS-106
WF	MS-2619-318	STRUT	F-X	VT3H	MS-106
WF	MS-2619-320	SPRING	F-X	VT3H	MS-106
WF	MS-2619-44	SPRING	F-X	VT3H	MS-106
WF	MS-2619-46	STRUT	F-X	VT3H	MS-106
WF	MS-2619-45	PSA-1/4 SNUBBER	F-X	VT3H	MS-106
WF	MS-2619-43	SPRING	F-X	VT3H	MS-106
WF	MS-2619-42A	STRUT	F-X	VT3H	MS-106
WF	MS-2619-42C	PSA-1/2 SNUBBER	F-X	VT3H	MS-106
WF	MSRV-4A-10	STRUT	F-X	VT3H	MS-304
WF	RCC-909N	STRUT	F-X	VT3H	RCC-301
WF	RHR-521	SPRING	F-X	VT3H	RHR-102
WF	RHR-597	STRUT	F-X	VT3H	RHR-204
WF	RHR-968N	ANCHOR	F-X	VT3H	RHR-207
WF	RHR-540	STRUT	F-X	VT3H	RHR-207
WF	RHR-539	STRUT	F-X	VT3H	RHR-207
WF	RHR-551	PSA-3 SN(2)	F-X	VT3H	RHR-207
WF	RHR-553	STRUT	F-X	VT3H	RHR-207
WF	RHR-552	STRUT	F-X	VT3H	RHR-207

Washington Public Power Supply System
NIS-1
(Grouped by: Category)

1. Owner: WASHINGTON PUBLIC POWER SUPPLY SYSTEM, 3000 GEORGE WASHINGTON WAY, P.O. BOX 968, RICHLAND, WASHINGTON 99352
2. Plant: WNP-2, HANFORD RESERVATION, BENTON COUNTY WA.
3. Plant Unit: WNP-2
4. Owner Certificate of Authorization: N/A
5. Commercial Service Date: 12/13/1984
6. National Board Number: N/A
10. Abstract of Examinations. LIST OF EXAMINATIONS:

CATA	IDENTIFICATION NO.	DESCRIPTION	ITEM #	METH	DRAWING#
IWF	RHR-554	STRUT	F-X	VT3H	RHR-207
IWF	RHR-555	SPRING	F-X	VT3H	RHR-207
IWF	RHR-1002N	PSA-3 SN(2)	F-X	VT3H	RHR-207
IWF	RHR-556	STRUT	F-X	VT3H	RHR-207
IWF	RHR-980N	PSA-10 SNUBBER	F-X	VT3H	RHR-207
IWF	RHR-928N	SPRING	F-X	VT3H	RHR-207
IWF	RHR-925N	SPRING	F-X	VT3H	RHR-207
IWF	RHR-1020N	STRUT	F-X	VT3H	RHR-207
IWF	RHR-927N	SPRING	F-X	VT3H	RHR-207
IWF	RHR-967N	ANCHOR	F-X	VT3H	RHR-207
IWF	RHR-558	PSA-3 SNUBBER	F-X	VT3H	RHR-207
IWF	RHR-557	STRUT	F-X	VT3H	RHR-207
IWF	RHR-559	SPRING	F-X	VT3H	RHR-207
IWF	RHR-562	PSA-3 SNUBBER	F-X	VT3H	RHR-207
IWF	RHR-561	STRUT	F-X	VT3H	RHR-207
IWF	RHR-563	PSA-1 SN(2)	F-X	VT3H	RHR-207
IWF	RHR-560	SPRING	F-X	VT3H	RHR-207
IWF	RHR-461	SPRING	F-X	VT3H	RHR-207
IWF	RHR-565	STRUT	F-X	VT3H	RHR-207
IWF	RHR-564	STRUT	F-X	VT3H	RHR-207
IWF	RHR-459	STRUT	F-X	VT3H	RHR-207
IWF	RHR-52	PSA-3 SNUBBER	F-X	VT3H	RHR-207
IWF	RHR-998N	PSA-3 SNUBBER	F-X	VT3H	RHR-207
IWF	RHR-937N	RIGID	F-X	VT3H	RHR-207
IWF	RHR-962N	PSA-10 SNUBBER	F-X	VT3H	RHR-207
IWF	RHR-931N	SPRING	F-X	VT3H	RHR-207
IWF	RHR-906N	PSA-10 SN(2)	F-X	VT3H	RHR-207
IWF	RHR-914N	PSA-10 SNUBBER	F-X	VT3H	RHR-207
IWF	RHR-183	PSA-10 SN(2)	F-X	VT3H	RHR-207
IWF	RHR-932N	SPRING	F-X	VT3H	RHR-207
IWF	RHR-913N	PSA-3 SNUBBER	F-X	VT3H	RHR-207
IWF	RHR-903N	PSA-3 SNUBBER	F-X	VT3H	RHR-207
IWF	RHR-219	SPRING	F-X	VT3H	RHR-207
IWF	RRC-12	SPRING	F-X	VT3H	RRC-104
IWF	RRC-1C-1	PSA-1 SN(2)	F-X	VT3H	RRC-104
IWF	RRC-1C-900N	PSA-1 SN(2)	F-X	VT3H	RRC-104
IWF	SLC-4453-68	STRUT	F-X	VT3H	SLC-101
IWF	SLC-4475-25	STRUT	F-X	VT3H	SLC-101
IWF	SLC-4475-24	STRUT	F-X	VT3H	SLC-101
IWF	SLC-4475-21	PSA-1 SNUBBER	F-X	VT3H	SLC-101
IWF	SLC-4475-22	SPRING	F-X	VT3H	SLC-101
IWF	SLC-4475-121	SPRING	F-X	VT3H	SLC-101

(Grouped by: Category)

1. Owner: WASHINGTON PUBLIC POWER SUPPLY SYSTEM, 3000 GEORGE WASHINGTON WAY, P.O. BOX 968, RICHLAND, WASHINGTON 99352
2. Plant: WNP-2, HANFORD RESERVATION, BENTON COUNTY WA.
3. Plant Unit: WNP-2
4. Owner Certificate of Authorization: N/A
5. Commercial Service Date: 12/13/1984
6. National Board Number: N/A
10. Abstract of Examinations. LIST OF EXAMINATIONS:

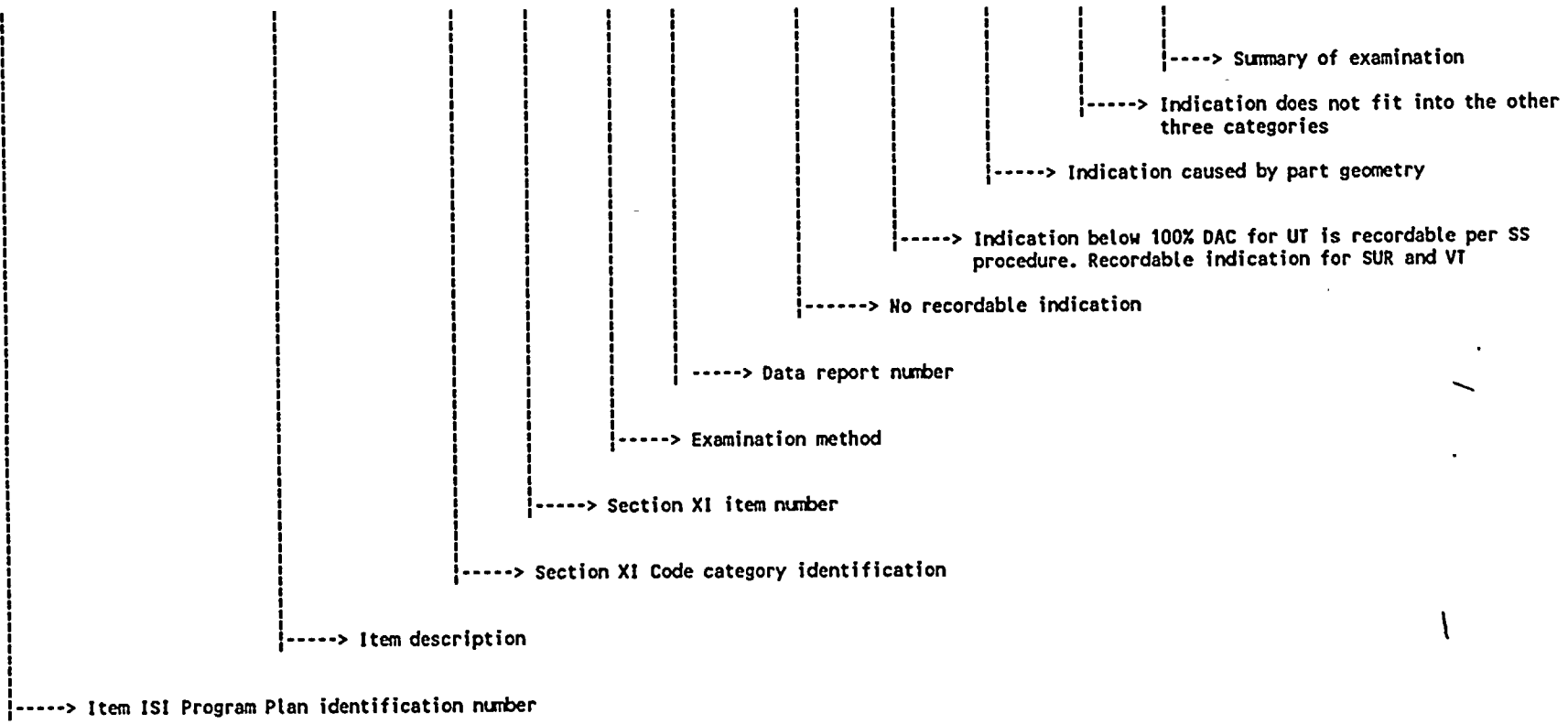
CATA	IDENTIFICATION NO.	DESCRIPTION	ITEM #	METH	DRAWING#
IWF	SLC-4475-117	STRUT	F-X	VT3H	SLC-101

APPENDIX B

This appendix summarizes the ISI results for refueling outage RF94A. This outage is identified as R9 in this summary.

Appendix B
 Washington Public Power Supply System - WNP-2
 ISI Examination Results - R9

Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
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Appendix B
Washington Public Power Supply System - WNP-2
ISI Examination Results - R9

<u>Identification No.</u>	<u>Description</u>	<u>Code Cate.</u>	<u>Item No.</u>	<u>Meth</u>	<u>Data Rpt. No.</u>	<u>Noind</u>	<u>Insig</u>	<u>Geom</u>	<u>Other</u>	<u>Remarks</u>
Drawing # CRD-201										
6CRD(12)A-4	ELL TO PIPE	N/A	AUGMT	VOL	1CRU-004			45		50% AND 70% DAC 180 to 360 degree - ID geometry. 50% DAC beam redirect due to weld crown surface.
6CRD(12)A-7	PIPE TO TEE	N/A	AUGMT	VOL	1CRU-010		45	45		60% DAC 0-180 beam redirect and OD crown. 110% DAC 0-180 degree beam redirect.
8CRD(12)A-3	ELL TO ELL	N/A	AUGMT	VOL	1CRU-006	45				No recordable indications
6CRD(12)A-12	PIPE TO ELL	N/A	AUGMT	VOL	1CRU-005	45				No recordable indications
8CRD(12)A-13	PIPE TO TEE	N/A	AUGMT	VOL	1CRU-007			45		50% DAC 0-180 degree, 63% DAC 180 - 360 degree ID Geometry
8CRD(12)A-15	ELL TO PIPE	N/A	AUGMT	VOL	1CRU-008	45				No Recordable indications
8CRD(12)A-19	ELL TO PIPE	N/A	AUGMT	VOL	1CRU-009	45				No Recordable indications
8CRD(12)A-22/2FLG	PIPET TO EL	N/A	N/A	SUR	1CRM-004	ACC				No recordable indications
12CRD(12)A-3	PIPE TO CAP	N/A	AUGMT	VOL	1CRU-011		45			ID root geometry.
CRD-PB-201(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	CL29	ACC				No unacceptable indications
Drawing # CRD-202										
CRD-PB-202(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	CL29	ACC				No unacceptable indications
Drawing # CSP-202										
24CSP(1)-3	TEE TO FLANGE	N/A	N/A	VOL	1CSU-014	45				No recordable indications
Drawing # HPCS-101										
10HPCS(1)-3	SE EXT TO SE	B-F	B5.10	VOL	R-R9-035		45,60			Beam redirect and root geometry were recorded. Exam limited to a "W" of 1.3" due to nozzle configuration. Manual examination covered examination volume that was missed by Smart 2000. Post MSIP

Appendix B
Washington Public Power Supply System - WNP-2
ISI Examination Results - R9

Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # HPCS-101										
10HPCS(1)-4	SE TO NOZZLE	B-F	B5.10	VOL	R-R9-033	45				No recordable indications. Exam limited to a "W" of 1.15" from weld CL due to nozzle transition. Post MSIP
HPCS-PB-101(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	FS9301	ACC				No unacceptable indications
HPCS-PB-101(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # HPCS-201										
24HPCS(2)-5	ELBOW TO PIPE	C-F-2	C5.51	SUR	1HPM-014	ACC				No recordable indications
24HPCS(2)-5	ELBOW TO PIPE	C-F-2	C5.51	VOL	1HPU-023	44				No recordable indications
24HPCS(2)-17	FLANGE TO PIPE	C-F-2	C5.51	SUR	1HPM-015	ACC				No recordable indications
24HPCS(2)-17	FLANGE TO PIPE	C-F-2	C5.51	VOL	1HPU-022	45				No recordable indications
HPCS-PB-201(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.30	ACC				No recordable indications
Drawing # HPCS-202										
16HPCS(1)-49/3(10)-4	BRANCH CONN	C-F-2	C5.81	SUR	1HPM-016	ACC				No recordable indications
16HPCS(1)-50	PIPE TO RED	C-F-2	C5.51	SUR	1HPM-013	ACC				No recordable indications
16HPCS(1)-50	PIPE TO RED	C-F-2	C5.51	VOL	1HPU-021	44				No recordable indications
HPCS-PB-202(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.30	ACC				No recordable indications
Drawing # LPCS-101										
10LPCS(1)-3	SE EXT TO SE	B-F	B5.10	VOL	R-R9-022		45,60			ID and root geometry recorded. Optimum search unit contact was not achieved on the downstream side of the weld from a "W" of 0.3 to 1.1" from weld centerline due to the safe end taper configuration. Pre MSIP examination,

Appendix B
Washington Public Power Supply System - WNP-2
ISI Examination Results - R9

Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # LPCS-101										
10LPCS(1)-3	SE EXT TO SE	B-F	B5.10	VOL	R-R9-041		45,60			ID and root geometry recorded. Optimum search unit contact was not achieved on the downstream side of the weld from a "W" of 0.3" to 1.1" from weld centerline due to safe end taper configuration. Post MSIP examination.
10LPCS(1)-4	SE TO NOZZLE	B-F	B5.10	VOL	R-R9-037		45			Geometry recorded. Exam limited to a "W" of 1.0" from weld CL due to nozzle transition. Post MSIP exam
LPCS-PB-101(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	FS9401	ACC				No unacceptable indications
LPCS-PB-101(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # LPCS-201										
LPCS-PB-201(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.29	ACC				No recordable indications
Drawing # LPCS-202										
16LPCS(1)-34	PIPE TO FLANGE	C-F-2	C5.51	SUR	1LPM-019	ACC				No recordable indications
16LPCS(1)-34	PIPE TO FLANGE	C-F-2	C5.51	VOL	1LPU-032	44				No recordable indications
LPCS-PB-202(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.29	ACC				No recordable indications
Drawing # LPCS-206										
LPCS-32	RIGID	IWF	F-X	VT3H	1HV-0276	ACC				No recordable indications
LPCS-45	RIGID	IWF	F-X	VT3H	1HV-0275	ACC				No recordable indications
LPCS-33	RIGID	IWF	F-X	VT3H	1HV-0272	ACC				No recordable indications
LPCS-35	SPRING	IWF	F-X	VT3H	1HV-0271	ACC				No recordable indications
LPCS-34	RIGID	IWF	F-X	VT3H	1HV-0273	ACC				No recordable indications
LPCS-36	ANCHOR	IWF	F-X	VT3H	1HV-0274	ACC				No recordable indications

Appendix B
 Washington Public Power Supply System - WNP-2
 ISI Examination Results - R9

Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # MS-101										
26MS(1)A-1	NZ/TRANSITION	B-J	B9.11	SUR	1MSH-067	ACC				No recordable indications
26MS(1)A-1	NZ/TRANSITION	B-J	B9.11	VOL	1MSU-115	44				No recordable indications
26MS(1)A-2	TRANSITION/PIPE	B-J	B9.11	SUR	1MSH-067	ACC				No recordable indications
26MS(1)A-2	TRANSITION/PIPE	B-J	B9.11	VOL	1MSU-110	44				No recordable indications
26MS(1)A-9	ELL TO PIPE	B-J	B9.11	SUR	1MSH-063	ACC				No recordable indications
26MS(1)A-9	ELL TO PIPE	B-J	B9.11	VOL	1MSU-105	44				No recordable indications
MS-HA-2(W)	4 WELDED LUGS	B-K-1	B10.10	SUR	1MSH-070	ACC				No Recordable Indications
MS-PB-101(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # MS-102										
26MS(1)B-1	NZ/TRANSITION	B-J	B9.11	SUR	1MSH-066	ACC				No recordable indications
26MS(1)B-1	NZ/TRANSITION	B-J	B9.11	VOL	1MSU-116	44				No recordable indications
26MS(1)B-2	TRANSITION/PIPE	B-J	B9.11	SUR	1MSH-066	ACC				No recordable indications
26MS(1)B-2	TRANSITION/PIPE	B-J	B9.11	VOL	1MSU-111	44				No recordable indications
26MS(1)B-3	PIPE TO ELL	B-J	B9.11	SUR	1MSH-066	ACC				No recordable indications
26MS(1)B-3	PIPE TO ELL	B-J	B9.11	VOL	1MSU-112	44				No recordable indications
26MS(1)B-3LDO	ELL SEAM	B-J	B9.12	SUR	1MSH-066	ACC				No recordable indications
26MS(1)B-3LDO	ELL SEAM	B-J	B9.12	VOL	1MSU-113	44				No recordable indications
26MS(1)B-3LDI	ELL SEAM	B-J	B9.12	SUR	1MSH-066	ACC				No recordable indications
26MS(1)B-3LDI	ELL SEAM	B-J	B9.12	VOL	1MSU-114	44				No recordable indications
MS-HB-3(W)	4 WELDED LUGS	B-K-1	B10.10	SUR	1MSH-069	ACC				No Recordable Indications
26MS(1)B-16	PIPE TO VALVE	B-J	B9.11	SUR	1MSH-062	ACC				No recordable indications
26MS(1)B-16	PIPE TO VALVE	B-J	B9.11	VOL	1MSU-104	44				No recordable indications
MS-V-22B/2MS(9)-4	DRAIN CONN	B-J	B9.32	SUR	1MSH-062	ACC				No recordable indications
MS-V-22B-BLT	VALVE BOLTING	B-G-2	B7.70	VT-1	1MSV-154	ACC				No recordable indications
26MS(1)B-17	VALVE TO PENE	B-J	B9.11	VOL	1MSU-099	45				No recordable indications

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # MS-102										
26MS(1)B-18	PENE TO VALVE	B-J	89.11	VOL	1MSU-097	45				No recordable indications
MS-V-288/2MS(9)-4	DRAIN CONN	B-J	89.32	SUR	1MSM-062	ACC				No recordable indications
MS-V-288-BLT	VALVE BOLTING	B-G-2	87.70	VT-1	1MSV-155	ACC				No recordable indications
MS-PB-102(H)	HYDRO PRES BNDR	B-P	815.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # MS-103										
26MS(1)C-1	NZ / TRANSITION	B-J	89.11	SUR	1MSM-065	ACC				No recordable indications
26MS(1)C-1	NZ / TRANSITION	B-J	89.11	VOL	1MSU-108	44				No recordable indications
26MS(1)C-2	TRANSITION/PIPE	B-J	89.11	SUR	1MSM-065	ACC				No recordable indications
26MS(1)C-2	TRANSITION/PIPE	B-J	89.11	VOL	1MSU-107	44				No recordable indications
26MS(1)C-6	PIPE TO ELL	B-J	89.11	SUR	1MSM-060	ACC				No recordable indications
26MS(1)C-6	PIPE TO ELL	B-J	89.11	VOL	1MSU-102	45				No recordable indications
26MS(1)C-6LDI	ELL SEAM	B-J	89.12	SUR	1MSM-060	ACC				No recordable indications
26MS(1)C-6LDI	ELL SEAM	B-J	89.12	VOL	1MSU-102	45				No recordable indications
26MS(1)C-6LDO	ELL SEAM	B-J	89.12	SUR	1MSM-060	ACC				No recordable indications
26MS(1)C-6LDO	ELL SEAM	B-J	89.12	VOL	1MSU-102	45				No recordable indications
26MS(1)C-7LUI	ELL SEAM	B-J	89.12	SUR	1MSM-059	ACC				No recordable indications
26MS(1)C-7LUI	ELL SEAM	B-J	89.12	VOL	1MSU-103	45				No recordable indications
26MS(1)C-7LUO	ELL SEAM	B-J	89.12	SUR	1MSM-059	ACC				No recordable indications
26MS(1)C-7LUO	ELL SEAM	B-J	89.12	VOL	1MSU-103	45				No recordable indications
26MS(1)C-7	ELL TO PIPE	B-J	89.11	SUR	1MSM-059	ACC				No recordable indications
26MS(1)C-7	ELL TO PIPE	B-J	89.11	VOL	1MSU-103	45				No recordable indications
26MS(1)C-12	PIPE TO PIPE	B-J	89.11	THK	1MSU-100	NA				Min. reading was 1.0". per FDDR # KK1-299, rev 1, the min acceptable reading after 10 years is 0.9708".

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # MS-103										
26MS(1)C-15	ELL TO PIPE	B-J	B9.11	THK	1MSU-101	NA				Min. reading was 1.0" FDDR # KK1-299, REV 1 Requires a 0.9708" wall after 10 years.
26MS(1)C-16	PIPE TO VALVE	B-J	B9.11	VOL	1MSU-098	45				No recordable indications
MS-V-22C/2MS(9)-4	DRAIN CONN	B-J	B9.32	SUR	1MSH-061	ACC				No recordable indications
MS-V-22C-BLT	VALVE BOLTING	B-G-2	B7.70	VT-1	1MSV-153	ACC				No recordable indications
MS-V-28C-BLT	VALVE BOLTING	B-G-2	B7.70	VT-1	1MSV-152	ACC				No recordable indications
MS-PB-103(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # MS-104										
26MS(1)D-1	NZ / TRANSITION	B-J	B9.11	SUR	1MSH-064	ACC				No recordable indications
26MS(1)D-1	NZ / TRANSITION	B-J	B9.11	VOL	1MSU-109	44				No recordable indications
26MS(1)D-2	TRANSITION/PIPE	B-J	B9.11	SUR	1MSH-064	ACC				No recordable indications
26MS(1)D-2	TRANSITION/PIPE	B-J	B9.11	VOL	1MSU-106	44				No recordable indications
MS-PB-104(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # MS-105										
MS-PB-105(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # MS-106										
MS-2619-210	STRUT	IWF	F-X	VT3H	1HV-0281	ACC				No recordable indications
MS-2619-26	STRUT	IWF	F-X	VT3H	1HV-0280	ACC				No recordable indications
MS-2619-310	STRUT	IWF	F-X	VT3H	1HV-0296				ACC	VT-3 examination identified as misaligned. Engineering evaluation determined it was acceptable.
MS-2619-312	STRUT	IWF	F-X	VT3H	1HV-0279	ACC				No recordable indications

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # MS-106										
MS-2619-319	STRUT	IWF	F-X	VT3H	1HV-0277	ACC				No recordable indications
MS-2619-318	STRUT	IWF	F-X	VT3H	1HV-0278	ACC				No recordable indications
MS-2619-320	SPRING	IWF	F-X	VT3H	1HV-0294	ACC				No recordable indications
MS-2619-44	SPRING	IWF	F-X	VT3H	1HV-0298				ACC	VT-3 examination identified as misaligned. Engineering evaluation determined it was acceptable per pipe calc.
MS-2619-46	STRUT	IWF	F-X	VT3H	1HV-0283	ACC				No recordable indications
MS-2619-45	PSA-1/4 SNUBBER	IWF	F-X	VT3H	1HV-0286	ACC				No recordable indications
MS-2619-43	SPRING	IWF	F-X	VT3H	1HV-0297				ACC	VT-3 identified as misaligned. Engineering evaluation determined that it was acceptable based on he pipe calc.
MS-2619-42A	STRUT	IWF	F-X	VT3H	1HV-0282	ACC				No recordable indications
MS-2619-42C	PSA-1/2 SNUBBER	IWF	F-X	VT3H	1HV-0285	ACC				No recordable indications
MS-PB-106(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # MS-202										
26MS(1)B-19	VALVE TO PIPE	C-F-2	C5.51	VOL	1MSU-117	44				No recordable indications
26MS(1)B-19A	PIPE TO PIPE	C-F-2	C5.51	VOL	1MSU-118	44				No recordable indications
Drawing # MS-203										
26MS(1)C-19	VALVE TO PIPE	C-F-2	C5.51	VOL	1MSU-119	44				No recordable indications.
26MS(1)C-20	PIPE TO PIPE	C-F-2	C5.51	VOL	1MSU-120	44				No recordable indications

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<u>Identification No.</u>	<u>Description</u>	<u>Code Cate.</u>	<u>Item No.</u>	<u>Meth</u>	<u>Data Rpt. No.</u>	<u>Noind</u>	<u>Insig</u>	<u>Geom</u>	<u>Other</u>	<u>Remarks</u>
Drawing # MS-204										
26MS(1)D-18	VALVE TO PIPE	C-F-2	C5.51	VOL	1MSU-121	44				No recordable indications
26MS(1)D-19	PIPE TO PIPE	C-F-2	C5.51	VOL	1MSU-122	44				No recordable indications
Drawing # MS-205										
MS-180(W)	WELDED SADDLE	C-C	C3.40	SUR	1MSH-068	ACC				No recordable indications
Drawing # MS-301										
MS-PB-301(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	GR3201	ACC				No unacceptable indications
Drawing # MS-302										
MS-PB-302(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	CJ2403	ACC				No unacceptable indications
Drawing # MS-303										
MS-PB-303(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	GR3201	ACC				No unacceptable indications
Drawing # MS-304										
MSRV-4A-10	STRUT	IWF	F-X	VT3H	1HV-0293	ACC				No recordable indications
MS-PB-304(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	CJ2303	ACC				No unacceptable indications
Drawing # MS-305										
MS-PB-305(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	GR3201	ACC				No unacceptable indications
Drawing # MS-306										
MS-PB-306(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	CJ2103	ACC				No unacceptable indications
Drawing # MS-307										
MS-PB-307(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	GR3201	ACC				No unacceptable indications
Drawing # MS-308										
MS-PB-308(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	CJ2603	ACC				No unacceptable indications

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<u>Identification No.</u>	<u>Description</u>	<u>Code Cate.</u>	<u>Item No.</u>	<u>Meth</u>	<u>Data Rpt. No.</u>	<u>Noind</u>	<u>Insig</u>	<u>Geom</u>	<u>Other</u>	<u>Remarks</u>
Drawing # MS-309										
MS-PB-309(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	CH1003	ACC				No unacceptable indications
Drawing # MS-310										
MS-PB-310(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	GR3201	ACC				No unacceptable indications
Drawing # MS-311										
MS-PB-311(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	CJ2203	ACC				No unacceptable indications
Drawing # MS-312										
MS-PB-312(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	GR3201	ACC				No unacceptable indications
Drawing # MS-313										
MS-PB-313(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	CH8003	ACC				No unacceptable indications
Drawing # MS-314										
MS-PB-314(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	GR3201	ACC				No unacceptable indications
Drawing # MS-315										
MS-PB-315(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	CJ2003	ACC				No unacceptable indications
Drawing # MS-316										
MS-PB-316(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	CJ2703	ACC				No unacceptable indications
Drawing # MS-317										
MS-PB-317(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	GR3201	ACC				No unacceptable indications
Drawing # MS-318										
MS-PB-318(H)	HYDRO PRES BNDR	D-A	D1.10	VT-2	GR3201	ACC				No unacceptable indications

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RCC-201										
RCC-PB-201(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	1RCV-019	ACC				No recordable indications
Drawing # RCC-202										
RCC-PB-202(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	1RCV-019	ACC				No recordable indications
Drawing # RCC-301										
RCC-909N	STRUT	IWF	F-X	VT3H	1HV-0299		ACC			Jam nut loose. Engineering evaluation determined strut was operable. Nut was tightened and staked.
Drawing # RCIC-101										
10RCIC(12)-8	PIPE TO PIPE	B-J	B9.11	VOL	1RIU-072				45	270-0 degree 60% and 90% DAC ID geometry
10RCIC(12)-9	PIPE TO ELL	B-J	B9.11	SUR	1RIM-035	ACC				No recordable indications
10RCIC(12)-9	PIPE TO ELL	B-J	B9.11	VOL	1RIU-064	43				No recordable indications
10RCIC(12)-10	ELL TO PIPE	B-J	B9.11	SUR	1RIM-035	ACC				No recordable indications
10RCIC(12)-10	ELL TO PIPE	B-J	B9.11	VOL	1RIU-065	43				0-90 degree 96% DAC ID geometry
10RCIC(12)-10A	PIPE TO PIPE	B-J	B9.11	SUR	1RIM-035	ACC				No recordable indications
10RCIC(12)-10A	PIPE TO PIPE	B-J	B9.11	VOL	1RIU-066				43	0-90 degree 65% DAC ID geometry
10RCIC(12)-11	PIPE TO TEE	B-J	B9.11	VOL	1RIU-067	43				No recordable indications
10RCIC(12)-12	TEE TO PIPE	B-J	B9.11	VOL	1RIU-068	43				No recordable indications
10RCIC(12)-13	PIPE TO ELL	B-J	B9.11	SUR	1RIM-035	ACC				No recordable indications
10RCIC(12)-13	PIPE TO ELL	B-J	B9.11	VOL	1RIU-069				43	90-180 degree 95% DAC ID geometry
10RCIC(12)-14	ELL TO PIPE	B-J	B9.11	SUR	1RIM-035	ACC				No recordable indications
10RCIC(12)-14	ELL TO PIPE	B-J	B9.11	VOL	1RIU-070				43	270-0 degree 60% DAC ID geometry
10RCIC(12)-15	PIPE TO PEN	B-J	B9.11	VOL	1RIU-071				43	0-90 degree 55% DAC ID geometry

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RCIC-101										
10RCIC(12)-16	PEN TO ELL	B-J	B9.11	SUR	1R1M-036	ACC				No recordable indications
10RCIC(12)-16	PEN TO ELL	B-J	B9.11	VOL	1RIU-073		45			0-90 degree 60% DAC ID geometry.
10RCIC(12)-17	ELL TO PIPE	B-J	B9.11	SUR	1R1M-036	ACC				No recordable indications
10RCIC(12)-17	ELL TO PIPE	B-J	B9.11	VOL	1RIU-074		44			270-0 degree 96% DAC ID Geometry
10RCIC(12)-18	ELL TO VALVE	B-J	B9.11	VOL	1RIU-075	45				No recordable indications
RCIC-PB-101(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # RCIC-102										
6RCIC(1)-448D	FLANGE BOLTING	B-G-2	87.50	VT-1	1RIV-017	ACC				No recordable indications. PSI of new bolting material
RCIC-PB-102(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	FS95	ACC				No unacceptable indications
RCIC-PB-102(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # RCIC-201										
RCIC-PB-201(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.31	ACC				Packing leaks only
Drawing # RCIC-203										
RCIC-PB-203(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.31	ACC				Packing leaks only
Drawing # RCIC-204										
RCIC-P-1S	PHP NOZZLE WELD	C-G	C6.10	SUR	1R1M-037	ACC				No recordable indications
RCIC-PB-204(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.31	ACC				Packing leaks only
Drawing # RCIC-205										
RCIC-P-1D	PHP NOZZLE WELD	C-G	C6.10	SUR	1R1M-038	ACC				No recordable indications
RCIC-PB-205(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.31	ACC				Packing leaks only

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RFW-101										
24RFW(1)A-5	VALVE TO PIPE	B-J	B9.11	VOL	1FWU-137		45,60			Intermittent 0-360 degrees at varying lower amplitudes
12RFW(1)AC-11	SE/EX-SE/STUB	B-F	B5.10	VOL	R-R9-026		45,60			ID and root geometry recorded. Post MSIP examination.
12RFW(1)AC-12	SE/STUB TO SE	B-F	B5.10	VOL	R-R9-025		45,60			ID and root geometry recorded. Post MSIP examination.
12RFW(1)AC-13	SE TO N4	B-F	B5.10	VOL	R-R9-029		45,60			Beam redirect, ID and root geometry recorded. Downstream examination limited to a "W" of 1.6" from weld centerline due to nozzle configuration. Post MSIP examination.
12RFW(1)AB-9	SE EXT-SE STUB	B-F	B5.10	VOL	R-R9-021		45,60			Beam redirect, ID and root geometry recorded. Pre MSIP examination
12RFW(1)AB-9	SE EXT-SE STUB	B-F	B5.10	VOL	R-R9-042		45,60			Beam redirect, ID and root geometry recorded. Post MSIP examination.
12RFW(1)AB-10	SE STUB TO SE	B-F	B5.10	VOL	R-R9-023		45,60			Beam redirect, ID and root geometry recorded. Pre MSIP examination.
12RFW(1)AB-10	SE STUB TO SE	B-F	B5.10	VOL	R-R9-047		45,60			Beam redirect. ID and root geometry recorded. Post MSIP examination.
12RFW(1)AB-11	SE TO N4	B-F	B5.10	VOL	R-R9-051		45			Beam redirect and root geometry recorded. Exam limited to a "W" of 1.10" from weld CL due to nozzle transition. Post MSIP exam.
12RFW(1)AA-9	SE EXT-SE STUB	B-F	B5.10	VOL	R-R9-020		45,60			Beam redirect, ID and root geometry recorded. Pre MSIP examination.
12RFW(1)AA-9	SE EXT-SE STUB	B-F	B5.10	VOL	R-R9-038		45,60			Beam redirect, ID and root geometry recorded. Post MSIP examination.

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RFW-101										
12RFW(1)AA-10	SE STUB-SE	B-F	85.10	VOL	R-R9-028		45,60			Beam redirect, ID and root geometry recorded. Pre MSIP examination.
12RFW(1)AA-10	SE STUB-SE	B-F	85.10	VOL	R-R9-050		45,60			Beam redirect, ID and root geometry recorded. Post MSIP examination.
12RFW(1)AA-11	SE TO N4	B-F	85.10	VOL	R-R9-049		45,60			ID and root geometry recorded. Downstream examination limited to a "W" of 1.8" from weld centerline due to nozzle configuration. Post MSIP examination.
RFW-PB-101(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # RFW-102										
24RFW(1)B-5	VALVE TO PIPE	B-J	89.11	VOL	1FWU-138		45,60			Intermittent 0-360 degree at varying lower amplitudes
24RFW(1)B-5	VALVE TO PIPE	B-J	89.11	SUR	1FWM-037	ACC				No recordable indications
12RFW(1)BF-12	SE EXT-SE STUB	B-F	85.10	VOL	R-R9-046		45			Beam redirect and root geometry were recorded. Post MSIP exam.
12RFW(1)BF-13	SE STUB TO SE	B-F	85.10	VOL	R-R9-030		45			Beam redirect and root geometry from the upstream side of the weld were recorded. Post MSIP exam.
12RFW(1)BF-14	SE TO N4	B-F	85.10	VOL	R-R9-034		45,60			ID and root geometry recorded. Downstream examination limited to a "W" of 1.5" from weld centerline due to nozzle configuration. Post MSIP examination.
12RFW(1)BE-9	SE EXT-SE STUB	B-F	85.10	VOL	R-R9-039		45			Beam redirect and root geometry recorded. Post MSIP exam.
12RFW(1)BE-10	SE STUB TO SE	B-F	85.10	VOL	R-R9-040		45			Beam redirect and root geometry recorded. Post MSIP exam.

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RFW-102										
12RFW(1)BE-11	SE TO N4	B-F	B5.10	VOL	R-R9-032		45			Surface geometry from the upstream side of weld was recorded. Exam limited to a "W" of 1.10" from Weld CL due to nozzle transition. Post MSIP exam.
12RFW(1)BD-9	SE EXT-SE STUB	B-F	B5.10	VOL	R-R9-024		45,60			Beam redirect, ID and root geometry recorded. Post MSIP examination.
12RFW(1)BD-10	SE STUB TO SE	B-F	B5.10	VOL	R-R9-027		45			Beam redirect recorded. Post MSIP examination
12RFW(1)BD-11	SE TO N4	B-F	B5.10	VOL	R-R9-031		45,60			ID and root geometry recorded. Downstream examination limited to a "W" of 1.6" from weld centerline due to nozzle configuration. Post MSIP examination.
RFW-PB-102(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications.
Drawing # RFW-103										
6RFW(11)-3	ELL TO PIPE	B-J	B9.11	VOL	1FWU-136	45	60			45 Degree no recordable indications. 60 degree 90% DAC scan surface 2 beam direction A.
RFW-PB-103(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # RHR-101										
12LPCI(1)A-5	SE EXT TO SE	B-F	B5.50	VOL	R-R9-036		45,60			Beam redirect, ID and root geometry recorded. Pre MSIP examination
12LPCI(1)A-5	SE EXT TO SE	B-F	B5.50	VOL	R-R9-048		45,60			Beam redirect, ID and root geometry recorded. Post MSIP examination.

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RHR-101										
12LPCI(1)A-6	SE TO NOZZLE	B-F	85.10	VOL	R-R9-044		45,60			ID geometry recorded. Downstream weld limited to a "W" of 0.90" from centerline due to nozzle configuration. Post MSIP examination.
RHR-PB-101(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # RHR-102										
14LPCI(1)B-1	VLV TO PIPE	B-J	89.11	SUR	1RHM-088	ACC				No recordable indications
14LPCI(1)B-1	VLV TO PIPE	B-J	89.11	VOL	1RHU-134	45				No recordable indications
14LPCI(1)B-2	PIPE TO ELL	B-J	89.11	SUR	1RHM-088	ACC				No recordable indications
14LPCI(1)B-2	PIPE TO ELL	B-J	89.11	VOL	1RHU-134	45				No recordable indications
RHR-521	SPRING	IWF	F-X	VT3H	1HV-0290	ACC				No recordable indications
12LPCI(1)B-5	SE EXT TO SE	B-F	85.50	VOL	R-R9-018		45,60			Beam redirect, ID and root geometry recorded. Upstream examination limited to a "W" of 1.7" from weld centerline due to safe end taper configuration. Post MSIP examination
12LPCI(1)B-6	SE TO NOZZLE	B-F	85.10	VOL	R-R9-019		45,60			ID geometry recorded. Downstream examination limited to a "W" of 1.3" from centerline due to nozzle configuration. Post MSIP examination.
RHR-PB-102(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No recordable indications

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RHR-103										
14LPCI(1)C-2	PIPE TO ELL	B-J	B9.11	SUR	1RHM-085	ACC				No recordable indications
14LPCI(1)C-2	PIPE TO ELL	B-J	B9.11	VOL	1RHU-133	45				No recordable indications
12LPCI(1)C-5	SE EXT TO SE	B-F	B5.50	VOL	R-R9-045		45,60			Beam redirect, ID and root geometry recorded. Post MSIP examination.
12LPCI(1)C-6	SE TO NOZZLE	B-F	B5.10	VOL	R-R9-043		45,60			ID geometry recorded. Downstream examination limited to a "W" of 1.6" from weld centerline due to nozzle configuration. Post MSIP examination.
RHR-PB-103(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # RHR-104										
RHR-V-8-BDY	VALVE BODY	B-M-2	B12.40	VT-3	1RHV-035	ACC				Minor linear indication on valve body seat at 5 o'clock looking east. Not part of pressure boundary.
RHR-PB-104(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	LG1201	ACC				No unacceptable indications
Drawing # RHR-105										
12RHR(1)A-1D	VALVE TO PIPE	B-J	B9.11	SUR	1RHM-083	ACC				No recordable indications
12RHR(1)A-1D	VALVE TO PIPE	B-J	B9.11	VOL	1RHU-127	43				No recordable indications
12RHR(1)A-2	PIPE TO ELL	B-J	B9.11	SUR	1RHM-083	ACC				No recordable indications
12RHR(1)A-2	PIPE TO ELL	B-J	B9.11	VOL	1RHU-128	43				No recordable indications
12RHR(1)A-3	ELL TO PIPE	B-J	B9.11	SUR	1RHM-083	ACC				No recordable indications
12RHR(1)A-3	ELL TO PIPE	B-J	B9.11	VOL	1RHU-129	43				No recordable indications
12RHR(1)A-4	PIPE TO ELL	B-J	B9.11	SUR	1RHM-083	ACC				No recordable indications
12RHR(1)A-4	PIPE TO ELL	B-J	B9.11	VOL	1RHU-130	43				No recordable indications
12RHR(1)A-5	ELL TO PEN	B-J	B9.11	SUR	1RHM-083	ACC				No recordable indications
12RHR(1)A-5	ELL TO PEN	B-J	B9.11	VOL	1RHU-131	43				No recordable indications
RHR-PB-105(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RHR-106										
12RHR(1)B-10	VLV TO SE	B-F	B5.50	SUR	1RHP-070	ACC				No recordable indications 45 shear recorded counterbore geometry 360 degree at varying amplitudes. 60 RL recorded root geometry 360 degree at varying amplitudes.
12RHR(1)B-10	VLV TO SE	B-F	B5.50	VOL	R-R9-060			45,60		
RHR-PB-106(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # RHR-201										
12RHR(1)A-1C	FLANGE TO PIPE	C-F-2	C5.51	SUR	1RHM-082	ACC				No recordable indications 270-360 degree 80% DAC ID geometry
12RHR(1)A-1C	FLANGE TO PIPE	C-F-2	C5.51	VOL	1RHU-126		43			
RHR-PB-201(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.26	ACC				No recordable indications
Drawing # RHR-202										
RHR-PB-202(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.26	ACC				No recordable indications
Drawing # RHR-203										
RHR-PB-203(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.26	ACC				No recordable indications
Drawing # RHR-204										
RHR-597	STRUT	IWF	F-X	VT3H	1HV-0295	ACC				No recordable indications
Drawing # RHR-205										
RHR-PB-205(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.26	ACC				No recordable indications
Drawing # RHR-206										
RHR-PB-206(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.26	ACC				No recordable indications
Drawing # RHR-207										
RHR-968N	ANCHOR	IWF	F-X	VT3H	1HV-0308	ACC				No recordable indications

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RHR-207										
RHR-540	STRUT	IWF	F-X	VT3H	1HV-0310	ACC				No recordable indications
RHR-539	STRUT	IWF	F-X	VT3H	1HV-0309	ACC				No recordable indications
RHR-551	PSA-3 SN(2)	IWF	F-X	VT3H	1HV-0314	ACC				No recordable indications
RHR-553	STRUT	IWF	F-X	VT3H	1HV-0302	ACC				No recordable indications
RHR-552	STRUT	IWF	F-X	VT3H	1HV-0303				ACC	Lower jam nut loose. Strut operable. Nut tightened and staked.
RHR-554	STRUT	IWF	F-X	VT3H	1HV-0305	ACC				No recordable indications
RHR-555	SPRING	IWF	F-X	VT3H	1HV-0304	ACC				No recordable indications
RHR-555(W)	4 WELDED LUGS	C-C	C3.40	SUR	1RHM-093	ACC				No Recordable Indications
RHR-1002N	PSA-3 SN(2)	IWF	F-X	VT3H	1HV-0306	ACC				No recordable indications
RHR-556	STRUT	IWF	F-X	VT3H	1HV-0301	ACC				No recordable indications
RHR-980N	PSA-10 SHUBBER	IWF	F-X	VT3H	1HV-0307	ACC				No recordable indications
RHR-928N	SPRING	IWF	F-X	VT3H	1HV-0270	ACC				No recordable indications
RHR-945N(W)	8 WELDED LUGS	C-C	C3.40	SUR	1RHM-091	ACC				No recordable indications
RHR-925N(W)	1 WELDED LUG	C-C	C3.40	SUR	1RHM-090	ACC				No recordable indications
RHR-925N	SPRING	IWF	F-X	VT3H	1HV-0284	ACC				No recordable indications
RHR-1020N	STRUT	IWF	F-X	VT3H	1HV-0259	ACC				No recordable indications
RHR-927N	SPRING	IWF	F-X	VT3H	1HV-0260	ACC				No recordable indications
RHR-967N	ANCHOR	IWF	F-X	VT3H	1HV-0264	ACC				No recordable indications
RHR-967N(W)	WELDED SADDLE	C-C	C3.40	SUR	1RHM-089	ACC				No recordable indications

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RHR-207										
RHR-558	PSA-3 SNUBBER	IWF	F-X	VT3H	1HV-0320	ACC				No recordable indications
RHR-557(W)	8 WELDED LUGS	C-C	C3.40	SUR	1RHM-092	ACC				No recordable indications
RHR-557	STRUT	IWF	F-X	VT3H	1HV-0322	ACC				No recordable indications
RHR-559	SPRING	IWF	F-X	VT3H	1HV-0319	ACC				No recordable indications
RHR-562	PSA-3 SNUBBER	IWF	F-X	VT3H	1HV-0317	ACC				No recordable indications
RHR-561	STRUT	IWF	F-X	VT3H	1HV-0323	ACC				No recordable indications
RHR-563	PSA-1 SN(2)	IWF	F-X	VT3H	1HV-0316	ACC				No recordable indications
RHR-560	SPRING	IWF	F-X	VT3H	1HV-0327	ACC				No recordable indications
RHR-461	SPRING	IWF	F-X	VT3H	1HV-0328				ACC	Spring setting not within 10% of PSI value. Engineering evaluation determined spring is operable.
RHR-565	STRUT	IWF	F-X	VT3H	1HV-0315	ACC				No recordable indications
RHR-564	STRUT	IWF	F-X	VT3H	1HV-0326	ACC				No recordable indications
RHR-459	STRUT	IWF	F-X	VT3H	1HV-0324	ACC				No recordable indications
RHR-52	PSA-3 SNUBBER	IWF	F-X	VT3H	1HV-0318	ACC				No recordable indications
RHR-998N	PSA-3 SNUBBER	IWF	F-X	VT3H	1HV-0321	ACC				No recordable indications
16RHR(5)B-6	PIPE TO VALVE	C-F-2	C5.51	SUR	1RHM-084	ACC				No recordable indications
16RHR(5)B-6	PIPE TO VALVE	C-F-2	C5.51	VOL	1RHU-132	45				No recordable indications
RHR-937N	RIGID	IWF	F-X	VT3H	1HV-0263	ACC				No recordable indications
RHR-962N	PSA-10 SNUBBER	IWF	F-X	VT3H	1HV-0269	ACC				No recordable indications

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RHR-207										
RHR-931N	SPRING	IWF	F-X	VT3H	1HV-0262	ACC				No recordable indications
RHR-906N	PSA-10 SN(2)	IWF	F-X	VT3H	1HV-0268	ACC				No recordable indications
RHR-914N	PSA-10 SNUBBER	IWF	F-X	VT3H	1HV-0266	ACC				No recordable indications
RHR-183	PSA-10 SN(2)	IWF	F-X	VT3H	1HV-0267	ACC				No recordable indications
RHR-932N	SPRING	IWF	F-X	VT3H	1HV-0265	ACC				No recordable indications
RHR-913N	PSA-3 SNUBBER	IWF	F-X	VT3H	1HV-0261	ACC				No recordable indications
RHR-903N	PSA-3 SNUBBER	IWF	F-X	VT3H	1HV-0258	ACC				No recordable indications
RHR-219	SPRING	IWF	F-X	VT3H	1HV-0257	ACC				No recordable indications
RHR-PB-207(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.27	ACC				No recordable indications
Drawing # RHR-209										
RHR-PB-209(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.27	ACC				No recordable indications
Drawing # RHR-210										
RHR-PB-210(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.28	ACC				No recordable indications
Drawing # RHR-211										
RHR-PB-211(H)	HYDRO PRES BNDR	C-H	C7.21	VT-2	7.4.0.5.28	ACC				No recordable indications
Drawing # RHR-214										
BS-1	HEATXCHG SUP WD	C-C	C3.10	SUR	1RHM-086	ACC				No recordable indications. Limited examination due to bottom of lugs being inaccessible. Lugs at 0, 90 and 270 degree.
BS-1	HEATXCHG SUP WD	C-C	C3.10	SUR	1RHM-087		ACC			Lug at 180 degree. Linear 3/16"

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<u>Identification No.</u>	<u>Description</u>	<u>Code Cate.</u>	<u>Item No.</u>	<u>Meth</u>	<u>Data Rpt. No.</u>	<u>Noind</u>	<u>Insig</u>	<u>Geom</u>	<u>Other</u>	<u>Remarks</u>
Drawing # RPV-101										
AD	#3-#4 SC CRC WD	B-A	B1.11	VOL	R-R9-G06	0.45,60				Examination coverage restricted in 8 areas where RPV stabilizer lugs are attached to vessel. Scan coverage = 83.6%. No recordable indications.
AE	#4 SC-FL CRC WD	B-A	B1.30	VOL	R-R9-G05	0,45,60				No recordable indications. Due to flange configuration examination limited to shell side of weld. Scan coverage = 49.4%.
BN	#4 SC VRT W@330	B-A	B1.12	VOL	R-R9-G02	0,45,60				No recordable indications. This examination covered 41.2% of scan volume. Remaining volume examination reported in R-R8-024.
BP	#4 SC VRT W@ 90	B-A	B1.12	VOL	R-R9-G04	0,45,60				No recordable indications. This scan covered 46.2% of volume. Remaining volume examined in report R-R9-027.
BR	#4 SC VRT W@210	B-A	B1.12	VOL	R-R9-G03	0,45,60				No recordable indications. This scan covered 50.2% of weld. Remaining weld scanned in report R-R8-026.
N4-90-IR	FW NZ-IR @ 90	B-D	B3.100	VOL	1RPU-124	70,25				No recordable indications }
N4-90-NB	FW NZ BORE @ 90	B-D	B3.100	VOL	1RPU-124	25,75				No recordable indications
4JP(NZ)A-1	N-9 NZ-SE @ 105	B-F	B5.10	VOL	R-R9-013	45,60				No recordable indications. Upstream examination limited to a "W" of 2.05" due to nozzle configuration. Post MSIP examination.
4JP(NZ)A-2	N9 SE-PN SL@105	B-F	B5.50	VOL	R-R9-014	45,60				No recordable indications. Post MSIP examination.

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insp	Geom	Other	Remarks
Drawing # RPV-101										
4JP(NZ)B-1	N9 NZ-SE @ 285	B-F	B5.10	VOL	R-R9-015	45,60				No recordable indications. Upstream examination limited to a "W" of 2.05" from weld centerline due to nozzle configuration. Post MSIP examinations
4JP(NZ)B-2	N9 SE PN SL@285	B-F	B5.50	VOL	R-R9-016	45,60				No recordable indications. Post MSIP examination.
STAB-BRACKET-0	STAB LUG @ 0	B-H	B8.10	SUR	1RPP-010	ACC				No recordable indications
STAB-BRACKET-45	STAB LUG @ 45	B-H	B8.10	SUR	1RPP-011	ACC				No recordable indications
STAB-BRACKET-90	STAB LUG @ 90	B-H	B8.10	SUR	1RPP-011	ACC				No recordable indications
STAB-BRACKET-135	STAB LUG @ 135	B-H	B8.10	SUR	1RPP-009		ACC			Rounded indications 1/16" to 3/32"
STAB-BRACKET-180	STAB LUG @ 180	B-H	B8.10	SUR	1RPP-011	ACC				No recordable indications
STAB-BRACKET-225	STAB LUG @ 225	B-H	B8.10	SUR	1RPP-010	ACC				No recordable indications
STAB-BRACKET-270	STAB LUG @ 270	B-H	B8.10	SUR	1RPP-010	ACC				No recordable indications
STAB-BRACKET-315	STAB LUG @ 315	B-H	B8.10	SUR	1RPP-010	ACC				No recordable indications
N12	VESS INST PENT	B-E	B4.13	VT-2	CL29	ACC				VT-2 of N12B
N14	VESS INST PENT	B-E	B4.13	VT-2	CL29	ACC				VT-2 of N14B and N14C
RPV BUSHING	RPV BUSHING	B-G-1	B6.50	VT-1	1RPV-168		ACC			Very light minor corrosion
RPV THREADS	-RPV FLG B-G-1	B6.40	VOL	1RPU-123	0					Exam covers area between stud holes 1 thru 37. No recordable indications
JET PUMP BEAMS	JP HLD DWN BMS	N/A	N/A	VOL	NA	ACC				Beams replaced at R9. This is PSI exam of replacement beams performed before installation.

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RPV-101										
JET PUMP BEAMS	JP HLD DWN BMS	N/A	N/A	VT-1	1RPV-204	ACC				No abnormal indications noted.
JET PUMP SENSING LINES	JP SENSING LINE	N/A	SPEC	VT-1	1RPV-204				ACC	A linear indication was found in sensing line #18 near the upper standoff. Further investigation determined that the indication was a crack. The indication and resolution are documented in PER 294-0574. GE determined that the crack had likely occurred early in plant life and at this time was not growing. Analysis supported not repairing crack at this time.
repairing										
INCORE DRY TUBES	INCORE DRY TUBE	N/A	SPEC	VT-1	1RPV-204				ACC	Erosion of tubes noted. Evaluation by GE condition was acceptable.
CORE SPRAY SPARGERS	CORE SPRAY SPG	N/A	N/A	VT-1	1RPV-204	ACC				No recordable indications
FEEDWATER SPARGERS	FW SPARGERS	N/A	N/A	VT-1	1RPV-204	ACC				No recordable indications
SHROUD	NA		VOL	R-R9-053	ACC R-R9-059	ACC				No recordable indications No recordable indications
RPV INTERIOR	RPV INTERIOR	B-N-1	B13.10	VT-3	1RPV-204	ACC				No abnormal indications
RPV CORE SUPPORTS	CORE SUPPORTS	B-N-2	B13.21	VT-1	1RPV-204	ACC				No abnormal indications
RPV INTERIOR ATTACH	INTERIOR ATTACH	B-N-2	B13.20	VT-1	1RPV-204	ACC				No abnormal indications
RPV-PB-101(H)	HYDRO PRES BNDR	B-P	B15.11	VT-2	CL29	ACC				No recordable indications
Drawing # RPV-102										
AG	TOP HD-FLG WELD	B-A	B1.40	SUR	1RPH-042	ACC				No recordable indications
AG	TOP HD-FLG WELD	B-A	B1.40	VOL	R-R9-G01	0,45,60				No recordable indications. Scan from 0 degree CW to 180 degrees. Scan coverage = 95.1%.
CRD	PEN (185EA)	B-E	B4.12	VT-2	CL29	ACC				Nozzle to Vessel welds in quadrant 270 to 0. No unacceptable indications

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Drawing # RPV-102										
CRD HOUSING 18-59 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined cross sectional area reduced less than 5%.
CRD HOUSING 18-59 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			
CRD HOUSING 22-59 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined cross sectional area reduced less than 5%.
CRD HOUSING 22-59 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			
CRD HOUSING 18-47 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 18-47 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			
CRD HOUSING 30-47 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-184	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined cross sectional area reduced less than 5%.
CRD HOUSING 30-47 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			
CRD HOUSING 18-43 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-172	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined cross sectional area reduced less than 5%.
CRD HOUSING 18-43 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			
CRD HOUSING 22-43 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-171	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 22-43 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			
CRD HOUSING 30-43 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-170					PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 30-43 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			

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Drawing # RPV-102										
CRD HOUSING 42-43 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-181	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%
CRD HOUSING 42-43 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			
CRD HOUSING 46-39 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%
CRD HOUSING 46-39 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			
CRD HOUSING 54-39 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 54-39 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			
CRD HOUSING 42-35 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-183	ACC				PSI of new cap screws for new drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 42-35 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			
CRD HOUSING 02-31 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 02-31 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			
CRD HOUSING 10-31 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-185	ACC				PSI on new cap screws Pitting corrosion on shank. Engineering evaluation determined cross sectional reduced less than 5%.
CRD HOUSING 10-31 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			
CRD HOUSING 30-31 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%
CRD HOUSING 30-31 BLT	CRD HOUSING BLT	B-G-2	87.80	VT-1	1RPV-207		ACC			

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Washington Public Power Supply System - WNP-2
ISI Examination Results - R9

Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RPV-102										
CRD HOUSING 42-31 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined cross sectional area reduced less than 5%
CRD HOUSING 42-31 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 58-31 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 58-31 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 02-27 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 02-27 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 26-27 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive. Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 26-27 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 38-27 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined cross sectional area reduced less than 5%.
CRD HOUSING 38-27 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 50-27 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 50-27 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 22-23 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined cross sectional area reduced less than 5%.
CRD HOUSING 22-23 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			

Appendix B
Washington Public Power Supply System - WNP-2
ISI Examination Results - R9

Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RPV-102										
CRD HOUSING 30-23 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive. Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 30-23 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 38-23 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive. Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 38-23 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 18-19 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-185	ACC				PSI on new cap screws Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 18-19 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 22-19 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-185	ACC				PSI on new cap screws Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 22-19 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 58-19 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 58-19 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 26-15 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shanks. Engineering evaluation determined cross sectional area reduced less than 5%.
CRD HOUSING 26-15 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 34-15 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-182	ACC				PSI of new cap screws for drive. Pitting corrosion on shank. Engineering evaluation determined cross sectional area reduced less than 5%.
CRD HOUSING 34-15 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			

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 ISI Examination Results - R9

Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RPV-102										
CRD HOUSING 22-11 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shank. Engineering evaluation determined cross sectional area reduced less than 5%.
CRD HOUSING 22-11 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 22-07 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive Pitting corrosion on shanks. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 22-07 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
CRD HOUSING 26-07 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-183	ACC				PSI of new cap screws for drive. Pitting corrosion on shank. Engineering evaluation determined that cross sectional area reduced less than 5%.
CRD HOUSING 26-07 BLT	CRD HOUSING BLT	B-G-2	B7.80	VT-1	1RPV-207		ACC			
INCORE	INCOR PEN(55EA)	B-E	B4.11	VT-2	CL29	ACC				Nozzle to vessel welds in quadrant 270 to 0. No unacceptable indications
RPV-PB-102(H)	HYDRO PRES BNDR	B-P	B15.10	VT-2	CL29	REJ				Several CRD flanges leaking. Repaired retested under work order MH33
RPV-PB-102(H)	HYDRO PRES BNDR	B-P	B15.10	VT-2	MH33	ACC				VT-2 of leaking CRD flanges found under CL29. No unacceptable indications

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Washington Public Power Supply System - WNP-2
ISI Examination Results - R9

Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RRC-101										
24RRC(2)A-1	NOZ TO SE	B-F	B5.10	VOL	R-R9-017		45,60			Beam redirect and root geometry recorded. Upstream examination limited to a "W" of 1.8" from weld centerline due to nozzle configuration. Post MSIP
24RRC(1)A-13/8CAP	PIPE TO SWL	B-J	B9.31	SUR	1RRP-133	ACC				No recordable indications. This exam completes that portion of the weld covered by RRC-SA-66. See report 1RRP-070 180-360 covered. No recordable indications. Covers 0-180. See report 1RRP-133.
24RRC(1)A-13/8CAP	PIPE TO SWL	B-J	B9.31	SUR	1RRP-134	ACC				No recordable indications. See report 1RRU-134. No examination from the downstream side due to sweep-o-let configuration.
24RRC(1)A-13/8CAP	PIPE TO SWL	B-J	B9.31	VOL	R-R9-052		45,60			No recordable indications. See report 1RRU-134. No examination from the downstream side due to sweep-o-let configuration.
RRC-V-60A-BLT	VALVE BOLTING	B-G-1	B6.210	VOL	1RRU-167	0				No recordable indications
RRC-V-60A-BLT	VALVE BOLTING	B-G-1	B6.210	VT-1	1RRV-029	ACC				No recordable indications. Bolting examined in installed condition under tension
12RRC(1)-N2A-6	SE TO NOZ	B-F	B5.10	VOL	R-R9-004		45,60			Beam redirect and root geometry recorded. Downstream examination limited to a "W" of 1.1" from weld centerline due to nozzle configuration. Post MSIP examination.
12RRC(1)-N2B-6	SE TO NOZ	B-F	B5.10	VOL	R-R9-006		45,60			Beam redirect and ID geometry recorded. Downstream examination limited to a "W" of 0.9" from weld centerline due to nozzle configuration. Post MSIP examination.

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Washington Public Power Supply System - WNP-2
ISI Examination Results - R9

Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RRC-101										
12RRC(1)-N2C-6	SE TO NOZ	B-F	B5.10	VOL	R-R9-007		45,60			ID and root geometry recorded. Downstream examination limited to a "W" of 1.35" from weld centerline due to nozzle configuration. Post MSIP examination.
12RRC(1)-N2D-6	SE TO NOZ	B-F	B5.10	VOL	R-R9-009		45,60			ID and root geometry recorded. Downstream examination limited to a "W" of 1.25" from weld centerline due to nozzle configuration. Post MSIP examination.
12RRC(1)-N2E-6	SE TO NOZ	B-F	B5.10	VOL	R-R9-010		45,60			ID and root geometry recorded. Downstream examination limited to "W" of 1.1" due to nozzle configuration. Post MSIP examination.
RRC-PB-101(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	REJ				RRC-V-67A body to bonnet leak. Repaired retested per work order HJ89
RRC-PB-101(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	HJ89	ACC				No unacceptable indications. Retest of RRC-V-67A
Drawing # RRC-102										
24RRC(2)B-1	NOZ TO SE	B-F	B5.10	VOL	R-R9-012		45,60			ID geometry recorded. Upstream examination was limited to a "W" dimension of 2.10" from weld centerline due to nozzle configuration. Post MSIP examination.
RRC-V-60B-BLT	VALVE BOLTING	B-G-1	B6.210	VOL	1RRU-169	0				No recordable indications. Examined in the installed condition
RRC-V-60B-BLT	VALVE BOLTING	B-G-1	B6.210	VT-1	1RRV-031	ACC				No recordable indications. Bolting examined in installed condition under tension

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Washington Public Power Supply System - WWP-2
ISI Examination Results - R9

Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RRC-102										
12RRC(1)-N2F-6	SE TO NOZ	B-F	85.10	SUR	1RRP-131		ACC			270-360 degree 1/8" round, 270-360 degree 1/8" rounded, 270 -360 degree 1/8" x 1/32" linear, 0-180 degree 1/8" round. Pre MSIP examination
12RRC(1)-N2F-6	SE TO NOZ	B-F	85.10	SUR	1RRP-132		ACC			270-360 degree 1/8" round, 270-360 degree 1/8" round, 270-360 degree 1/8" x 1/32" linear, 0-180 degree 1/8" round. Post MSIP examination. ID and root geometry recorded.
12RRC(1)-N2F-6	SE TO NOZ	B-F	85.10	VOL	R-R9-011		45,60			Downstream examination limited to a "W" of 1.15" from weld centerline due to nozzle configuration. Post MSIP examination.
12RRC(1)-N2G-6	SE TO NOZ	B-F	85.10	VOL	R-R9-008		45,60			ID and root geometry recorded. Downstream examination was limited to a "W" of 0.85" from weld centerline due to nozzle configuration. Post MSIP examination.
12RRC(1)-N2H-6	SE TO NOZ	B-F	85.10	VOL	R-R9-005		45,60			Beam redirect and root geometry recorded. Downstream examination limited to a "W" of 1.2" from weld centerline due to nozzle configuration. Post MSIP examination.
12RRC(1)-N2J-6	SE TO NOZ	B-F	85.10	VOL	R-R9-002		45,60			ID geometry recorded. Downstream examination was limited to a "W" of 1.3" from weld centerline due to nozzle configuration. Post MSIP examination

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Washington Public Power Supply System - WNP-2
ISI Examination Results - R9

Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RRC-102										
12RRC(1)-N2K-6	SE TO NOZ	B-F	B5.10	VOL	R-R9-003		45,60			ID geometry and weld root geometry recorded. Downstream examination was limited to a "W" of dimension 1.05" from weld centerline due to nozzle configuration. Post MSIP examination.
RRC-PB-102(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29					No unacceptable indications
Drawing # RRC-103										
RRC-P-1A-BLT	PUMP BOLTING	B-G-1	B6.180	VOL	1RRU-170	0				No recordable indications. Examined in the installed condition
RRC-P-1A-BLT	PUMP BOLTING	B-G-1	B6.180	VT-1	1RRV-032	ACC				No recordable indications. Examined in the installed condition under tension
RRC-P-1B-BLT	PUMP BOLTING	B-G-1	B6.180	VOL	1RRU-168	0				No recordable indications. Examined in installed condition
RRC-P-1B-BLT	PUMP BOLTING	B-G-1	B6.180	VT-1	1RRV-030	ACC				No recordable indications. Examined installed condition under tension.
RRC-PB-103(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29					No unacceptable indications
Drawing # RRC-104										
RRC-12	SPRING	IWF	F-X	VT3H	1HV-0312	ACC				Minor uniform corrosion on embed plate to I-beam weld. Spring setting at cold mark.
RRC-1C-1(W)	8 WELDED LUGS	B-K-1	B10.10	SUR	1RRM-001	ACC				No recordable indications
RRC-1C-1	PSA-1 SN(2)	IWF	F-X	VT3H	1HV-0300	ACC				No recordable indications
RRC-1C-900N	PSA-1 SN(2)	IWF	F-X	VT3H	1HV-0311	ACC				No recordable indications
RRC-PB-104(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29					No unacceptable indications

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Washington Public Power Supply System - WNP-2
ISI Examination Results - R9

Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RRC-105										
20RRC(6)-8	PIPE TO VALVE	B-J	89.11	VOL	R-R9-001				45,60	Resizing of indication found in R6. Length 3.6" through wall dimension 18.4%.
RRC-PB-105(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29		ACC			No unacceptable indications
Drawing # RRC-106										
RRC-PB-106(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29		ACC			No unacceptable indications
Drawing # RRC-107										
12RRC(7)B-2ALU	PIPE SEAM	B-J	89.12	SUR	1RRP-136		ACC			No recordable indications.
12RRC(7)B-2ALU	PIPE SEAM	B-J	89.12	VOL	R-R9-058		45			No recordable indications.
12RRC(7)B-2A	PIPE TO PIPE	B-J	89.11	SUR	1RRP-136		ACC			No recordable indications. This weld is stamped as 12RRC(7)B-2. Use identification = 12RRC(7)B-2A to link with PSI data.
12RRC(7)B-2A	PIPE TO PIPE	B-J	89.11	VOL	R-R9-054		45			No recordable indications
12RRC(7)B-2ALD	PIPE SEAM	B-J	89.12	SUR	1RRP-136		ACC			No recordable indications
12RRC(7)B-2ALD	PIPE SEAM	B-J	89.12	VOL	R-R9-057		45			No recordable indications
12RRC(7)B-2LU	PIPE SEAM	B-J	89.12	SUR	1RRP-135		ACC			No recordable indications.
12RRC(7)B-2LU	PIPE SEAM	B-J	89.12	VOL	R-R9-056		45			No recordable indications
12RRC(7)B-2	PIPE TO ELL	B-J	89.11	SUR	1RRP-135		ACC			No recordable indications. This weld is stamped as 12RRC(7)B-2A. Use identification = 12RRC(7)B-2 to maintain link with PSI.
12RRC(7)B-2	PIPE TO ELL	B-J	89.11	VOL	R-R9-055		45			No recordable indications
RRC-PB-107(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29		ACC			No unacceptable indications
Drawing # RRC-108										
RRC-PB-108(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29		ACC			No unacceptable indications

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # RRC-109										
RRC-PB-109(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # RRC-110										
RRC-PB-110(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # RRC-111										
RRC-PB-111(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # RWCU-101										
4RWCU(4)-1/2RWCU(4)-4	PIPE TO WOL	B-J	B9.32	SUR	1RTH-005	ACC				No recordable indications
2RWCU(4)-1	VALVE TO PIPE	B-J	B9.21	SUR	1RTH-006	ACC				No recordable indications
RWCU-PB-101(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
Drawing # SLC-101										
SLC-PB-101(H)	HYDRO PRES BNDR	B-P	B15.51	VT-2	CL29	ACC				No unacceptable indications
SLC-4453-68	STRUT	IWF	F-X	VT3H	1HV-0292	ACC				No recordable indications
SLC-4475-25	STRUT	IWF	F-X	VT3H	1HV-0289	ACC				No recordable indications
SLC-4475-24	STRUT	IWF	F-X	VT3H	1HV-0288	ACC				No recordable indications
SLC-4475-21	PSA-1 SHUBBER	IWF	F-X	VT3H	1HV-0291	ACC				No recordable indications
SLC-4475-22	SPRING	IWF	F-X	VT3H	1HV-0287	ACC				No recordable indications
SLC-4475-121	SPRING	IWF	F-X	VT3H	1HV-0313	ACC				Minor uniform corrosion on wall plate. Spring setting at cold mark.
SLC-4475-117	STRUT	IWF	F-X	VT3H	1HV-0325	ACC				No recordable indications

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Identification No.	Description	Code Cate.	Item No.	Meth	Data Rpt. No.	Noind	Insig	Geom	Other	Remarks
Drawing # SW-301										
SW-PB-301(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	CK8901	ACC				No recordable indications
Drawing # SW-302										
SW-PB-302(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	CK8901	ACC				No recordable indications
Drawing # SW-303										
SW-PB-303(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	CK8901	ACC				No recordable indications
SW-PB-303(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	1SWV-155	ACC				No recordable indications
Drawing # SW-304										
SW-PB-304(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	CK8901	ACC				No recordable indications
Drawing # SW-305										
SW-PB-305(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	CL2401	ACC				No recordable indications
Drawing # SW-306										
SW-PB-306(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	CL2401	ACC				No recordable indications
Drawing # SW-307										
SW-PB-307(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	CL2401	ACC				No recordable indications
SW-PB-307(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	1SWV-155	ACC				No recordable indications
Drawing # SW-308										
SW-PB-308(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	CL2401				ACC	Leaks at flex 1B1 and 1B2. Evaluated as acceptable.
Drawing # SW-309										
SW-PB-309(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	CL2601	ACC				No recordable indications
SW-PB-309(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	1SWV-155	ACC				No recordable indications
Drawing # SW-310										
SW-PB-310(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	CL2601	ACC				No recordable indications

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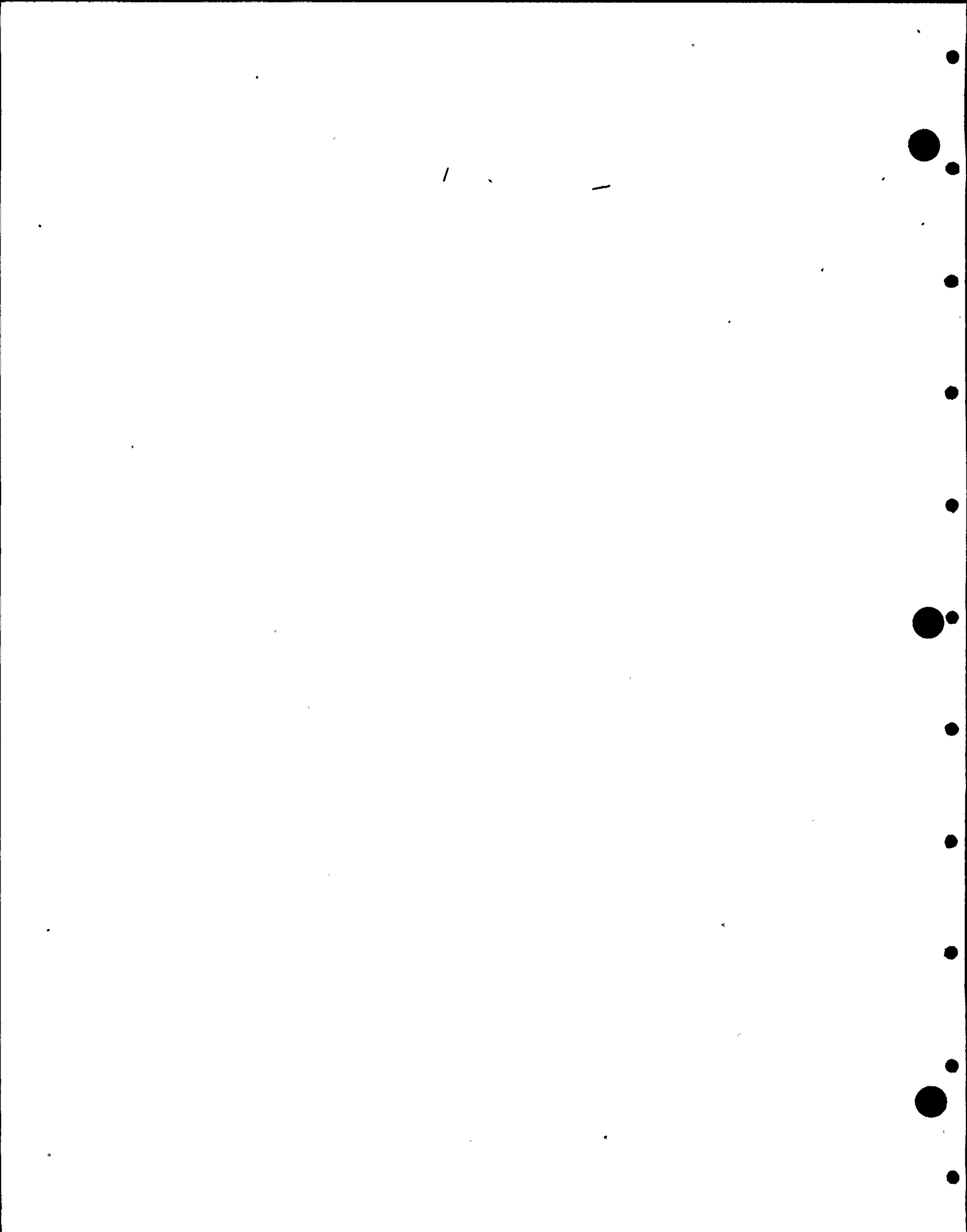
<u>Identification No.</u>	<u>Description</u>	<u>Code Cate.</u>	<u>Item No.</u>	<u>Meth</u>	<u>Data Rpt. No.</u>	<u>Noind</u>	<u>Insig</u>	<u>Geom</u>	<u>Other</u>	<u>Remarks</u>
Drawing # SW-311										
SW-PB-311(H)	HYDRO PRES BNDR	D-B	D2.10	VT-2	CL2601	ACC				No recordable indications

APPENDIX C

ASME SECTION XI REPAIR AND REPLACEMENT LISTING NIS-2 OWNER'S REPORTS

This appendix summarizes ASME Section XI repair or replacement work performed between June 21, 1993 and July 30, 1994. The status of the NIS-2 Owner's Report is stated for each repair and replacement work performed.

PLAN NO	MWR.NO	COMPONENT NUMBER / WORK DESCRIPTION	DESC OF COMP	R&R REPORTED IN
2-0471	AT 7080	Repaired drain line with valves MS-V-239 and MS-V-238B	Piping	RF94A Summary Report *
2-0475	AT 7842	Capped drain line with valves MS-V-119C and MS-V-238C	Piping	RF94A Summary Report *
2-0475	AT 7842	Capped drain line with valves MS-V-238B and MS-V-239	Piping	RF94A Summary Report *
2-0498	AT 9479	Reinstalled drain line with valves MS-V-119C and MS-V-238C	Piping	RF94A Summary Report *
2-0498	AT 9479	Reinstalled drain line with valves MS-V-238B and MS-V-239	Piping	RF94A Summary Report *
2-0664	AR 2252	Modified FPC drain line	Piping	RF94A Summary Report
2-0745	AR 6196	Installed header lines for tanks DO-TK-1A, DO-TK-1B and DO-TK-2	Piping	RF94A Summary Report
2-0775	DL 7401	Replaced body to bonnet bolting material for valve RHR-V-50A	Valve	RF94A Summary Report
2-0867	EY 0301	Installed pipe cap for connection RWCU-V-622	Piping	RF94A Summary Report
2-0868	DM 3601	Replaced nuts for decon flange joint, RRC loop A pump suction	Piping	RF94A Summary Report
2-0879	CE 3601	Replaced piping and relief valve CAC-RV-65A	Piping	RF94A Summary Report
2-0880	CE 3701	Replaced piping and relief valve CAC-RV-65B	Piping	RF94A Summary Report
2-0881	AP 0429	Modified connection for valves SLC-V-42 and SLC-V-43	Piping	RF94A Summary Report
2-0884	AP 0422	Modified connection for valves PSR-V-001/3 and PSR-V-001/4	Piping	RF94A Summary Report
2-0885	AP 0423	Modified connection for valves PSR-V-002/3 and PSR-V-002/4	Piping	RF94A Summary Report
2-0888	AR 9737	Machined seating surfaces for spare nozzles for main steam relief valves	Relief Valves	RF94A Summary Report
2-0899	DN 2701	Modified restriction orifice HPCS-RO-8 and HPCS-RO-9	Piping	RF94A Summary Report
2-0902	CG 3601	Replaced Local Power Range Monitoring (LPRM) Incore assemblies	RPV	RF94A Summary Report
2-0907	AP 0996	Installed UT sensor for tank DO-TK-1A	Tank	RF94A Summary Report
2-0908	AP 0997	Installed UT sensor for tank DO-TK-1B	Tank	RF94A Summary Report
2-0909	AP 0998	Installed UT sensor for tank DO-TK-2	Tank	RF94A Summary Report
2-0911	AP 2245	Removed drain line with valves MS-V-238B and MS-V-239	Piping	RF94A Summary Report *
2-0916	DM 0101	Made body to bonnet seal weld for valve SW-V-44	Valve	RF94A Summary Report
2-0921	DL 3801	Made body to bonnet seal weld for valve PSR-V-003/A	Valve	RF94A Summary Report
2-0922	DL 3801	Made body to bonnet seal weld for valve PSR-V-003/B	Valve	RF94A Summary Report
2-0944	AP 2762	Installed bushing retainer for valve EDR-V-40	Valve	RF94A Summary Report
2-0963	AP 3929	Replaced disc insert and/or nozzle for relief valve S/N 63790-00-0045	Relief Valve	RF94A Summary Report
2-0964	AP 3930	Replaced disc insert and/or nozzle for relief valve S/N 63790-00-0055	Relief Valve	RF94A Summary Report
2-0972	AP 3931	Replaced disc insert and/or nozzle for relief valve S/N 63790-00-0051	Relief Valve	RF94A Summary Report
2-0973	DJ 3001	Replaced disc insert and/or nozzle for relief valve S/N 63790-00-0047	Relief Valve	RF94A Summary Report
2-0974	FL 9801	Replaced mechanical seal for pump FPC-P-1A	Pump	RF94A Summary Report
2-0975	AP 4900	Removed failed weld in instrument line PI(1)-4S-X75d	Piping	See Note 1
2-0976	AP 5046	Repaired inlet and outlet condenser heads for CCH-CR-1B	Heat exchanger	RF94A Summary Report
2-0978	CE 0501	Modified connection for valve PI-V-902	Piping	See Note 1
2-0982	CE 0101	Modified connection for valve FPC-V-187B	Piping	See Note 1
2-0983	CC 0601	Cut and rewelded welds shown on Dwg RRC-4300-3	Piping	RF94A Summary Report
2-0985	GW 1504,6	Replaced modules for Position No's 1, 2, 3 for electrical penetration X-101B	Penetration	RF94A Summary Report
2-0986	FR 1701,4	Installed bypass around valve RHR-V-6A	Piping	See Note 1
2-0989	ED 9601	Replaced bolting material for a flanged joint shown on Dwg RWCU-4794-1	Piping	See Note 1
2-0990	DN 8001	Replaced front snubber for valve CVB-V-1ST	Valve	RF94A Summary Report
2-0991	CM 3801	Made body to bonnet seal weld for valve DO-V-41B	Valve	RF94A Summary Report
2-0992	FY 2101	Replaced disc and made body to bonnet seal weld for valve RHR-V-209	Valve	RF94A Summary Report
2-0993	GC 9901	Replaced disc (plug) valve RWCU-FCV-33	Valve	RF94A Summary Report
2-0996	CM 2301,4	Replaced level switch CRD-LS-13E	Piping	See Note 1
2-0997	FG 7802,3	Replaced stem disc assembly and bonnet for valve RWCU-V-103	Valve	RF94A Summary Report
2-0998	DL 6501	Replaced disc and bonnet for valve MS-V-20	Valve	RF94A Summary Report
2-0999	CL 5003	Replaced bolting material for relief valve FPC-RV-117A outlet flanged joint	Piping	See Note 1
2-1000	CL 4901	Replaced base for relief valve RCC-RV-34A	Relief Valve	See Note 1
2-1001	DL 5603	Replaced valves CEP-V-1A and CEP-V-2A	Piping	RF94A Summary Report
2-1002	DL 5703	Replaced valves CSP-V-3 and CSP-V-4	Piping	RF94A Summary Report
2-1003	C 30786	Modified "Bailly" MSRV S/N N 56000-01-0037 to S/N N 63790-00-0134	Relief Valve	RF94A Summary Report
2-1004	C 30786	Modified "Bailly" MSRV S/N N 56000-01-0099 to S/N N 63790-00-0135	Relief Valve	RF94A Summary Report
2-1005	C 30786	Modified "Bailly" MSRV S/N N 56000-02-0043 to S/N N 63790-00-0136	Relief Valve	RF94A Summary Report
2-1006	C 30786	Modified "Bailly" MSRV S/N N 56000-01-0042 to S/N N 63790-00-0137	Relief Valve	RF94A Summary Report
2-1007	C 30786	Modified "Bailly" MSRV S/N N 56000-01-0038 to S/N N 63790-00-0138	Relief Valve	RF94A Summary Report
2-1008	C 30786	Modified "Bailly" MSRV S/N N 56000-01-0100 to S/N N 63790-00-0139	Relief Valve	RF94A Summary Report
2-1009	CL 4601	Replaced relief valve SLC-RV-29A	Relief Valve	RF94A Summary Report
2-1010	CL 4701	Replaced relief valve SLC-RV-29B	Relief Valve	RF94A Summary Report
2-1011	CJ 2001	Replaced existing relief valve MS-RV-1D with spare S/N N63790-00-0047	Relief Valve	RF94A Summary Report



PLAN NO	MWR.NO	COMPONENT NUMBER / WORK DESCRIPTION	DESC OF COMP	R&R REPORTED IN
2-1012	CH 1001	Replaced existing relief valve MS-RV-5B with spare S/N N 63790-00-0136	Relief Valve	RF94A Summary Report
2-1013	CJ 2101	Replaced existing relief valve MS-RV-2B with spare S/N N 63790-00-0134	Relief Valve	RF94A Summary Report
2-1014	CH 8001	Replaced existing relief valve MS-RV-4C with spare S/N N63790-00-0055	Relief Valve	RF94A Summary Report
2-1015	CJ 2301	Replaced existing relief valve MS-RV-4A with spare S/N N63790-00-0135	Relief Valve	RF94A Summary Report
2-1016	CJ 2401	Replaced existing relief valve MS-RV-2A with spare S/N N63790-00-0051	Relief Valve	RF94A Summary Report
2-1017	CJ 2601	Replaced existing relief valve MS-RV-4B with spare S/N N63790-00-0137	Relief Valve	RF94A Summary Report
2-1018	CJ 2701	Replaced existing relief valve MS-RV-2D with spare S/N N63790-00-0138	Relief Valve	RF94A Summary Report
2-1019	CJ 2201	Refurbished and reinstalled MS-RV-2C, S/N N63790-00-0122	Relief Valve	RF94A Summary Report
2-1020	CW 8101	Replaced valves RCIC-V-26, 39, 54, 207 and associated piping	Piping	See Note 1
2-1022	CG 2501	Removed internals for valve RHR-V-46A	Valve	RF94A Summary Report
2-1023	KC 1302	Replaced valve RCIC-V-28	Valve	RF94A Summary Report
2-1024	HL 6101	Replaced parts for valve SLC-V-4B	Valve	RF94A Summary Report
2-1025	CL 3201	Modified supports for instrument lines PI(1)-4S-X-40d and PI(1)-4S-X-70a	Piping	See Note 1
2-1026	GV 9801	Installed packing leak off plug for valve FPC-V-114	Valve	See Note 1
2-1029	KK 2101	Replaced module for Position No 1 for electrical penetration X-104A	Penetration	RF94A Summary Report
2-1038	FD 2204	Modified wedge for valve RHR-V-8	Valve	RF94A Summary Report
2-1039	FF 8303	Installed external bypass for pressure locking for valve RHR-V-9	Valve	See Note 1
2-1040	JL 6601	Installed external bypass for pressure locking for valve LPCS-V-5	Valve	See Note 1
2-1044	JX 3001	Installed new valve PI-V-X72F1 in line PI(1)-4S-X72F	Piping	See Note 1
2-1045	JX 3201	Installed new valve PI-V-X773E1 in line PI(1)-4S-X73E	Piping	See Note 1
2-1046	DK 7704	Repaired pits in line SW(1)-2G down stream of valve SW-V-2A	Piping	RF94A Summary Report
2-1047	DK 7705	Weld overlay in line SW(1)-2G down stream of valve SW-V-2A	Piping	RF94A Summary Report
2-1048	DL 6101	Replaced bolting material for seal cooler RHR-HX-2A	Heat Exchanger	RF94A Summary Report
2-1049	KG 9401	Made body to bonnet seal weld for valve RHR-V-73A	Valve	RF94A Summary Report
2-1050	CJ 2101	Machined (removed) gouges in piping flange for MS-RV-2B	Piping	RF94A Summary Report
2-1051	CJ 2701	Machined (removed) gouges in piping flange for MS-RV-2D	Piping	RF94A Summary Report
2-1052	GW 1509	Replaced module for Position No 1 for electrical penetration X-101A	Penetration	RF94A Summary Report
2-1053	KS 0903	Replaced module for Position No 1 for electrical penetration X-105B	Penetration	RF94A Summary Report
2-1054	DL 5703	Modified tubing for instrument line PI(1)-ST-(IR-64)-9, valve CSP-V-701	Piping	RF94A Summary Report
2-1055	DL 5703	Modified tubing for instrument line PI(1)-4S-X82B, valve PI-V-X82B2	Piping	RF94A Summary Report
2-1056	DL 5703	Modified tubing for instrument line PI(1)-4S-X82D, valve PSR-V-X82-2	Piping	RF94A Summary Report
2-1057	KL 6601	Repaired weld for flex hose SW-FLX-1A2	Flex Hose	RF94A Summary Report
2-1058	CZ 1602	Replaced bolting material for flange joint N-7 on Dwg RCIC-659-27.28	Piping	RF94A Summary Report
2-1059	CG 2701	Removed internals for valve RHR-V-46B	Valve	RF94A Summary Report
2-1060	CG 2901	Removed internals for valve RHR-V-46C	Valve	RF94A Summary Report
2-1061	KM 0202	Repaired weld for flex hose SW-FLX-1A1	Flex Hose	RF94A Summary Report
2-1062	KM 0203	Repaired weld for flex hose SW-FLX-2A1	Flex Hose	RF94A Summary Report
2-1063	KM 0204	Repaired weld for flex hose SW-FLX-2A2	Flex Hose	RF94A Summary Report
2-1065	KM 5801	Replaced front and rear snubbers for valve CVB-V-1CD	Valve	RF94A Summary Report
2-1069	KM 3803	Replaced module for Position No 3 for electrical penetration X-105C	Penetration	RF94A Summary Report
2-1070	KR 4803	Replaced module for Position No 1 for electrical penetration X-105A	Penetration	RF94A Summary Report
2-1071	DJ 8904	Repaired pits in line SW(1)-2G down stream of valve SW-V-2B	Piping	RF94A Summary Report
2-1072	DJ 8903	Replaced valve SW-V-2B	Piping	RF94A Summary Report
2-1073	KN 1803	Repaired weld for flex hose SW-FLX-1B1	Flex Hose	RF94A Summary Report
2-1074	KN 2002	Repaired weld for flex hose SW-FLX-1B2	Flex Hose	RF94A Summary Report
2-1075	CH 8002	Replaced bolting material for flange joint shown on Dwg CIA-4133-1	Piping	RF94A Summary Report
2-1076	KR 6901	Fillet welded disc to disc nut for valve HPCS-V-23	Valve	RF94A Summary Report
2-1077	CW 8102	Replaced valve RCIC-V-25	Piping	See Note 1
2-1079	DM 8002	Fabricated and installed end cover plate for valve SW-V-165B	Valve	RF94A Summary Report
2-1080	CL 1302	Replaced pipe nipple between DCW-HX-1B2 and valve SW-V-197	Piping	See Note 1
2-1081	DM 8001	Replaced nuts for piping to valve SW-V-165B flanged joint	Piping	RF94A Summary Report
2-1082	CL 7301	Replaced disc assembly for valves RRC-V-21 and RRC-V-22	Valve	See Note 1
2-1084	KN 2003	Repaired weld for flex hose SW-FLX-1B2	Flex Hose	RF94A Summary Report
2-1085	KY 2602	Replaced Local Power Range Monitoring (LPRM) incore assembly	RPV	RF94A Summary Report
2-1086	KX 8102	Replaced module for Position No's 1 and 2 for electrical penetration X-105C	Penetration	RF94A Summary Report
2-1087	LC 8602	Replaced module for Position No 3 for electrical penetration X-101C	Penetration	RF94A Summary Report
2-1088	LC 8702	Replaced module for Position No 3 for electrical penetration X-101D	Penetration	RF94A Summary Report
2-1089	LB 0301	Replaced valve CRD-V-101A/1427, Serial No DL 10211	Piping	See Note 1
2-1090	CK 8908	Replaced bolting material for flex hoses SW-FLX-2A1 and SW-FLX-2A2	Piping	RF94A Summary Report
2-1091	KM 6105	Replaced rear snubber for valve CVB-V-1JK	Valve	RF94A Summary Report

PLAN NO	MWR NO	COMPONENT NUMBER / WORK DESCRIPTION	DESC OF COMP	R&R REPORTED IN
2-1093	FB 1101	Machined surface defects on disc seating surface for valve SLC-V-14	Valve	RF94A Summary Report
2-1094	LD 8602	Made body to bonnet seal weld for valve CIA-V-30A	Valve	RF94A Summary Report
2-1095	LK 6301	Repaired pin hole in socket weld for CAC-HR-1B piping	Piping	RF94A Summary Report
2-1097	ME 2402	Replaced disc and made body to bonnet seal weld for valve PSR-V-X77A/1	Valve	RF94A Summary Report
2-1099	FN 0101	Replaced disc and nozzle for relief valve RHR-RV-5	Relief Valve	RF94A Summary Report
2-1100	MH 26	Cut and rewelded socket weld for drain connection with valve HPCS-V-58	Piping	RF94A Summary Report
2-1101	ME 24	Replaced valve PSR-V-X77A/1 - First Replacement	Valve	See Note 1
2-1103	ME 2408	Replaced valve PSR-V-X77A/1 - Second Replacement	Valve	RF94A Summary Report
N/A	CG 2401	Replaced thirty (30) Control Rod Drives (CRD's)	CRD	RF94A Summary Report
N/A	KT 8901	Replaced one (1) Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	KT 8902	Replaced one (1) Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6304	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6305	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6307	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6308	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6309	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6311	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6312	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6315	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6320	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6321	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6322	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6323	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6326	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6327	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	EU 6331	Overhauled and replaced part(s) for Control Rod Drive (CRD)	CRD	RF94A Summary Report
N/A	CL 3201	Replaced snubber for support MS-1368-13	Support	RF94A Summary Report
N/A	CL 3201	Deleted snubbers for supports RRC-SA-1, 2, 8, 9,11 -> 20, 25 and 66	Supports	RF94A Summary Report
N/A	CL 3201	Deleted snubbers for supports RHR-SA-30 and RHR-SA-31	Supports	RF94A Summary Report
N/A	CL 3201	Deleted snubber for support RHR-2264-21	Support	RF94A Summary Report
N/A	CL 3201	Deleted snubbers for supports RHR-SA-35, 36, 37, 39 and 40	Supports	RF94A Summary Report
N/A	CL 3201	Deleted snubbers for supports RHR-SA-54, 55, 57, 58 and 59	Supports	RF94A Summary Report
N/A	CL 3201	Deleted snubbers for supports RRC-SB-1, 2,11 -> 18, 25 and 66	Supports	RF94A Summary Report
N/A	CL 3201	Deleted snubbers for supports RHR-SB-30 and 31	Supports	RF94A Summary Report
N/A	CL 3201	Deleted snubbers for supports RHR-SB-32, 34, 35, 36 and 39	Supports	RF94A Summary Report
N/A	CL 3201	Removed U bolt for support B-220-656-41	Support	See Note 1
N/A	CL 3201	Removed U bolts for support B-220-1155-40	Support	See Note 1
N/A	CL 3201	Removed U bolt for support B-220-1172-40	Support	See Note 1
N/A	CL 3201	Removed U bolt for support B-220-1176-20	Support	See Note 1
N/A	CL 3201	Removed U bolt for support B-220-687-21	Support	See Note 1

* Revised NIS-2 Form

Note 1 NIS-2 form not required. Replacement work for one (1) inch nominal pipe size (NPS) and smaller



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 3/10/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1990 Edition with Winter 1990 Addenda, Code Case: N-308 And N-416
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

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

7. Description Of Work Performed: Replaced pipe piece between the sockolet and valve MS-V-239. The pipe was replaced due to failed (cracked) weld. The replacement work was performed as follows:

- 1) Cut and removed existing pipe piece
- 2) Installed new replacement pipe piece
- 3) Made required socket welds
- 4) Performed PT examination on the final socket welds. ~~PT~~ examination results acceptable. This NDE examination satisfied both ASME Section III, Code Class 2 and Code Case N-416 requirements
- 5) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during pressure test

Revision - Revised Item 9 "Remarks" (Underlined portion only)



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 1005 Psig Test Temperature: 535° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: Visual examination (VT-2) for leakage at nominal operating pressure and temperature was performed in lieu of the required hydrostatic test as permitted by Code Case N-418. The required hydrostatic test will not be performed based on ASME Section XI, Article IWA-5214(d). See attached IOM from RA Moen/TL Mead to HE Keok, Subject - Justification for not performing hydrostatic test of repairs to Main Steam (MS) drip leg, dated February 22, 1994

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Moen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 3/10/94 Date 3-11-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 11-28-88 to 8-22-90 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 3/14/94



INTEROFFICE MEMORANDUM

PLAN NO. 2-0471

DATE: February 22, 1994

TO: HE Kook, Manager WNP-2 Licensing (PE20)

FROM: *Terry Meade*
TL Meade, Manager Technical Programs (PE27)
RA Moen
RA Moen, Manager Materials and Inspection (PE22)*Culdrup Sup's*
3/10/94SUBJECT: JUSTIFICATION FOR NOT PERFORMING HYDROSTATIC TEST OF REPAIRS TO
MS LINE DRIP LEG

REFERENCE:

From October 1988 through January 1993, several ASME Section XI work plans were implemented to perform repair/replacement work on the two-inch NPS drain connection attached to ASME Section III, Code Class 2 Main Steam system, Line "B" drip leg. ASME Section XI, Article IWA-4400 requires such repair/replacements to be hydrostatically tested. At the time the repair/replacements were performed, the hydrostatic tests were deferred using ASME Code Case N-416 which allows deferral of hydrostatic tests of piping that cannot be isolated by existing valves to the next scheduled system hydrostatic test. The next scheduled system hydrostatic test was anticipated to be the test required at a ten year interval.

During preparation for the ten year hydrostatic tests using Code Case N-498, it was noticed that ISI Program Plan, Note 4 of page 4-3 states that Class 2 portion of Main Steam line (downstream of outboard MS isolation valves) does not perform any safety function and is capable of automatic isolation, therefore no pressure test will be performed on these lines. This position was further confirmed with NRC during our request to use Code Case N-498 (Ref. letter G02-92-017, dated January 23, 1992). Use of Code Case N-498 for Class 1 and 2 piping systems allows leakage test at nominal operating pressure in lieu of the hydrostatic tests.

Independent review by a member of Plant Technical staff concluded that provisions of IWA-5214(d) can be used to justify waving hydrostatic test requirements for affected repairs. IWA-5214(d) states that when a system hydrostatic test imposes system conditions which conflict with limitations included in the plant Technical Specifications, a system inservice test at nominal operating temperature shall be acceptable in lieu of the system hydrostatic test. Justification for the application of this Article is as follows:

- The configuration of the affected piping requires that the Reactor Pressure Vessel (RPV) be included in the hydrostatic pressure boundary.
- The required hydrostatic test pressure for the affected piping is 1563 PSIG. To reach that pressure in the RPV would necessitate gagging the Safety Relief Valves (SRV's) because their set points are all less than the required test pressure.

- Technical Specification 2.1.3, Reactor Coolant System Pressure, limits reactor pressure to LE 1325 psig steam dome pressure (equivalent to 1375 psig at the lowest elevation of the reactor coolant system).
- The Pressure/Temperature curves for the RPV in Technical Specifications Figure 3.4.6.1 indicate the required temperature of the RPV to pressurize to 1563 PSIG is > 250 degrees F.
- With Reactor Coolant temperature > 200 degrees F, Technical Specifications require that the Mode Switch be in operational condition 3 (Hot Shutdown).
- Technical Specification 3.4.2b) requires 4 SRV's to be operable while in Mode 3 which would not be the case with all SRV's gagged.

This conflict with limitations of WNP-2 Technical Specifications allows application of Article IWA-5214(d). The inservice test required in lieu of the hydrostatic test was performed each time the repair/replacements were made and is documented on the Section XI work plans. NIS-2 form will be updated to reflect this position.

DISTRIBUTION:

LC Mauws/lb <u>LCM</u>	PE27
R Rana/lb <u>R Rana</u>	PE27
PJ Inserra	PE27
CM King	PE22
K Singh	PE22
DP Ramey	901B
DE Hoggarth	901B
MG Eades	PE20
RL Webring	PE27
TLM/lb	



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 3/10/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 And N-416
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

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

7. Description Of Work Performed: Removed 3/4" drain line with valves MS-V-119C/MS-V-238C and 2" drain line with valves MS-V-239/MS-V-238B. Installed pipe caps in place of the drain lines. The replacement work for both the drain lines was performed as follows:

- 1) Cut and removed both the drain lines
- 2) Installed new replacement pipe for 3/4" drain line and new replacement pipe caps for both the drain lines
- 3) Made required socket welds
- 4) Performed MT or PT examination on the final socket welds. MT/PT examination results acceptable. This NDE examination satisfied both ASME Section III, Code Class 2 and Code Case N-416 requirements
- 5) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during pressure test

Note: Capped drain lines were considered as interim design configuration. Both the drain lines were reinstalled under ASME Section XI. Plan No 2-0498

Revision - Revised Item 9 "Remarks" (Underlined portion only)



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 1005 Psig Test Temperature: 535° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: Visual examination (VT-2) for leakage at nominal operating pressure and temperature was performed in lieu of the required hydrostatic test as permitted by Code Case N-418. The required hydrostatic test will not be performed based on ASME Section XI, Article IWA-5214(d). See attached IOM from RA Moon/TL Mead to HE Kook, Subject - Justification for not performing hydrostatic test of repairs to Main Steam (MS) drip leg, dated February 22, 1994.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Man
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 3/10/94 Date 3-11-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 12-2-88 to 8-22-90 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be 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 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 3/14/94



INTEROFFICE MEMORANDUM

PLAN No. 2-0475

DATE: February 22, 1994

TO: HE Kook, Manager WNP-2 Licensing (PE20)

FROM: *Jerry Meade*
IL Meade, Manager Technical Programs (PE27)
RA Moen
RA Moen, Manager Materials and Inspection (PE22)*Rudolph Supt*
3/10/94SUBJECT: JUSTIFICATION FOR NOT PERFORMING HYDROSTATIC TEST OF REPAIRS TO
MS LINE DRIP LEG

REFERENCE:

From October 1988 through January 1993, several ASME Section XI work plans were implemented to perform repair/replacement work on the two-inch NPS drain connection attached to ASME Section III, Code Class 2 Main Steam system, Line "B" drip leg. ASME Section XI, Article IWA-4400 requires such repair/replacements to be hydrostatically tested. At the time the repair/replacements were performed, the hydrostatic tests were deferred using ASME Code Case N-416 which allows deferral of hydrostatic tests of piping that cannot be isolated by existing valves to the next scheduled system hydrostatic test. The next scheduled system hydrostatic test was anticipated to be the test required at a ten year interval.

During preparation for the ten year hydrostatic tests using Code Case N-498, it was noticed that ISI Program Plan, Note 4 of page 4-3 states that Class 2 portion of Main Steam line (downstream of outboard MS isolation valves) does not perform any safety function and is capable of automatic isolation, therefore no pressure test will be performed on these lines. This position was further confirmed with NRC during our request to use Code Case N-498 (Ref. letter G02-92-017, dated January 23, 1992). Use of Code Case N-498 for Class 1 and 2 piping systems allows leakage test at nominal operating pressure in lieu of the hydrostatic tests.

Independent review by a member of Plant Technical staff concluded that provisions of IWA-5214(d) can be used to justify waving hydrostatic test requirements for affected repairs. IWA-5214(d) states that when a system hydrostatic test imposes system conditions which conflict with limitations included in the plant Technical Specifications, a system inservice test at nominal operating temperature shall be acceptable in lieu of the system hydrostatic test. Justification for the application of this Article is as follows:

- The configuration of the affected piping requires that the Reactor Pressure Vessel (RPV) be included in the hydrostatic pressure boundary.
- The required hydrostatic test pressure for the affected piping is 1563 PSIG. To reach that pressure in the RPV would necessitate gagging the Safety Relief Valves (SRV's) because their set points are all less than the required test pressure.

- Technical Specification 2.1.3, Reactor Coolant System Pressure, limits reactor pressure to LE 1325 psig steam dome pressure (equivalent to 1375 psig at the lowest elevation of the reactor coolant system).
- The Pressure/Temperature curves for the RPV in Technical Specifications Figure 3.4.6.1 indicate the required temperature of the RPV to pressurize to 1563 PSIG is >250 degrees F.
- With Reactor Coolant temperature >200 degrees F, Technical Specifications require that the Mode Switch be in operational condition 3 (Hot Shutdown).
- Technical Specification 3.4.2b) requires 4 SRV's to be operable while in Mode 3 which would not be the case with all SRV's gagged.

This conflict with limitations of WNP-2 Technical Specifications allows application of Article IWA-5214(d). The inservice test required in lieu of the hydrostatic test was performed each time the repair/replacements were made and is documented on the Section XI work plans. NIS-2 form will be updated to reflect this position.

DISTRIBUTION:

LC Mauws/lb <u>LCM</u>	PE27
R Rana/lb <u>RRana</u>	PE27
PJ Inerra	PE27
CM King	PE22
K Singh	PE22
DP Ramey	901B
DE Hoggarth	901B
MG Eades	PE20
RL Webring	PE27
TLM/lb	



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 3/10/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308 And N-416
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

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

7. Description Of Work Performed: The 3/4" drain line with valves MS-V-119C/MS-V-238C and 2" drain line with valves MS-V-239/MS-V-238B removed under ASME Section XI Plan No 2-0475 were reinstalled under this plan. The reinstallation work for both the drain lines was performed as follows:

- 1) Cut and removed the existing pipe pieces with the pipe caps from the sockolets for both the drain lines
- 2) Cut and removed the existing pipe pieces between the valves for both the drain lines
- 3) Installed new replacement pipe pieces and the existing valves previously removed for both the drain lines
- 4) Made required socket welds
- 5) Performed MT or PT examination on the final socket welds. MT/PT examination results acceptable. This NDE examination satisfied both ASME Section III, Code Class 2 and Code Case N-416 requirements . . .
- 6) Fabricate and installed new pipe supports for both the drain lines
- 7) Made required welds for the new supports
- 8) Performed MT or PT examination on the final welds. MT/PT examination results acceptable
- 9) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during pressure test

Revision - Revised Item 9 "Remarks" (Underlined portion only)



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 950 Psig Test Temperature: 530° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: Visual examination (VT-2) for leakage at nominal operating pressure and temperature was performed in lieu of the required hydrostatic test as permitted by Code Case N-416. The required hydrostatic test will not be performed based on ASME Section XI, Article IWA-5214(d). See attached IOM from RA Moon/TL Mead to HE Kook, Subject - Justification for not performing hydrostatic test of repairs to Main Steam (MS) drip leg, dated February 22, 1994.

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Ruldip Singh Signed By R. Amos
 Ruldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 3/10/94 Date 3-11-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-4-89 to 8-22-90 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be 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 9556 W NBE
 Inspector's Signature National Board, State, and Endorsements

Date 3/14/94



INTEROFFICE MEMORANDUM

PLAN. No. 2-0498

DATE: February 22, 1994

TO: HE Kook, Manager WNP-2 Licensing (PE20)

FROM: *Jerry Meade*
IL Meade, Manager Technical Programs (PE27)
RA Moen, Manager Materials and Inspection (PE22)*Caldrip Sup's*
3/10/94SUBJECT: JUSTIFICATION FOR NOT PERFORMING HYDROSTATIC TEST OF REPAIRS TO
MS LINE DRIP LEG

REFERENCE:

From October 1988 through January 1993, several ASME Section XI work plans were implemented to perform repair/replacement work on the two-inch NPS drain connection attached to ASME Section III, Code Class 2 Main Steam system, Line "B" drip leg. ASME Section XI, Article IWA-4400 requires such repair/replacements to be hydrostatically tested. At the time the repair/replacements were performed, the hydrostatic tests were deferred using ASME Code Case N-416 which allows deferral of hydrostatic tests of piping that cannot be isolated by existing valves to the next scheduled system hydrostatic test. The next scheduled system hydrostatic test was anticipated to be the test required at a ten year interval.

During preparation for the ten year hydrostatic tests using Code Case N-498, it was noticed that ISI Program Plan, Note 4 of page 4-3 states that Class 2 portion of Main Steam line (downstream of outboard MS isolation valves) does not perform any safety function and is capable of automatic isolation, therefore no pressure test will be performed on these lines. This position was further confirmed with NRC during our request to use Code Case N-498 (Ref. letter G02-92-017, dated January 23, 1992). Use of Code Case N-498 for Class 1 and 2 piping systems allows leakage test at nominal operating pressure in lieu of the hydrostatic tests.

Independent review by a member of Plant Technical staff concluded that provisions of IWA-5214(d) can be used to justify waving hydrostatic test requirements for affected repairs. IWA-5214(d) states that when a system hydrostatic test imposes system conditions which conflict with limitations included in the plant Technical Specifications, a system inservice test at nominal operating temperature shall be acceptable in lieu of the system hydrostatic test. Justification for the application of this Article is as follows:

- The configuration of the affected piping requires that the Reactor Pressure Vessel (RPV) be included in the hydrostatic pressure boundary.
- The required hydrostatic test pressure for the affected piping is 1563 PSIG. To reach that pressure in the RPV would necessitate gagging the Safety Relief Valves (SRV's) because their set points are all less than the required test pressure.

- Technical Specification 2.1.3, Reactor Coolant System Pressure, limits reactor pressure to LE 1325 psig steam dome pressure (equivalent to 1375 psig at the lowest elevation of the reactor coolant system).
- The Pressure/Temperature curves for the RPV in Technical Specifications Figure 3.4.6.1 indicate the required temperature of the RPV to pressurize to 1563 PSIG is > 250 degrees F.
- With Reactor Coolant temperature > 200 degrees F, Technical Specifications require that the Mode Switch be in operational condition 3 (Hot Shutdown).
- Technical Specification 3.4.2b) requires 4 SRV's to be operable while in Mode 3 which would not be the case with all SRV's gagged.

This conflict with limitations of WNP-2 Technical Specifications allows application of Article IWA-5214(d). The inservice test required in lieu of the hydrostatic test was performed each time the repair/replacements were made and is documented on the Section XI work plans. NIS-2 form will be updated to reflect this position.

DISTRIBUTION:

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K Singh	PE22
DP Ramey	901B
DE Hoggarth	901B
MG Eades	PE20
RL Webring	PE27
TLM/lb	



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/21/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Bechtel Construction, Inc, PO Box 600, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: C20069
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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(12)-1	WPPSS	FPC(12)-1-P1	N/A	N/A	1983	Replacement	Yes, Code Class 3

7. **Description Of Work Performed:** Modified drain line to valve FPC-V-104. The work was performed as follows
- 1) Installed new piping material
 - 2) Made required welds
 - 3) Installed new support material
 - 4) Made required welds
 - 5) Performed pressure test to confirm pressure boundary integrity. 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: * Pslg Test Temperature: 75.6° F
 Component Design Pressure: 150 Pslg Temperature: 175° F

9. Remarks: * The welds were visually examined during refueling when the reactor well was flooded (Static head)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Amca
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/21/94 Date 6-22-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 3-25-91 to 6-23-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Waggath Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 6-23-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS)

Address: 3000 George Washington Way, Richland, Washington

Date: 8/10/94

Sheet: 1 of 1

2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)

Address: Hanford Reservation, Benton County, Washington

Unit: WNP-2

3. (a) **Work Performed By:** Bechtel Construction Company, PO Box 600, Richland, WA

(b) **Repair Organization P.O. No, Job No, etc.:** C30236

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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308

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

Name Of Component	Name Of Manufacturer	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)-HPCS	WPPSS	DO(1)-HPCS-P1	N/A	N/A	1982	Replacement	Yes, Code Class 3

7. **Description Of Work Performed:** Installed fill header lines associated with storage tanks DO-TK-1A, DO-TK-1B and DO-TK-2.

The replacement work was performed as follows

- 1) Installed new pipe and fitting material
- 2) Made required circumferential butt welds
- 3) Installed new valve
- 4) Installed new bolting material for the flanged joints
- 5) Performed pressure test to confirm pressure boundary integrity of the welded joints. No evidence of leakage during the pressure test
- 6) Performed pressure test to confirm pressure boundary integrity of the flanged joints. There was evidence of leakage during the pressure test for the flanged joints. The leakage 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 None
 Test Pressure: 113 Psig/Atmospheric Test Temperature: 64.6/41° F
 Component Design Pressure: 100 Psig Temperature: 120° F

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

EPN No	Serial No	EPN No	Serial No
DO-V-57	59387-1A	DO-V-85	V-1943-001
DO-V-58	59387-4B	DO-V-86	V-1943-002
DO-V-59	59387-4A	DO-V-87	V-1943-003
DO-V-60	59387-4B		

Pneumatic test pressure of 113 Psig and test temperature of 64.6° F. Nominal operating pressure test of atmospheric and test temperature of 41° 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 R. Moeen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 8/10/94 Date 8-11-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 11-17-92 to 8-15-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Sheppards Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 8-15-94

FORM NPV-1 (back)

Mfr. Serial No. 59387-1A & 59387-4A thru 4C

8. Remarks _____

9. Design conditions 100 / (pressure) psi 120 (temperature) °F or valve pressure class 150 (1)

10. Cold working pressure 275 psi at 100°F

11. Hydrostatic test 425 / psi Temp. 40-125 °F Disk differential test pressure 305 / psi

CERTIFICATION OF DESIGN

Design Specification certified by Charles Douglas Scott Prof. Eng. state WA Reg. No. 21556
 Design Report certified by N/A Prof. Eng. state _____ Reg. No. _____

CERTIFICATE OF SHOP 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.

N Certificate of Authorization No. N-1846 Expires 9/2/92

Date 6/30/92 Name Fisher Controls Int'l, Inc. Signed Robert D. Davis
 (N Certificate Holder) (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 NY and employed by HERIOT CO of CT have inspected the pump, or valve, described in this Data Report on 30 JUN 19 92, 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 30 JUN 19 92.

[Signature] (Inspector) Commissions NBBI 11311001
 (Nat'l Bd., (incl. endorsements) State, Prov. and No.)

(1) For manually operated valves only.

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

Quadrif
Pg. 1 of 1
8/10/94

V-1943

- Manufactured and certified by ANCHOR/DARLING ENTERPRISES, INC., 32 MOULTON ST., LACONIA, NH
(name and address of N Certificate Holder) 03246
- Manufactured for WASHINGTON PUBLIC POWER SYSTEM, P.O. BOX 968, RICHLAND, WA 99352-0968
(name and address of Purchaser or Owner)
- Location of installation NORTH POWER PLANT LOOP, RICHLAND, WA 99352
(name and address)
- Model No., Series No., or Type 2498-03-100 Drawing 2498-03-100 Rev. A CRN N/A
- ASME Code, Section III, Division 1: 1971 WINTER 1973 3 N/A
(edition) (addenda date) (class) (Code Case no.)
- Pump or valve VALVE Nominal inlet size 3" Outlet size 3"
(in.) (in.) HEX NUT: SA194-2H
- Material: Body SA240, T316 Bonnet N/A Disk SA479, T316 Bolting STUD: SA193 B7

(a) Cert. Holder's Serial No.	(b) Ncr'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disk Serial No.
V-1943-001	(TAG #D0-V-85)	V-42A	N/A	U-718
V-1943-002	(TAG #D0-V-86)	V-42A	N/A	U-718
V-1943-003	(TAG #D0-V-87)	V-42A	N/A	U-718

* 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.

985008520

8. Remarks 3" 150# WAFER TYPE BUTTERFLY VALVE

9. Design conditions 100 psi (120^o) °F or valve pressure class 150 (1)

10. Cold working pressure 275 psi at 100°F

11. Hydrostatic test 425 psi. Disk differential test pressure 310 psi

455006520

CERTIFICATION OF DESIGN

Design Specification certified by JACK R. COLE, JR. P.E. State WA Reg. no. 20653
Design Report certified by EDGAR J. BOLTON P.E. State MA Reg. no. 32600

CERTIFICATE OF SHOP 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-2865 Expires 7-3-95

Date 4-6-93 Name ANCHOR/DARLING ENTERPRISES, INC. Signed [Signature]
(N 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 NEW HAMPSHIRE and employed by HARTFORD STEAM BOILER of HARTFORD, CT have inspected the pump, or valve, described in this Data Report on 4/6 19 93, 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 held in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this report.

Date 4/6/93 Signed [Signature] Commissions NH "NBCEI"
(Authorized Inspector) (Natl. Bd. (incl. endorsement) state or prov. and no.)

(1) For manually operated valves only.

4-6-93



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

- 1. Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/15/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. Identification Of System: Residual Heat Removal (RHR) 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	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-50A	Velan	0415	N/A	N/A	1977	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed:** Replaced body to bonnet bolting material for valve RHR-V-50A. The replacement work was performed as follows
- 1) Installed new studs for the valve body to bonnet flanged joint
 - 2) Installed new nuts for the valve body to bonnet flanged joint
 - 3) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 1021 Psig Test Temperature: 200.7° F
 Component Design Pressure: 1650 Psig Temperature: 575° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. Man
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 2-25-94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

D. Huggan Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94



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

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 1. Owner: Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington | Date: 6/21/94
Sheet: 1 of 1 |
| 2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington | Unit: WNP-2 |
| 3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS) | |
| 4. Identification Of System: Reactor Water Clean Up (RWCU) 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 | |
| 6. Identification Of Components Repaired Or Replaced And Replacement Components | |

Name Of Component	Name Of Manufacturer	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(1)-4	WPPSS	RWCU(1)-4-P1	N/A	N/A	1983	Replacement	Yes, Code Class 3

7. Description Of Work Performed: Replaced pipe cap for connection with valve RWCU-V-622



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. Amoen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/21/94 Date 6-22-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 8-27-92 to 6-23-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Bergant Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 6-23-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/15/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B35-G001A	WPPSS	B35-G001A-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Replaced nuts for RRC - Loop A pump suction side decon flanged joint. The replacement work was performed as follows
- 1) Removed existing nuts for the flanged joint
 - 2) Installed new nuts for the flanged joint
 - 3) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 1021 Psig Test Temperature: 200.7° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By [Signature]
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4-13-94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be 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 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/8/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Bechtel Construction, Inc, PO Box 600, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** C20069
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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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 relief valve CAC-RV-65A and associated piping. The replacement work was performed as follows

- 1) Removed existing piping material and the relief valve
- 2) Installed new piping material
- 3) Installed new valve CAC-V-29A
- 4) Made required socket welds
- 5) Performed PT examination on the final socket welds. PT examination results acceptable
- 6) Installed new relief valve CAC-RV-65A
- 7) Installed new bolting material for the relief valve flanged joint
- 8) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 38.5/63.5 Psig Test Temperature: 78/77° F
 Component Design Pressure: 50 Psig Temperature: 350° F

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

EPN No	Serial No
CAC-V-29A	GT 1418
CAC-RV-65A	137317 1 1

- 1) Nominal operating pressure test on the flanged joints - test pressure of 38.5 Psig and test temperature of 78° F
- 2) Pneumatic test on the welded joints - test pressure of 63.5 Psig and test temperature of 77° 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 ATMoe
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/8/94 Date 7-11-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 1-26-94 to 7-11-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dr. Vaggarth Commissions 9556W NBS
 Inspector's Signature National Board, State, and Endorsements
 Date 7-11-94

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: 2-0879

1. Manufactured by Dragon Valves, Inc., 13457 Excelsior Dr., Norwalk, CA 90650
(Name and Address of N Certificate Holder)
2. Manufactured for WSH/Roecon/CERT P. O. Box 1040, Richland, WA 99352
(Name and Address of Purchaser or Owner)
3. Location of Installation WPPSS, Hanford Jobsite #2, Richland, WA 99352
(Name and Address)
4. Pump or Valve Valve Nominal Inlet Size 3/4 SW Outlet Size 3/4 SW
(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) <u>502FN0511SWD2</u>	<u>GT1418</u>	<u>N/A</u>	<u>13753</u>	<u>2</u>	<u>N/A</u>	<u>1981</u>
(2) <u>thru</u>						
(3) <u>GT1427</u>					<u>WRG BR 215-23037</u>	
(4) <u>CAC-V-29A, SIN GT1418</u>						
(5) <u>Setup Sup's</u>						
(6) <u>7/854</u>						
(7)						
(8)						
(9)						
(10)						

RECEIVED JUL 30 1982

5. Instrument Shut-off Valves (10 Pcs.)
(Brief description of service for which equipment was designed)

6. Design Conditions _____ psi _____ °F or Valve Pressure Class 2500 (1)

(pressure) (temperature)

7. Cold Working Pressure 6000 psi at 100°F.

8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings <u>None</u>			
(b) Forgings			
<u>Body</u>	<u>ASME SA182 Gr. F316</u>	<u>Jessop Steel Co.</u>	<u>HT 30990</u>

REVIEWED

JUL 30 1982

BECHTEL QUALITY CONTROL

BY: JH

(1) For manually operated valves only.

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bohing None			
(d) Other Parts			
Disc	Stellite Alloy 6B	Cabot Corp. Stellite	HT 1810-3-1071
Bonnet	ASME SA479 TY 316	Joslyn Stainless	HT 76285
Union Nut	ASME SA479 TY 316	Joslyn Stainless	HT 71226

WBG BR 215-23037

2 1 2 0 1 0 3 3 7

9. Hydrostatic test 9000 psi. Disk Differential test pressure 6000 psi.

CERTIFICATE OF COMPLIANCE

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

Addenda 6-30-75 (Date), Code Case No. N/A, Date January 20, 1981

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

Our ASME Certificate of Authorization No. N-1033 to use the N (N) symbol expires 5-6-81 (Date)

CERTIFICATION OF DESIGN

Design information on file at: NSH/Boason/GERT

Stress analysis report (Class I Only) on file at not applicable

Design specifications certified by (1) David J. Murphy

PE State WA Reg. No. 12542

Stress analysis certified by (1) not required

PE State _____ Reg. No. _____

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by DOSH of CALIFORNIA have inspected the pump, or valve, described in this Data Report on Jan 22, 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 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 Jan 22, 19 81

[Signature]
(Inspector)

Commissions Ca 658
(Nat'l Bd., State, Prov. and No.)

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

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

Pg. 1 of 2

1. Manufactured and certified by Kunkle Industries, Inc.
(name and address of NV Certificate Holder) Loergeran Valve Division, 8222 Bluffton Road, Fort Wayne, TN 46809 PLAN NO. 2-0879
- Manufactured for Washington Public Power Supply System, Accts. Pay M D 055, PO Box 968, Richland, WA 99352-0968
(name and address of Purchaser)
3. Location of installation Washington Public Power Supply System, WNP-2 OPS WHS Complex, WHSE 1, No. Power Plant Loop,
(name and address) Richland, WA 99352
4. Valve ND10HS021-DG0045 Orifice size 1.052 Nom. inlet size 1.5" Outlet size 3"
(model no., series no.) (in.) (in.) (in.)
5. ASME Code, Section III, Division 1: 1989 1990 2 N/A
(edition) (addenda date) (class) (Code Case no.)
6. Type Spring 45 N/A 450° F 68 at 33 °F
(spring, pilot or power operated) (set pressure, psig) (blowdown, psi) (rated temp.) (hydra. test, psig, inlet)
7. Identification 137317-1-2 N/A A930277 Rev. 1 N/A 1994
(Cert. Holder's serial no.) (CRN) (drawing no.) (Mater. Bd. no.) (year built)
8. Control ring settings N/A
CAC-RV-65A, S/N 137317-1-1
9. Pressure retaining items:

Rudip Bui
 7/8/94

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	T3736-1 / T3732-2	SA-216 WCB	70 ksi
Bonnet XXXXXX	T3169-1 / T3169-6	SA-216 WCB	70 ksi
XXXXXX Stem	94918-12 / 94918-16	SA-479 TY 316	75 ksi
Nozzle	23016	SA-479 TY 316	75 ksi
Disk	702395	SA-479 TY 316	75 ksi
XXXXXX Cap	H7069-11 / H7069-27	SA-216 WCB	70 ksi
XXXXXX 3/8" Plug	73028	SA-479 TY 316	75 ksi
XXXXXX Spring Step	870890	SA-479 TY 316	75 ksi
Spring	A7471H	ASTM A-313 TY 316	*
XXXXXX Heavy Hex Nut	8079541/N/C	SA-194 Gr. 2H	N/A
XXXXXX Gag Plug Screw	30091	SA-479 TY 316	75 ksi
** Ring Pin Screw	30091	SA-479 TY 316	75 ksi

10. Relieving capacity 81,500 lb./hr. (163 GPM) @ 10% overpressure as certified by the National Board 01/25/85
(steam or fluid, lb/hr) (psi) (date)

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

** Stud	8866612	SA-193 Gr. B7	125 ksi
Compression Screw	99682	SA-479 TY 316	75 ksi

CERTIFICATION OF DESIGN

Design Specification certified by A. Mostala P.E. State WA Reg. no. 28777
 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 3-18-94 Name Kunkle Industries, Inc. Loergeran Valve Division Signed Rudip Bui
(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.

3/19/94

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

MARCH 18, 1994 have inspected the valve described in this Data Report 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 3-18-94 Signed Richard J. Pracy Commissions NB 7444 (NB 11A), Ind 840
(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:** Washington Public Power Supply System (WPPSS) **Date:** 8/2/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Bechtel Construction, Inc, PO Box 600, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** C20069
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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

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

7. Description Of Work Performed: Replaced relief valve CAC-RV-65B and associated piping. The replacement work was performed as follows

- 1) Removed existing piping material and the relief valve
- 2) Installed new piping material
- 3) Installed new valve CAC-V-29B
- 4) Made required socket welds
- 5) Performed PT examination on the final socket welds. PT examination results acceptable
- 6) Installed new relief valve CAC-RV-65B
- 7) Installed new bolting material for the relief valve flanged joint
- 8) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 38.5/63 and 63.5 Psig Test Temperature: 83/76.2 and 70° F
 Component Design Pressure: 50 Psig Temperature: 350° F

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

<u>EPN No</u>	<u>Serial No</u>
CAC-V-29B	PB 1029
CAC-RV-65B	137317 1 2

- 1) Nominal operating pressure test on the flanged joints - test pressure of 38.5 Psig and test temperature of 83° F
- 2) Pneumatic test on the welded joints - test pressure of 63 and 63.5 Psig and test temperature of 76.2 and 70° 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 RXT Meier
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 8/2/94 Date 8-2-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 1-26-94 to 8-4-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

DM. [Signature] Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 8-4-94

Kunkle Industries, Inc.

- Manufactured and certified by Lonegan Valve Division, 8222 Bluffton Road, Fort Wayne, TN 46809 PLAN No. 2-088C
(name and address of NV Certificate Holder)
- Manufactured for Washington Public Power Supply System, Accts. Pay M D 055, PO Box 968, Richland, WA 99352-0968
(name and address of Purchaser)
- Location of installation Washington Public Power Supply System, WNP-2 OPS WHS Complex, WHSE 1, No. Power Plant Loop, Richland, WA 99352
(name and address)
- Valve ND10HS021-DG0045 Orifice size 1.052 Nom. inlet size 1.5" Outlet size 3"
(model no., series no.) (in.) (in.) (in.)
- ASME Code, Section III, Division 1: 1989 1990 2 N/A
(edition) (addenda date) (class) (Code Case no.)
- Type Spring 45 N/A 450° F 68 at 33 °F
(spring, plug, cap, power operated) (test pressure, psig) (blowdown, psig) (rated temp.) (hydra. test, psig, inlet)
- Identification 137317-1-2 N/A A930277 Rev. 1 N/A 1994
(Cert. Holder's serial no.) (CRN) (drawing no.) (Nat'l. Bd. no.) (year built)
- Control ring settings N/A
- Pressure retaining items: CAC-RV-65B, S/N 137317-1-2
Deadup Swch
7/23/94

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body	T3736-1 / T3732-2	SA-216 WCB	70 ksi
Bonnet XXXXXX	T3169-1 / T3169-5	SA-216 WCB	70 ksi
XXXXXX Stem	94918-12 / 94918-16	SA-479 TY 316	75 ksi
Nozzle	23016	SA-479 TY 316	75 ksi
Disk	702395	SA-479 TY 316	75 ksi
XXXXXX Cap	H7069-11 / H7069-27	SA-216 WCB	70 ksi
XXXXXX 3/8" Plug	73028	SA-479 TY 316	75 ksi
XXXXXX Spring Step	870890	SA-479 TY 316	75 ksi
Spring	A7471H	ASTM A-313 TY 316	±
XXXXXX Heavy Hex Nut	8079541 N/A	SA-194 Gr. 2H	N/A
XXXXXX Gag Plug Screw	30091	SA-479 TY 316	75 ksi
** Ring Pin Screw	30091	SA-479 TY 316	75 ksi

10. Relieving capacity 81,500 lb./hr. (163 GPM) @ 10% 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 NC-2000 but meets design requirements of NC-3595.

** Stud	8866612	SA-193 Gr. B7	125 ksi
Compression Screw	99682	SA-479 TY 316	75 ksi

CERTIFICATION OF DESIGN

Design Specification certified by A. Mostala P.E. State WA Reg. no. 28777
 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 3-18-94 Name Kunkle Industries, Inc. Lonegan Valve Division Signed [Signature]
(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.

2/19/94

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 MARCH 18, 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 3-18-94 Signed Richard J. Duce Commissions NB 7444 (NB 114), Ind 840
(Authorized Inspector) (Net L. Bd. (incl. endorsements) and state or prov. and no.)

***CORRECTED DATA REPORT**
ASME NPTV-1 N CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES 2 of 2
 As Required by the Provisions of the ASME Code, Section II, Div. 1

FORM NPTV-1 (Rev. 11-64)

1 Manufactured by Research Valves, Inc. 13522 Excelsior Dr., Norwalk, CA 90630
 (Name and Address of Manufacturer)
 2 Manufactured for WPPSS, 3000 George Washington Way, Richmond, VA 23221-0988
 (Name and Address of Purchaser or Owner)
 3 Location of Installation WPN-2 Plant, Richmond, VA 23232
 (Name and Address)
 4 Pump or Valve Valve Nominal Inlet Size 1/2 Outlet Size 1/2
 (inches) (inches)
 (a) Model No., (b) N Certificate Holder's Serial No., (c) Condon Registration No., (d) Drawing No., (e) Class, (f) NPS, (g) Year
 or Type No. No. No. No. No. No. No.
 (1) 507FHO325UD7 PA1028 None 12753 7 None 1983
 (2) shpu
 (3) PA1028
 (4) _____
 (5) _____
 (6) _____
 (7) _____
 (8) _____
 (9) _____
 (10) _____

CAC-V-298, 3/N PA1029

5 Insulation Shut-off and Drain Valves (9 Pcs.)
 (and description of service for which equipment was designed)

6 Design Conditions Pressure per Temperature T or Valve Pressure Class 2500 (1)
 7 Cold Working Pressure 8000 psi at 100°F.
 8 Pressure Rating Factor _____

Mark No	Material Spec No	Manufacturer	Remarks
(a) Castings <u>None</u>			
(b) Forgings			
<u>Body</u>	<u>ASME SA182 Gr. F316</u>	<u>Allen Forge Co.</u>	<u>HT 103553</u>

* Supplemental sheets in form of top sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information on 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 the form.
 (10/61) This form (10021) may be obtained from the Order Dept., ASME, 316 E. 67th St., New York, N.Y. 10021

Mark No	Material Spec No	Manufacturer	Remarks
(a) Castings <u>None</u>			
(b) Discs	<u>Stainless Alloy 6B</u>	<u>Cobas Corp.</u>	<u>WT 1810-3-1043</u>
<u>Bonnet</u>	<u>ASME SA479 TY 316</u>	<u>Cerberus Steel</u>	<u>WT 849663</u>
<u>Union Nut</u>	<u>ASME SA479 TY 316</u>	<u>Crucible Spec. Mel.</u>	<u>WT A19603</u>

9 My annual net 9000 pd. This Data Report net present 8000 pd.
 * Addenda 6/30/78 CERTIFICATE OF COMPLIANCE DVI shpu ANI PA1028
 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 II, Div. 1, Edition 1974, Code Case No. None, Date Nov 12, 1983.
 Signed DRAGON VALVES, INC by [Signature]
 Our ASME Certificate of Authorization No. N-1033 to use the ASME symbol applies to this Data Report.

CERTIFICATION OF DESIGN
 Design information on file at Washington Public Power Supply System
 Stress analysis reports (Class 2 only) on file at not applicable
 Design specifications certified by (1) Shafiq H. Bifary
 PE State VA Reg No. 11828
 Stress analysis certified by (1) not required
 PE State _____ Reg No. _____
 (1) Signature not required (1) 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 my State of CALIFORNIA and employed by POEM of CALIFORNIA have inspected the pump, or valve, described in this Data Report on May 12, 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 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 the employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
 Date May 12, 1983 Commission CAISS
[Signature] (with SS, State, Name and No.)

RECEIVED
 920

V-MRR-14084

PAGE- 37 of 48



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

- 1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 5/16/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
- 2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
- 3. **(a) Work Performed By:** Bechtel Construction, Inc, PO Box 600, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: C20069
- 4. **Identification Of System:** Standby Liquid Control (SLC) 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	1982	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Fabricated and installed modified connection with valves SLC-V-42 and SLC-V-43. The fabrication and installation work was performed as follows

- 1) Fabricated pipe nipple
- 2) Performed PT examination on the final machined surfaces of the pipe nipple. PT examination results acceptable
- 3) Beveled the socket ends of the new valves for butt welding
- 4) Performed PT examination on the beveled ends of both the valves. PT examination results acceptable
- 5) Cut and removed the existing connection
- 6) Installed pipe nipple and valves and made required welds
- 7) Performed PT examination on the final welds. PT examination results acceptable
- 8) Performed RT examination on the final circumferential butt welds. RT examination results acceptable



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

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

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

<u>EPN No</u>	<u>Serial No</u>
SLC-V-42	PB 1151
SLC-V-43	PB 1152

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Main
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 5/16/94 Date 5-17-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 1/12/93 to 5/17/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Jim Abbott Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 5/17/94

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. 2-0881

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

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

	Series No. or Type	Serial No.	Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Std. No.	(g) Year Built
(1)	7N057SWD	PB1144	N/A	16954	1	N/A	1992
(2)		thru		Rev. N/C			
(3)		PB1153					
(4)							
(5)	<u>EPN No.</u>	<u>SERIAL No.</u>					
(6)							
(7)	<u>SLC-V-42</u>	<u>PB 1151</u>					
(8)	<u>SLC-V-43</u>	<u>PB 1152</u>					
(9)							
(10)							

INFORMATION ONLY

Valve Sample
9/27/93

- 5. Globe Valve (10Pcs.)
(Brief description of service for which equipment was designed)

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

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

SATISFACTORY ~~UNSATISFACTORY~~
Mark Bell II 11/15/93
RECEIVED INSPECTOR / LEVEL / DATE

(1) For manually operated valves only.

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting	N/A		
(d) Other Parts			
HT.853543	ASME SA564 Gr. 630	Carpenter Steel	Disc

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

CERTIFICATE OF COMPLIANCE

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

Addenda W'76 Code Case No. N/A Date June 11, 1992

Signed Dragon Valves, Inc. by [Signature]
(N Certificate Holder)

Our ASME Certificate of Authorization No. N-1033 to use the N symbol expires 5-6-93
(Date)

CERTIFICATION OF DESIGN

Design information on file at Washington Public Power Supply Systems

Stress analysis report (Class 1 only) on file at Washington Public Power Supply Systems

Design specifications certified by (1) James F. Hagen, Jr.
PE State WA Reg. No. 13579

Stress analysis certified by (1) Harold M. Braund
PE State CA Reg. No. M20589

(1) Signature not required. List name only.

SATISFACTORY UNSATISFACTORY
[Signature] 7-1-92
RECEIVED INSPECTOR / LEVEL / 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 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 6-15 19 92, 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 6-15 19 92
[Signature] Commissions CA 1192
(Inspector) (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

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Bechtel Construction, Inc, PO Box 600, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: C20069</p> <p>4. Identification Of System: Process Instrument (PI) System</p> <p>5. (a) Applicable Construction Code: ASME Section III Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: None
 (b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 5/16/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
PI(1)-4S-X-77Ad	JCI	PI(1)-4S-X-77Ad	N/A	N/A	1983	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed:** Fabricated and installed modified connection with valves PSR-V-001/3 and PSR-V-001/4. The fabrication and installation work was performed as follows
- 1) Fabricated pipe nipple
 - 2) Performed PT examination on the final machined surfaces of the pipe nipple. PT examination results acceptable
 - 3) Beveled the socket ends of the new valves for butt welding
 - 4) Performed PT examination on the beveled ends of both the valves. PT examination results acceptable
 - 5) Cut and removed the existing connection
 - 6) Installed pipe nipple and valves and made required welds
 - 7) Performed PT examination on the final welds. PT examination results acceptable
 - 8) Performed RT examination on the final circumferential butt welds. RT examination results acceptable



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

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

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

EPN No	Serial No
PSR-V-001/3	PB 1144
PSR-V-001/4	PB 1149

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. J. Moen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 5/16/94 Date 5-17-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 1-12-93 to 5-17-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Haggarth Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 5/17/94

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

PLAN 2-0884

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

(a) Model No., (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)	7N057SWD	PB1144	N/A	16954	1	N/A	1992
(2)		thru		Rev. N/C			
(3)		PB1153					
(4)							
(5)		<u>EPN No.</u>		<u>SERIAL No.</u>			
(6)							
(7)		<u>PSR-V-001/3</u>		<u>PB1144</u>			
(8)		<u>PSR-V-001/4</u>		<u>PB1149</u>			
(9)							
(10)				<u>Quadrup Equip</u>			

INFORMATION ONLY

5. Globe Valve (10Pcs.)
(Brief description of service for which equipment was designed)

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

7. Cold Working Pressure 3600 psi at 100°F.
 8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
<u>N/A</u>			
(b) Forgings			
<u>HT.AJ9467</u>	<u>ASME SA182 TY. F316</u>	<u>Ajax Forge Co.</u>	<u>Body</u>
<u>HT.A19167</u>	<u>ASME SA182 Gr. F316</u>	<u>Ajax Forge Co.</u>	<u>Bonnet Yoke</u>

UNSATISFACTORY
 SATISFACTORY
Mark Bell 11/1-92
 RECEIVED INSPECTOR / LEVEL / DATE

(1) For manually operated valves only.

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting N/A			
(d) Other Parts			
HT.853543	ASME SA564 Gr. 630	Carpenter Steel	Disc

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

CERTIFICATE OF COMPLIANCE

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

Addenda W-76 (Date), Code Case No. N/A, Date June 11, 1992

Signed Dragon Valves, Inc. by [Signature]
(N Certificate Holder)

Our ASME Certificate of Authorization No. N-1033 to use the N symbol expires 5-6-93
(N) (Date)

CERTIFICATION OF DESIGN

Design information on file at Washington Public Power Supply Systems

Stress analysis report (Class 1 only) on file at Washington Public Power Supply Systems

Design specifications certified by (1) James F. Hagen, Jr.
PE State WA Reg. No. 13579

Stress analysis certified by (1) Harold M. Braund
PE State CA Reg. No. M20589

(1) Signature not required. List name only.

SATISFACTORY UNSATISFACTORY

[Signature] II 7-1-92
RECEIVED INSPECTOR / LEVEL / 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 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 6-15 19 92, 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 6-15 19 92
[Signature] Commissions CA 1194
(Inspector) (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

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Bechtel Construction, Inc, PO Box 600, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: C20069</p> <p>4. Identification Of System: Process Instrument (PI) System</p> <p>5. (a) Applicable Construction Code: ASME Section III Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: None
 (b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 5/16/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
PI(1)-4S-X-77Ac	JCI	PI(1)-4S-X-77Ac	N/A	N/A	1983	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed:** Fabricated and installed modified connection with valves PSR-V-002/3 and PSR-V-002/4. The fabrication and installation work was performed as follows
- 1) Fabricated pipe nipple
 - 2) Performed PT examination on the final machined surfaces of the pipe nipple. PT examination results acceptable
 - 3) Beveled the socket ends of the new valves for butt welding
 - 4) Performed PT examination on the beveled ends of both the valves. PT examination results acceptable
 - 5) Cut and removed the existing connection
 - 6) Installed pipe nipple and valves and made required welds
 - 7) Performed PT examination on the final welds. PT examination results acceptable
 - 8) Performed RT examination on the final circumferential butt welds. RT examination results acceptable



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

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

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

EPN No Serial No
 PSR-V-002/3 PB 1145
 PSR-V-002/4 PB 1147

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. X. Maen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 5/16/94 Date 5-17-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 1-12-93 to 5-17-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

D. J. Hagan Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 5-17-94

Mark No.	Material Spec. No.	Manufacture	Remarks
(c) Bolting N/A			
(d) Other Parts			
HT-853543	ASME SA564 Gr. 630	Carpenter Steel	Disc

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

CERTIFICATE OF COMPLIANCE

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

Addenda W-76, Code Case No. N/A, Date June 11, 1992

Signed Dragon Valves, Inc. by [Signature]
(In Certificate Holder)

Our ASME Certificate of Authorization No. N-1033 to use the N symbol expires 5-6-93
(Date)

CERTIFICATION OF DESIGN

Design information on file at Washington Public Power Supply Systems

Stress analysis report (Class 1 only) on file at Washington Public Power Supply Systems

Design specifications certified by (1) James F. Hagen, Jr.
PE State WA Reg. No. 13579

Stress analysis certified by (1) Harold M. Braund
PE State CA Reg. No. M20589

(1) Signature not required. List name only.

SATISFACTORY UNSATISFACTORY
[Signature] II 7-1-92
RECEIVED INSPECTOR / LEVEL / 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 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 6-15 1992, 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 6-15 1992
[Signature] (Inspector) Commissions CA 1194
(Not' No., 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: Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington | Date: 3/22/94
Sheet: 1 of 1
Unit: WNP-2 |
| 2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington | |
| 3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS) | |
| 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 | |
| 6. Identification Of Components Repaired Or Replaced And Replacement Components | |

Name Of Component	Name Of Manufacturer	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	1971	Repair	No, Code Class 1 Nozzles

7. Description Of Work Performed: Refurbished (reconditioned) spare nozzles for future use for Main Steam Relief Valves (MSRV's). When need arises, the spare refurbished (reconditioned) nozzles will be installed in Main Steam Relief Valves (MSRV's) under separate ASME Section XI Work Plans. The spare nozzles were refurbished (reconditioned) as follows

- 1) Machined the spare nozzle seating surfaces
- 2) Performed PT examination on the final machined seating surfaces of the spare nozzles. PT examination results acceptable

The following is a listing of the spare nozzles which were refurbished (reconditioned) and stored for future use

<u>Nozzle No</u>	<u>Nozzle Serial No</u>	<u>Nozzle No</u>	<u>Nozzle Serial No</u>
1	N93184-38-0067	9	N93184-42-0104
2	N93184-33-0070	10	N93184-38-0059
3	N93184-44-0107	11	N93184-33-0053
4	N93184-33-0055	12	N93184-44-0111
5	N93184-42-0101	13	N93184-33-0065
6	N93184-33-0074	14	N93184-33-0072
7	N93184-36-0118	15	N93184-41-0099
8	N93184-44-0113	16	N93184-33-0068



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By RAMCOE
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 3/22/94 Date 3-22-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 2/26/93 to 3/24/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hoegarty Commissions 9550 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 3/24/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/7/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	Replacement	Yes, Code Class 2

7. **Description Of Work Performed:** Modified existing Restricting Orifice (RO) plates HPCS-RO-8 and HPCS-RO-9. The work was performed as follows
- 1) Added ten (10) more holes in Restricting Orifice (RO) plate HPCS-RO-8
 - 2) Reinstalled the modified Restricting Orifice (RO) plate HPCS-RO-8 in the piping system
 - 3) Added four (4) more holes in Restricting Orifice (RO) plate HPCS-RO-9
 - 4) Reinstalled the modified Restricting Orifice (RO) plate HPCS-RO-9 in the piping system
 - 5) Performed pressure test to confirm pressure boundary integrity. 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 None
Test Pressure: 390 Psig Test Temperature: 71° F
Component Design Pressure: 1575 Psig Temperature: 212° 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 Dulip Singh Signed By RT Moore
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/7/94 Date 7-7-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-9-93 to 6-27-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Woyganoff Commissions 9556 W NBI
Inspector's Signature National Board, State, and Endorsements

Date - 7-11-94



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

- 1. Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/25/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
- 2. Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
- 3. (a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
- 4. Identification Of System:** Reactor Pressure Vessel (RPV)
- 5. (a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RPV	CBI Nuclear	T45	8	N/A	1974	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed:** Replaced Local Power Range Monitoring (LPRM) incore assembly. The replacement work was performed as follows
- 1) Removed existing Local Power Range Monitoring (LPRM) incore assemblies
 - 2) Installed new Local Power Range Monitoring (LPRM) incore assemblies



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

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

9. Remarks: See attached N-2 Code Data Report for the following new Local Power Range Monitoring (LPRM) incore assembly

Core Location	LPRM Serial No
16-25	M426
16-41	M424
24-33	M425
24-41	M435
32-41	M430
32-57	M437
48-25	M429

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Amoen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/25/94 Date 7-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4/29/94 to 6/28/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hoggarth Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/5/94

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

As required by the Provisions of the ASME Code Rules

Quidip Sur 3
6/24/93

- 1. (a) Manufactured by GE REUTER-STOKES, INC. 8499 DARROW ROAD, TWINSBURG, OHIO 44087
(Name and address of Manufacturer of part)
- (b) Manufactured for WNP-2 - WASHINGTON PUBLIC POWER SUPPLY SYSTEM, RICHLAND, WA 99352
(Name and address of Manufacturer of completed nuclear component)
- 2. Identification-Manufacturer's Serial No. of Part M423 thru M437 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No. RS-E5-1260-201 Drawing Prepared by GE REUTER-STOKES
- (b) Description of Part Inspected POWER RANGE DETECTOR DRY TUBE
- (c) Applicable ASME Code: Section III, Edition 1977, Addenda date SUMMER 1977, Case No. N/A Class 1
- 3. Remarks: DESIGN: PRESSURE 1250 PSIG, DESIGN TEMPERATURE 575°F
(Brief description of service for which component was designed)
HYDROSTATIC TEST PRESSURE: 1925 PSIG

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 2/25 19 92 Signed GE REUTER-STOKES By *[Signature]*
(Manufacturer) QUALITY ASSURANCE
Certificate of Authorization Expires SEPTEMBER 16, 1994 Certificate of Authorization No. N-2703

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at GE REUTER-STOKES, INC. TWINSBURG, OHIO CDS-C-5026-1
Stress analysis report on file at GE REUTER-STOKES, INC. TWINSBURG, OHIO CDR-C-5253-04
Design specifications certified by SURINDER L. KAMPANI Prof. Eng. State OH Reg. No. E-034113
Stress analysis report certified by DOUGLAS E. BACSO Prof. Eng. State OH Reg. No. E-044071

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 OHIO and employed by H.S.B.I. & I. Co. of HARTFORD, CT have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on 2-24 19 93, 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 2-25 19 93
[Signature] Commissions NB7920-A-N-OHIO-PAWK 2454
Inspector's Signature National Board, State, Province and No.

[Signature]
2-25-93



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

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Bechtel Construction Company, PO Box 600, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: C30236</p> <p>4. Identification Of System: Diesel Oil (DO) System</p> <p>5. (a) Applicable Construction Code: ASME Section III, Code Class 3, 1971 Edition with Winter 1972 Addenda, Code Case: None
 (b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 8/5/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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-TK-1A	Huico, Inc	SK-18-1	N/A	N/A	1975	Replacement	Yes, Code Class 3

- 7. Description Of Work Performed:** Installed ultrasonic (UT) sensor mount on tank DO-TK-1A . The work was performed as follows
- 1) Installed new manway cover plate on the existing manway nozzle
 - 2) Installed new piping material on the manway cover plate
 - 3) Made required welds
 - 4) Performed MT examination on the final circumferential butt weld. MT examination results acceptable
 - 5) Installed new mounting plate for the ultrasonic (UT) sensor
 - 6) Installed new bolting material



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By R. Man
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
Date 8/5/94 Date 8-5-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4-14-93 to 8-8-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be 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 9556W NBI
Inspector's Signature National Board, State, and Endorsements
Date 8-8-94



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 8/8/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Bechtel Construction Company, PO Box 600, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: C30236
4. **Identification Of System:** Diesel Oil (DO) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with Winter 1972 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-TK-1B	Huico, Inc	SK-1B-2	N/A	N/A	1975	Replacement	Yes, Code Class 3

7. **Description Of Work Performed:** Installed ultrasonic (UT) sensor mount on tank DO-TK-1B . The work was performed as follows
- 1) Installed new manway cover plate on the existing manway nozzle
 - 2) Weld repaired manway cover plate at four (4) places
 - 3) Blended weld repaired areas
 - 4) Performed MT examination on the final blended weld repaired areas. MT examination results acceptable
 - 5) Installed new piping material on the manway cover plate
 - 6) Made required welds
 - 7) Performed MT examination on the final circumferential butt weld. MT examination results acceptable
 - 8) Installed new mounting plate for the ultrasonic (UT) sensor
 - 9) Installed new bolting material



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By R. M. Coe
 Kuldip Singh Materials And Inspection Manager, Materials And Inspection
 Date 8/8/94 Date 8-8-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4-1-93 to 8-9-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Waggoner Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 8-9-94



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

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Bechtel Construction Company, PO Box 600, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: C30236</p> <p>4. Identification Of System: Diesel Oil (DO) System</p> <p>5. (a) Applicable Construction Code: ASME Section III, Code Class 3, 1971 Edition with Winter 1972 Addenda, Code Case: None
 (b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 8/5/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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-TK-2	Huico, Inc	SK-20	N/A	N/A	1975	Replacement	Yes, Code Class 3

- 7. Description Of Work Performed:** Installed ultrasonic (UT) sensor mount on tank DO-TK-2 . The work was performed as follows
- 1) Installed new manway cover plate on the existing manway nozzle
 - 2) Installed new piping material on the manway cover plate
 - 3) Made required welds
 - 4) Performed MT examination on the final circumferential butt weld. MT examination results acceptable
 - 5) Installed new mounting plate for the ultrasonic (UT) sensor
 - 6) Installed new bolting material



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By R. Mice
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 8/5/94 Date 8-5-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4-8-93 to 8-8-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Vagstad Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 8-8-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 3/10/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 And N-416
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

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

- 7. Description Of Work Performed:** Removed existing drain connection with valves MS-V-238B and MS-V-239. The replacement work was performed as follows
- 1) Cut and removed the existing drain connection
 - 2) Installed new pipe and pipe cap
 - 3) Made required socket welds
 - 4) Performed MT examination on the final socket welds. MT examination results acceptable. The MT examination satisfied both ASME Section III, Code Class 2 and Code Case N-416 requirements
 - 5) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test

Revision - Revised Item 9 "Remarks" (Underlined portion only).



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

8 Tests Conducted: Hydrostatic [] Pneumatic [] Nominal Operating Pressure [X] Other [] None
Test Pressure: 939.3 Psig Test Temperature: 535° F
Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: Visual examination (VT-2) for leakage at nominal operating pressure and temperature was performed in lieu of the required hydrostatic test as permitted by Code Case N-416. The required hydrostatic test will not be performed based on ASME Section XI, Article IWA-5214(d). See attached IOM from RA Moen/TL Mead to HE Kook, Subject - Justification for not performing hydrostatic test of repairs to Main Steam (MS) drip leg, dated February 22, 1994

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh, Materials And Inspection Signed By R.T. Moen, Manager, Materials And Inspection
Date 3/10/94 Date 3-11-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 1-29-93 to 8-23-93 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Inspector's Signature Date 3/14/94 Commissions 955611 NBE National Board, State, and Endorsements



INTEROFFICE MEMORANDUM

PLAN No. 2-0911

DATE: February 22, 1994

TO: HE Kook, Manager WNP-2 Licensing (PE20)

FROM: *Jerry Meade*
TL Meade, Manager Technical Programs (PE27)
RA Moen
RA Moen, Manager Materials and Inspection (PE22)

Building Swg's
3/10/94

SUBJECT: JUSTIFICATION FOR NOT PERFORMING HYDROSTATIC TEST OF REPAIRS TO
MS LINE DRIP LEG

REFERENCE:

From October 1988 through January 1993, several ASME Section XI work plans were implemented to perform repair/replacement work on the two-inch NPS drain connection attached to ASME Section III, Code Class 2 Main Steam system, Line "B" drip leg. ASME Section XI, Article IWA-4400 requires such repair/replacements to be hydrostatically tested. At the time the repair/replacements were performed, the hydrostatic tests were deferred using ASME Code Case N-416 which allows deferral of hydrostatic tests of piping that cannot be isolated by existing valves to the next scheduled system hydrostatic test. The next scheduled system hydrostatic test was anticipated to be the test required at a ten year interval.

During preparation for the ten year hydrostatic tests using Code Case N-498, it was noticed that ISI Program Plan, Note 4 of page 4-3 states that Class 2 portion of Main Steam line (downstream of outboard MS isolation valves) does not perform any safety function and is capable of automatic isolation, therefore no pressure test will be performed on these lines. This position was further confirmed with NRC during our request to use Code Case N-498 (Ref. letter G02-92-017, dated January 23, 1992). Use of Code Case N-498 for Class 1 and 2 piping systems allows leakage test at nominal operating pressure in lieu of the hydrostatic tests.

Independent review by a member of Plant Technical staff concluded that provisions of IWA-5214(d) can be used to justify waving hydrostatic test requirements for affected repairs. IWA-5214(d) states that when a system hydrostatic test imposes system conditions which conflict with limitations included in the plant Technical Specifications, a system inservice test at nominal operating temperature shall be acceptable in lieu of the system hydrostatic test. Justification for the application of this Article is as follows:

- The configuration of the affected piping requires that the Reactor Pressure Vessel (RPV) be included in the hydrostatic pressure boundary.
- The required hydrostatic test pressure for the affected piping is 1563 PSIG. To reach that pressure in the RPV would necessitate gagging the Safety Relief Valves (SRV's) because their set points are all less than the required test pressure.

- Technical Specification 2.1.3, Reactor Coolant System Pressure, limits reactor pressure to LE 1325 psig steam dome pressure (equivalent to 1375 psig at the lowest elevation of the reactor coolant system).
- The Pressure/Temperature curves for the RPV in Technical Specifications Figure 3.4.6.1 indicate the required temperature of the RPV to pressurize to 1563 PSIG is > 250 degrees F.
- With Reactor Coolant temperature > 200 degrees F, Technical Specifications require that the Mode Switch be in operational condition 3 (Hot Shutdown).
- Technical Specification 3.4.2b) requires 4 SRV's to be operable while in Mode 3 which would not be the case with all SRV's gagged.

This conflict with limitations of WNP-2 Technical Specifications allows application of Article IWA-5214(d). The inservice test required in lieu of the hydrostatic test was performed each time the repair/replacements were made and is documented on the Section XI work plans. NIS-2 form will be updated to reflect this position.

DISTRIBUTION:

LC Mauws/lb <u>LCM</u>	PE27
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**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required By The Provisions Of The ASME Code Section XI**

- 1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/28/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
- 2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
- 3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
- 4. **Identification Of System:** Service Water (SW) 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-44	Borg Warner	22342	N/A	N/A	1977	Repair	Yes, Code Class 2

- 7. Description Of Work Performed:** Made body to bonnet seal weld for valve SW-V-44. The work was performed as follows
- 1) Cut valve body to bonnet seal weld
 - 2) Removed valve internals for troubleshooting
 - 3) Prepped cut/ground areas on the valve body and the bonnet
 - 4) Reinstalled valve internals and the bonnet
 - 5) Made valve body to bonnet seal weld
 - 6) Performed PT examination on the final seal weld. PT examination results acceptable
 - 7) Performed pressure test to confirm pressure boundary integrity. 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 [X] Other [] None
Test Pressure: 342 Psig Test Temperature: 64.3° 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 [Signature] Signed By [Signature]
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
Date 6/28/94 Date 7-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 3/4/93 to 6/22/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be 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 9556 W NBSI
Inspector's Signature National Board, State, and Endorsements
Date 7/5/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/30/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Process Sample Radioactive (PSR) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: None
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
PSR-V-003/A	Target Rock	5	N/A	N/A	1982	Repair	Yes, Code Class 1

7. **Description Of Work Performed:** Made body to bonnet seal weld for valve PSR-V-003/A. The work was performed as follows
- 1) Cut valve body to bonnet seal weld
 - 2) Removed valve internals for troubleshooting
 - 3) Prepped cut/ground areas on the valve body and the bonnet
 - 4) Performed PT examination on the final prepped surfaces of the valve body and bonnet. PT examination results acceptable
 - 5) Installed new valve main disc
 - 6) Reinstalled the bonnet in the valve
 - 7) Made valve body to bonnet seal weld
 - 8) Performed PT examination on the final seal weld. PT examination results acceptable



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

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

9. Remarks: See attached N-2 Code Data Report for the new valve main disc, Serial No 2076

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 R. Amoa
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/30/94 Date 7-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4/19/94 to 7/1/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Haggard Commissions 9556W NBE
 Inspector's Signature National Board, State, and Endorsements
 Date 7/5/94

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

Rudolph Swig's
6/30/94
Pg 1 of 2

1. Manufactured and certified by Target Rock Corp.; 1966E Broadhollow Rd; E. Farmingdale, NY 11735
(name and address of 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 202539-1 SA-564 630 140 ksi N/A 1992
(drawing no.) (mat'l. spec. no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III: 1974 Winter 1975 1 None
(edition) (addenda) (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 No. 82M-001

PSR-Y-003/A, DISC S/N 2076

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) 2064	N/A
(2) 2076	N/A
(3) 2087	N/A
(4) 2096	N/A
(5) 2099	N/A
(6) 2102	N/A
(7) N/A	N/A
(8)	
(9)	
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Part or Appurtenance Serial Number	National Board Number In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
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(45)	
(46)	SATISFACTORY <input checked="" type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
(47)	<i>Victor Bell</i> 12-15-92
(48)	RECEIVED INSPECTOR / LEVEL / DATE
(49)	
(50)	

10. Design pressure N/A psi Temp. N/A °F. Hydro. test pressure 4285 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.
(6/85)-1 This form (E00040) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017.

CERTIFICATE OF DESIGN

Design specifications certified by G. L. Mayfield P. E. state OR Reg. no. 7140
(when applicable)

Design report* certified by J. Miazza P. E. state NY Reg. no. 51883
(when applicable)

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization no. 1948 Expires 12-12-92

Date 11/30/92 Name Target Rock Corporation Signed E. Brugada, Inc.
(NPT Certificate Holder) (authorized representative)
E. Champéy; Director, Q.A.

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 Commercial Union Insurance Company of Boston, Mass. have inspected these items described in this data report on 11/30/92 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 11/30/92 Signed William A. Ireland Commissions N. Y. STATE COMMISSION NO. 2
(Authorized Inspector) ALSO COMMISSIONED IN PENN., OHIO & CALIF.
(Nat'l. Bd. (incl. endorsements) state or prov. and no.)

SATISFACTORY UNSATISFACTORY
Wiantbell II / LEVEL / DATE 12-15-92
 INSPECTOR



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

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Process Sample Radioactive (PSR) System</p> <p>5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: None
 (b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/11/94</p> <p>Sheet: 1 of 1</p> <p>Unit: WNP-2</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
PSR-V-003/B	Target Rock	6	N/A	N/A	1982	Repair	Yes, Code Class 1

- 7. Description Of Work Performed:** Made body to bonnet seal weld for valve PSR-V-003/B. The work was performed as follows
- 1) Cut valve body to bonnet seal weld
 - 2) Removed valve internals for troubleshooting
 - 3) Prepped cut/ground areas on the valve body and the bonnet
 - 4) Performed PT examination on the final prepped surfaces of the valve body and bonnet. PT examination results acceptable
 - 5) Installed new valve main disc
 - 6) Reinstalled the bonnet in the valve
 - 7) Made valve body to bonnet seal weld
 - 8) Performed PT examination on the final seal weld. PT examination results acceptable



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

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

9. Remarks: See attached N-2 Code Data Report for the new valve main disc, Serial No 2096

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 R. Anon
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/11/94 Date 7-12-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4-19-93 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Inspector's Signature Commissions 9556W NBI
 National Board, State, and Endorsements
 Date 7-13-94

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

1. Manufactured and certified by Target Rock Corp.; 1966E Broadhollow Rd; E. Farmingdale, NY 11735 (name and address of 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 202539-1 (drawing no.) SA-564 630 (mat'l. spec. no.) 140 ksi (tensile strength) N/A (CRN) 1992 (year built)

5. ASME Code, Section III: 1974 (edition) Winter 1975 (addenda) 1 (class) None (Code Case no.)

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

7. Remarks: Spare parts for completed valve assembly Model No. 82M-001

PSR-V-003/B, DISC S/N 2096 Quail Sup's 7/11/94

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:

Table with 4 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order, Part or Appurtenance Serial Number, National Board Number in Numerical Order. Rows 1-25. Includes handwritten signature 'Vijaya Bell' and date '12-15-92' in row 46.

10. Design pressure N/A psi Temp. N/A °F. Hydro. test pressure 4285 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.

CERTIFICATE OF DESIGN

Design specifications certified by G. L. Mayfield P. E. state OR Reg. no. 7140
(when applicable)
Design report* certified by J. Miazza P. E. state NY Reg. no. 51883
(when applicable)

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization no. 1948 Expires 12-12-92
Date 11/30/92 Name Target Rock Corporation Signed E. Brinda Sr
(NPT Certificate Holder) (authorized representative)
E. Champéy; Director, Q.A.

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 Commercial Union Insurance Company of Boston, Mass. have inspected these items described in this data report on 11/30/92 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 11/30/92 Signed William C. Ireland Commissions N. Y. STATE COMMISSION NO. 228
(Authorized Inspector) ALSO COMMISSIONED IN PENN., OHIO & CO.
(Nat'l. Bd. (incl. endorsements) state or prov. and no.)

SATISFACTORY UNSATISFACTORY
Winkbell II 12-15-92
INSPECTOR / LEVEL / DATE



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

- 1. Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/19/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. Identification Of System: Equipment Drains Radioactive (EDR) System
5. (a) Applicable Construction Code: ASME Section III, Code Class 3, 1971 Edition with Winter 1972 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
EDR-V-40	Anchor Darling	3N 357	N/A	N/A	1975	Replacement	Yes, Code Class 3

- 7. Description Of Work Performed:** Installed bushing retainer tab for valve EDR-V-40. The work was performed as follows
- 1) Installed new bushing retainer tab
 - 2) Made required welds
 - 3) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 55 Psig Test Temperature: 73.8° F
 Component Design Pressure: 275 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 R. A. Moen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/19/94 Date 6-20-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5/18/93 to 5/12/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 9556W NBE
 Inspector's Signature National Board, State, and Endorsements
 Date 6/21/94



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

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Main Steam (MS) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 6/21/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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	N63790-00-0045	N/A	N/A	1981	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced disc insert and nozzle for spare main steam relief valve, Serial No N63790-00-0045.
 The replacement work was performed as follows

- 1) Removed existing disc insert and nozzle from the valve
- 2) Installed new disc insert and nozzle in the valve
- 3) Installed new studs for the valve inlet joint



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

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

9. Remarks: Pressure test to confirm pressure boundary integrity on the flanged joints will be performed when the spare valve is installed in the system under a separate ASME Section XI plan

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 RAMCOE
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/21/94 Date 6-22-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 8-3-93 to 6-23-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hoggarth Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 6-23-94



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

- 1. Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/21/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	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	N63790-00-0055	N/A	N/A	1980	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed:** Replaced disc insert and nozzle for spare main steam relief valve, Serial No N63790-00-0055.
 The replacement work was performed as follows
 1) Removed existing disc insert and nozzle from the valve
 2) Installed new disc insert and nozzle in the valve
 3) Installed new studs for the valve inlet joint



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

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

9. Remarks: Pressure test to confirm pressure boundary integrity on the flanged joints will be performed when the spare valve is installed in the system under a separate ASME Section XI plan

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Moore
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 6/21/94 Date 6-22-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-3-93 to 6-23-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hoggarth Commissions 9556 W NBI
Inspector's Signature National Board, State; and Endorsements

Date 6-23-94



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

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Main Steam (MS) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 6/21/84
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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	N63790-00-0051	N/A	N/A	1981	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed:** Replaced disc insert and nozzle for spare main steam relief valve, Serial No N63790-00-0051.
 The replacement work was performed as follows
- 1) Removed existing disc insert and nozzle from the valve
 - 2) Installed new disc insert and nozzle in the valve



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

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

9. Remarks: Pressure test to confirm pressure boundary integrity on the flanged joints will be performed when the spare valve is installed in the system under a separate ASME Section XI plan

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Amoen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/21/94 Date 6-22-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 8-3-93 to 6-23-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Abbott Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 6-23-94



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

- 1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/11/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
- 2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
- 3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
- 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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	N63790-00-0047	N/A	N/A	1981	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced disc insert, nozzle and inlet stud for spare main steam relief valve, Serial No N63790-00-0047. The replacement work was performed as follows

- 1) Removed existing disc insert and nozzle from the valve
- 2) Installed new disc insert and nozzle in the valve
- 3) Installed new stud for the valve inlet joint



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

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

9. Remarks: Pressure test to confirm pressure boundary integrity on the flanged joints will be performed when the spare valve is installed in the system under a separate ASME Section XI plan

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 RT Man
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/11/94 Date 7-12-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 8-3-93 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Vaggart Commissions 9556W NBI
Inspector's Signature National Board, State, and Endorsements

Date 7-13-94



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

- 1. Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/21/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	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-P-1A	Worthington	44 000019 (3 LR 9)	N/A	N/A	1977	Replacement	Yes, Code Class 3

- 7. Description Of Work Performed:** Replaced mechanical seals (gland plates) for pump FPC-P-1A. The replacement work was performed as follows
- 1) Removed existing inboard and outboard mechanical seals (gland plates) for the pump
 - 2) Installed new inboard and outboard mechanical seals (gland plates) in the pump
 - 3) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 92 Psig Test Temperature: 95° F
 Component Design Pressure: 150 Psig Temperature: 212° 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 RT Moore
 Kuldip Singh Materials And Inspection Manager, Materials And Inspection
 Date 6/21/94 Date 6-22-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 2-15-94 to 6-23-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Dan Hoggarth Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 6-23-94



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

1. Owner: Washington Public Power Supply System (WPPSS)

Address: 3000 George Washington Way, Richland, Washington

Date: 7/18/94

Sheet: 1 of 1

2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)

Address: Hanford Reservation, Benton County, Washington

Unit: WNP-2

3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA

(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)

4. Identification Of System: Controlled Chilled Water (CCH) 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CCH-CR-1B	York	02511	55257	N/A	1980	Repair And Replacement	Yes, Code Class 3

7. Description Of Work Performed: Repaired divider plate (baffle) and replaced divider bar for CCH-CR-1B. The repair and replacement work was performed as follows

A) Repairs For Inlet And Outlet Condenser Heads -

- 1) Prepared the divider plate (baffle) areas for weld repair
- 2) Weld repaired (weld built up) the divider plate (baffle)
- 3) Blended the weld repaired (weld built up) areas on the divider plate (baffle) to provide suitable sealing surface

B) Replacement For Inlet And Outlet Condenser Heads -

- 1) Removed the existing divider bars
- 2) Installed new existing divider bars
- 3) Made required welds
- 4) Installed both the inlet and outlet condenser heads upon completion of the repair and replacement work
- 5) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 140/140 Psig Test Temperature: 64/68° F
 Component Design Pressure: 150 Psig* Temperature: 120° F*

9. Remarks: 1) * The service water side of CCH-CR-1B was rerated to design pressure of 309 Psig and design temperature of 150° F in accordance with ASME Section XI Plan No 2-0180, 2) The nominal operating pressure test on the inlet condenser head - test pressure of 140 Psig and test temperature of 64° F, 3) The nominal operating pressure test on the outlet condenser head - test pressure of 140 Psig and test temperature of 68° F

CERTIFICATE OF COMPLIANCE

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

Prepared By Rudip Singh Signed By RAMOR
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/18/94 Date 7-19-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 9-3-93 to 6-22-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Paul J. Jones Commissions 9318W A N, I
 Inspector's Signature National Board, State, and Endorsements
 Date 7-19-94



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

- 1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/21/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
- 2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
- 3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
- 4. **Identification Of System:** Reactor Recirculation Cooling (RRC) 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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	WPPSS	RRC(51)-4-P1	N/A	N/A	1983	Repair	Yes, Code Class 3

7. Description Of Work Performed: Cut/ground existing socket weld to gain access to remove the blockage located inside the line. Reinstalled and made the required socket weld



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. A. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/21/94 Date 6-22-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 11-23-93 to 6-23-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Jim Hoggarth Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 6-23-94



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

1. Owner: Washington Public Power Supply System (WPPSS)

Address: 3000 George Washington Way, Richland, Washington

Date: 6/25/94

Sheet: 1 of 1

2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)

Address: Hanford Reservation, Benton County, Washington

Unit: WNP-2

3. (a) Work Performed By: Bechtel Construction, Inc, PO Box 600, Richland, WA

(b) Repair Organization P.O. No, Job No, etc.: C20069

4. Identification Of System: Containment Electrical Penetration No X-101B

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

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Containment Electrical Penetration No X-101B	PDM	Containment Vessel	790	N/A	1982	Replacement	Yes, Code Class MC

7. Description Of Work Performed: Replaced modules for Electrical Penetration No X-101B, Position No's 1, 2 and 3. The replacement work was performed as follows

- 1) Removed the existing modules from Electrical Penetration No X-101B, Position No's 1, 2 and 3
- 2) Installed new modules in Electrical Penetration No X-101B, Position No's 1, 2 and 3
- 3) Performed pressure test on the Electrical Penetration No X-101B to module "O" ring joints - Three (3) outboard joints for Position No's 1, 2 and 3 to confirm pressure boundary integrity. 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 LLRT
 Test Pressure: 38.7 Psig Test Temperature: 76.8° F
 Component Design Pressure: 45 Psig Temperature: 340° F

9. Remarks: Component design pressure of 45 Psig and design temperature of 340° F is based on the N-1 Code Data Report issued by PDM for the Containment Vessel

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Manohar
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/25/94 Date 7-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4/28/94 to 6/28/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Vigneri Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/5/94



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

- 1. Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/22/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. Identification Of System: Containment Vacuum Breaker (CVB) 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CVB-V-1ST	Anderson Greenwood	VB 7899	N/A	N/A	1983	Replacement	Yes, Code Class 2

- 7. Description Of Work Performed:** Replaced front snubber for Containment Vacuum Breaker (CVB) valve CVB-V-1ST. The replacement work was performed as follows
 1) Removed existing front snubber from the valve
 2) Installed new front snubber for the valve



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. Amoe
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/22/94 Date 6-23-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 2-23-94 to 6-23-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Hoegarth Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 6-23-94



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

1. Owner: Washington Public Power Supply System (WPPSS)

Address: 3000 George Washington Way, Richland, Washington

Date: 6/24/94

Sheet: 1 of 1

2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)

Address: Hanford Reservation, Benton County, Washington

Unit: WNP-2

3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA

(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)

4. Identification Of System: Diesel Oil (DO) 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	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-V-41B	Borg Warner	17059	N/A	N/A	1977	Repair	Yes, Code Class 2

7. Description Of Work Performed: Made body to bonnet seal weld for valve DO-V-41B. The work was performed as follows

- 1) Cut valve body to bonnet seal weld
- 2) Removed valve internals for troubleshooting
- 3) Prepped cut/ground areas on the valve body and the bonnet
- 4) Reinstalled valve internals and the bonnet
- 5) Made valve body to bonnet seal weld
- 6) Performed PT examination on the final seal weld. PT examination results acceptable



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not applicable

Certificate Of Authorization No.: Not applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By R. Anon
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/25/94 Date 7-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 2-24-94 to 6/24/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Jan Haggan Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/5/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/14/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Residual Heat Removal (RHR) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1974 Edition with Winter 1976 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-209	Borg Warner	31729	N/A	N/A	1979	Repair	Yes, Code Class 1

7. **Description Of Work Performed:** Made body to bonnet seal weld for valve RHR-V-209. The work was performed as follows
- 1) Cut valve body to bonnet seal weld
 - 2) Removed valve internals for troubleshooting
 - 3) Prepped cut/ground areas on the valve body and the bonnet
 - 4) Installed new disc in the valve
 - 5) Reinstalled valve the bonnet
 - 6) Made valve body to bonnet seal weld
 - 7) Performed PT examination on the final seal weld. PT examination results acceptable



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By [Signature] Signed By [Signature]
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
Date 7/14/94 Date 7-14-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 7/7/94 to 7/15/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be 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 9553 W NBI
Inspector's Signature National Board, State, and Endorsements
Date 7/15/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 8/2/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Reactor Water Clean Up (RWCU) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 3, 1971 Edition with no Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-FCV-33	Hammel Dahl	71 2009 005	N/A	N/A	1974	Replacement	Yes, Code Class 3

- 7. Description Of Work Performed:** Replaced disc (plug) for valve RWCU-FCV-33. The replacement work was performed as follows
- 1) Removed existing disc (plug) from the valve
 - 2) Installed new disc (plug) in the valve
 - 3) Performed pressure test to confirm pressure boundary integrity. 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 None
Test Pressure: 1090 Psig Test Temperature: 425° F
Component Design Pressure: 1440 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 R. Man
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
Date 8/2/94 Date 8-2-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 3-11-94 to 8-4-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Vaggart Commissions 9556 W NBE
Inspector's Signature National Board, State, and Endorsements
Date 8-4-94



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

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Reactor Water Clean Up (RWCU) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/15/94</p> <p>Sheet: 1 of 1</p> <p>Unit: WNP-2</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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-V-103	Borg Warner	53056	N/A	N/A	1980	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced bonnet and disc assembly for valve RWCU-V-103. The replacement work was performed as follows

A) Removal Of Bonnet And Disc Assembly From Spare Valve Serial No 54184 -

- 1) Cut/ground valve body to bonnet seal weld
- 2) Removed the bonnet and the disc assembly from the valve
- 3) Prepped the valve bonnet cut/ground surfaces
- 4) Performed PT examination on the valve bonnet prepped surfaces. PT examination results acceptable

B) Installation Of Bonnet And Disc Assembly In Valve RWCU-V-103 -

- 1) Cut/ground valve body to bonnet seal weld
- 2) Removed existing bonnet and disc assembly from the valve
- 3) Prepped the valve body cut/ground surfaces
- 4) Performed PT examination on the valve body prepped surfaces. PT examination results acceptable
- 5) Installed the bonnet and the disc assembly removed from the spare valve Serial No 54184
- 6) Made valve body to bonnet seal weld
- 7) Performed PT examination on the final seal weld. PT examination results acceptable
- 8) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 1021 Psig Test Temperature: 200.7° F
 Component Design Pressure: 3600 Psig Temperature: 100° F

9. Remarks: See attached NPV-1 Code Data Report for the spare valve Serial No 54184 from which the bonnet and disc assembly was removed and installed in valve RWCU-V-103

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Aman
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date _____

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4/20/94 to 7/13/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 9556W NBZ
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94

MATCODE

54305265

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

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

PLAN No. 2-0997

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

(a) Model No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1) 1500#	54180 Thru 54185	N/A	76630-3	1	N/A	1980
(2)						
(3)						
(4)						
(5)	USED BONNET AND DISC FOR RWCU-V-103					
(6)	FROM SPARE VALVE SIN 54184					
(7)						
(8)						
(9)						
(10)						

Curair Supp
4/21/74

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.

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

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
Disc-Code 4C79	Colmonoy #4	Rex Precision	
(b) Forgings			
Body-Code 2J40	ASME SA105	Kawaguchi Dropforging Co.	
Bonnet-Code 3W27	ASME SA105	Jorgensen	

RECEIVED
MAR 21 1980
DIGITAL QUALITY CONTROL
BY: *[Signature]*

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

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215-16291

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

2 1 2 9 9 1 5 0 9

8. Hydrostatic test: 5400 psi Disk Differential part 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 Summer '75, Code Case No. N/A, Date 1-31-80.

Signed Nuclear Valve Div., Borg Warner by Carlo M. Guichetti
(N Certificate holder)

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

CERTIFICATION OF DESIGN

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

Design specifications certified by (1) David J. Murphy
PE State Washington Reg. No. 12542

Stress analysis certified by (1) Ranga H. Winder
PE State CA Reg. No. M15939

(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 2/7 19 80, and state that to the best of my knowledge and belief, the N Certificate holder has constructed this pump, or valve, in accordance with the ASME Code, 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 2/7 19 80 Commissions 275 CA
(Natl Bd. State, Prov. and No.)



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 8/2/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Main Steam (MS) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Winter 1972 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS-V-20	Anchor Darling	2N 347	N/A	N/A	1975	Replacement	Yes, Code Class 2

7. **Description Of Work Performed:** Replaced parts for valve MS-V-20. The replacement work was performed as follows
- 1) Removed existing disc from the valve
 - 2) Installed new disc in the valve
 - 3) Removed existing bonnet from the valve
 - 4) Installed new bonnet in the valve
 - 5) Removed existing retaining ring gland from the valve
 - 6) Installed new retaining ring gland in the valve
 - 7) Reassembled the valve
 - 8) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 927 Psig Test Temperature: 520° F
 Component Design Pressure: 2160 Psig Temperature: 100° F

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

Part	Serial No
Disc	8
Bonnet	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 R. A. Meier
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 8/2/94 Date 8-2-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4/28/94 to 8/4/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Hogeart Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 8/4/94

PLAN No. 2-0998

Rudolf Lueb 6128794

FORM N-3 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. (a) Manufactured by Anchor/Darling Valve Co., 701 First St., Williamsport, PA 17701
(Name and address of NPT Certificate Holder)

(b) Manufactured for Washington Public Power Supply, P.O. Box 968, Richland, WA 99362-0968
(Name and address of N Certificate Holder for completed nuclear component)

2. Identification-Certificate Holder's Serial No. of Part S/N - 8 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No. D12090 Drawing Prepared by Anchor/Darling Valve Company

(b) Description of Part Inspected Disc, Heat No. A577 SA105

(c) Applicable ASME Code Section III, Edition 1971, Addenda date Wnt. '72, Case No. --- Class 2

3. Remarks 3"-900#-Globe
(Brief description of service for which component was designed)
A/DV Shop Order P-L152-2

Note: No Disc Hydro Performed

We certify that the statements made in this report are correct and this vessel part or appurtenance, as defined in the Code conforms to the rules of construction of the ASME Code Section III. (The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenance 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 11/4 19 92 Signed Anchor/Darling Valve Co. By R.S. Hammett
(NPT Certificate Holder)

Certificate of Authorization Expires 4/15/95 Certificate of Authorization No. N1713

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at _____

Stress analysis report on file at _____

Design specifications certified by _____ Prof. Eng. State _____ Reg. No. _____

Stress analysis report certified by _____ Prof. Eng. State _____ Reg. No. _____

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Pennsylvania and employed by Commercial Union Insurance Company of Boston, Mass. have inspected the part of a pressure vessel described in this Partial Data Report on 10-1-92 thru 11-4-92 19 92, 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 11-4 19 92

Charles Young Commissions Pennsylvania 2992

Walter Behl II 12-3-92

RECEIVED BY Walter Behl II DATE 12-3-92

National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches, drawings may be used provided (1) also in DWG or 11", (2) information on items 1-3 on this form should be attached on each sheet, and (3) each sheet is numbered and number of sheets is provided in item 5, "Remarks".

052370

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

Waldip Singh
6/23/94

1. (a) Manufactured by Anchor/Darling Valve Co., 701 First St., Williamsport, PA 17701
(Name and address of NPT Certificate Holder)

(b) Manufactured for Washington Public Power Supply System, P.O. Box 968, Richland, WA 99352
(Name and address of N Certificate Holder for completed nuclear component)

2. Identification-Certificate Holder's Serial No. of Part S/N - 1 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No. D13582 Drawing Prepared by Anchor/Darling Valve Company

(b) Description of Part Inspected 3"-900#-Globe Bonnet w/Backseat, Heat #A956A SA105

(c) Applicable ASME Code: Section III, Edition 1971, Addenda date Wnt '72, Case No. --- Class 2

3. Remarks: 3"-900#-Globe Valve
(Brief description of service for which component was designed)
A/DV S.O. P-X206-1

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

Date 1-26 19 94 Signed Anchor/Darling Valve Co. By Delia C. Roudenslager
(NPT Certificate Holder)

Certificate of Authorization Expires 4/15/95 Certificate of Authorization No. N1713

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at _____

Stress analysis report on file at _____

Design specifications certified by _____ Prof. Eng. State _____ Reg. No. _____

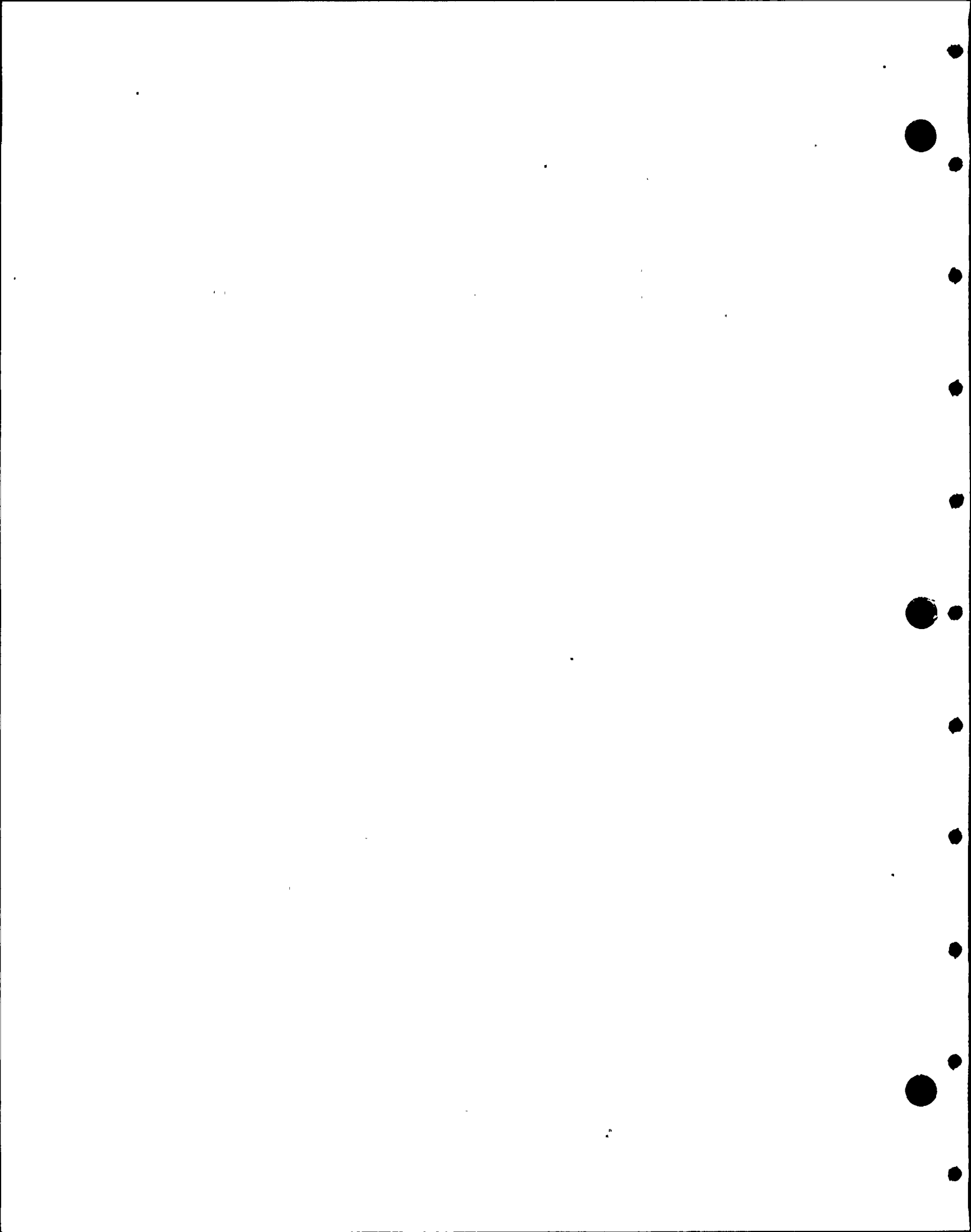
Stress analysis report certified by _____ Prof. Eng. State _____ Reg. No. _____

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of ~~XXXXXX~~ Pennsylvania and employed by Commercial Union Insurance Company of Boston, Mass. have inspected the part of a pressure vessel described in this Partial Data Report on 1-11-94 1-26-94 19 94, 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 1-26 19 94
Charles Young Commission Pennsylvania 2392
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:** Washington Public Power Supply System (WPPSS) **Date:** 6/22/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Bechtel Construction, Inc, PO Box 600, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: C20069
4. Identification Of System: Containment Exhaust Purge (CEP) 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

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

- 7. Description Of Work Performed:** Replaced valves CEP-V-1A and CEP-V-2A. The replacement work was performed as follows
- 1) Modified existing support CEP-1 to facilitate the installation of the new valves
 - 2) Modified pipe flange upstream of valve CEP-V-2A
 - 3) Installed new valves
 - 4) Installed new bolting material for pipe to valves CEP-V-1A and CEP-V-2A flanged joints
 - 5) Performed pressure test on the containment side of the flanged joint for valve CEP-V-2A to confirm pressure boundary integrity. No evidence of leakage during the pressure test
 - 6) Performed pressure test on the flanged joints between valves CEP-V-1A and CEP-V-2A to confirm pressure boundary integrity. Leakage was observed during the pressure test. The leakage 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 LLRT
 Test Pressure: 38.94 Psig Test Temperature: 81° F
 Component Design Pressure: 45 Psig Temperature: 340° F

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

EPN No	Serial No
CEP-V-1A	93-2543-01(N)-01
CEP-V-2A	93-2543-01(N)-02

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/22/94 Date 6-23-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4-15-94 to 6-24-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

DM Lofgren Commissions 956W NBE
 Inspector's Signature National Board, State, and Endorsements
 Date 6-24-94

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

Rudolf Swob

- 1. Manufactured and certified by C&S Valve Co., Nuclear Products Div.; 40 Chestnut Ave.; Westmont, IL 60559 6/21/94
(name and address of N Certificate Holder)
- 2. Manufactured for Washington Public Power Supply; P.O. Box 968; Richland, Washington 99352-0969
(name and address of Purchaser)
- 3. Location of installation WPP-2 OPS W/S Complex, W/S #1; North Power Plant Loop; Richland, WA 99352
(name and address)
- 4. Model No., Series No., or Type Purge Vent Drawing 93-2543-01(N) Rev. A CRN N/A
- 5. ASME Code, Section III, Division 1: 1989 No Addenda 2 N/A
(edition) (addenda date) (class) (Code Case no.)
- 6. Pump or valve Valve Nominal inlet size 30" Outlet size 30"
(in.) (in.)
- 7. Material: Body SA 216 Gr. WCB Bonnet N/A Disk SA 216 Gr. WCB Bolting See back side of page

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disk Serial No.
<u>93-2543-01(N)-01</u>	<u>N/A</u>	<u>Heat: 29594</u> <u>Serial: 78658-1</u>	<u>N/A</u>	<u>Heat: 212594</u> <u>Serial: 78659-2</u>
	<u>CEP-V-1A</u>			

*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.

R 4/23/94

Certificate Holder's Serial No. 93-2543-01(N)-01

8. Design conditions 218 (pressure) psi 340 (temperature) °F or valve pressure class 150 (1)
9. Cold working pressure 285 psi at 100°F
10. Hydrostatic test 450 psi. Disk differential test pressure 45 psi
11. Remarks: Cover Plate - Material: SA 516 Gr. 70 Heat Code: FME
Hex Head Cap Screw - Material: SA 193 Gr. B7 Trace Code: MF1
Gland - Material: SA 516 Gr. 70 Heat Code: SIE
Stud - Material: SA 193 Gr. B8M Heat Code: J5
Hex Nut - Material: SA 194 Gr. 8M Heat Code: E7
Pipe Plug - Material: SA 479 T 316 Heat Code: ULE

CERTIFICATION OF DESIGN

Design Specification certified by Jack R. Cole P.E. State WA Reg. no. 206563
 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. N-2723 Expires 6/20/95

Date 4/23/94 Name C&S Valve Co., Nuclear Prod. Div. 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 Illinois and employed by * Allendale Mutual Ins. Co. of Norwood, MA have inspected the pump, or valve, described in this Data Report on April 23, 1994, 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 4/23/94 Signed [Signature] Commissions NB 9762 NFB, ILL 1296
 (Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

4/23/94

Certificate Holder's Serial No. 93-2543-01(N)-02

8. Design conditions 218 (pressure) psi 340 (temperature) °F or valve pressure class 150 (1)

9. Cold working pressure 285 psi at 100°F

10. Hydrostatic test 450 psi. Disk differential test pressure 45 psi

11. Remarks: Cover Plate - Material: SA 516 Gr. 70 Heat Code: FME
Hex Head Cap Screw - Material: SA 193 Gr. B7 Trace Code: MF1
Gland - Material: SA 516 Gr. 70 Heat Code: SIE
Stud - Material: SA 193 Gr. B8M Heat Code: J5
Hex Nut - Material: SA 194 Gr. 8M Heat Code: E7
Pipe Plug - Material: SA 479 T 316 Heat Code: ULE

CERTIFICATION OF DESIGN

Design Specification certified by Jack R. Cole P.E. State WA Reg. no. 206563
 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. N-2723 Expires 6/20/95

Date 4/23/94 Name C&S Valve Co., Nuclear Prod. Div. 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 Illinois and employed by * Allendale Mutual Ins. Co. of Norwood, MA have inspected the pump, or valve, described in this Data Report on April 23, 1994, 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 4/23/94 Signed [Signature] Commissions NB 9762 N2B, TLL 1296
 (Authorized Inspector) (Nat'l. Bd. (Incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

R 4/23/94



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

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Bechtel Construction Company, PO Box 600, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: C30236</p> <p>4. Identification Of System: Containment Supply Purge (CSP) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 8/25/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

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

- 7. Description Of Work Performed:** Replaced valves CSP-V-3 and CSP-V-4. The replacement work was performed as follows
- 1) Drilled and tapped hole in the pipe flange upstream of valve CSP-V-4
 - 2) Installed new plug on the modified pipe flange upstream of valve CSP-V-4
 - 3) Drilled and tapped hole in the pipe flange upstream of valve CSP-V-5
 - 4) Installed new plug on the modified pipe flange upstream of valve CSP-V-5
 - 5) Made plug to pipe flange seal weld
 - 6) Performed PT examination on the final seal weld. PT examination results acceptable
 - 7) Installed new valves CSP-V-3 and CSP-V-4
 - 8) Installed new bolting material for pipe to valves CSP-V-3 and CSP-V-4 flanged joints
 - 9) Performed pressure test on the flanged joints for valves CSP-V-3, CSP-V-4 and CSP-V-5 to confirm pressure boundary integrity. No evidence of leakage during the pressure test except for leakage was observed on the flanged joints between valves CSP-V-3 and CSP-V-4 during the pressure test. The leakage 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 LLRT
 Test Pressure: 38.7/38.6/38.9/31.7 Psig Test Temperature: 100/80/83.4/74.6° F
 Component Design Pressure: 45 Psig Temperature: 340° F

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

EPN No	Serial No
CSP-V-3	93-2543-02(N)-01
CSP-V-4	93-2543-02(N)-02

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Amca
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 8/25/94 Date 8-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4/20/94 to 8/29/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI
 By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection

Dan Abgott Commissions 9536 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 8/29/94

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

1. Manufactured and certified by C&S Valve Co., Nuclear Products Div.; 40 Chestnut Ave.; Westmont, IL 60559
(name and address of N Certificate Holder)
2. Manufactured for Washington Public Power Supply; P.O. Box 968; Richland, Washington 99352-0969
(name and address of Purchaser)
3. Location of installation WNP-2 OPS W/S Complex, W/S #1; North Power Plant Loop; Richland, WA 99352
(name and address)
4. Model No., Series No., or Type Purge Vent Drawing 93-2543-02(N) Rev. B CRN N/A
5. ASME Code, Section III, Division 1: 1989 No Addenda 2 N/A
(edition) (addenda date) (class) (Code Case no.)
6. Pump or valve Valve Nominal inlet size 24" Outlet size 24"
(in.) (in.)
7. Material: Body SA 216 Gr. WCB Bonnet N/A Disk SA 216 Gr. WCB Bolting See back side of page

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disk Serial No.
<u>93-2543-02(N)-01</u>	<u>N/A</u>	<u>Heat: 210894 Serial: 78661-1</u>	<u>N/A</u>	<u>Heat: 211494 Serial: 78662-1</u>
	<u>CSP-V-3,3</u>	<u>N 93-2543-02(N)-01</u>		
			<u>Quarry Sup's</u>	
			<u>8/3/94</u>	

* 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.

Handwritten signature/initials

Certificate Holder's Serial No. 93-2543-02(N)-01

8. Design conditions 218 (pressure) psi 340 (temperature) °F or valve pressure class 150 (1)
9. Cold working pressure 285 psi at 100°F
10. Hydrostatic test 450 psi. Disk differential test pressure 45 psi
11. Remarks: Cover Plate - Material: SA 516 Gr. 70 Heat Code: FME
Hex Head Cap Screw - Material: SA 193 Gr. B7 Trace Code: TT2
Gland - Material: SA 516 Gr. 70 Heat Code: SIE
Stud - Material: SA 193 Gr. B8M Heat Code: J5
Hex Nut - Material: SA 194 Gr. 8M Heat Code: E7
Pipe Plug - Material: SA 479 T 316 Heat Code: ULE

CERTIFICATION OF DESIGN

Design Specification certified by Jack R. Cole P.E. State WA Reg. no. 206563
 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. N-2723 Expires 6/20/95
 Date 4/23/94 Name C&S Valve Co., Nuclear Prod. Div. 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 Illinois and employed by * Allendale Mutual Ins. Co. of Norwood, MA have inspected the pump, or valve, described in this Data Report on April 23, 1994, 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 4/23/94 Signed [Signature] Commissions NB 9762, ILL 1296
 (Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

4/23/94

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

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

1. Manufactured and certified by C&S Valve Co., Nuclear Products Div.; 40 Chestnut Ave.; Westmont, IL 60559
(name and address of N Certificate Holder)
2. Manufactured for Washington Public Power Supply; P.O. Box 968; Richland, Washington 99352-0969
(name and address of Purchaser)
3. Location of installation WNP-2 OPS W/S Complex, W/S #1; North Power Plant Loop; Richland, WA 99352
(name and address)
4. Model No., Series No., or Type Purge Vent Drawing 93-2543-02(N) Rev. B CRN N/A
5. ASME Code, Section III, Division 1: 1989 No Addenda 2 N/A
(edition) (addenda date) (class) (Code Case no.)
6. Pump or valve Valve Nominal inlet size 24" Outlet size 24"
(in.) (in.)
7. Material: Body SA 216 Gr. WCB Bonnet N/A Disk SA 216 Gr. WCB Bolting See back side of page

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disk Serial No.
<u>93-2543-02(N)-02</u>	<u>N/A</u>	<u>Heat: 213494 Serial: 78661-2</u>	<u>N/A</u>	<u>Heat: 212594 Serial: 78662-2</u>

CSP-V-4, S/N 93-2543-02(N)-02

Quaid Swetz

2/3/94

* 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.

4/23/94

Certificate Holder's Serial No. 93-2543-02(N)-02

8. Design conditions 218 (pressure) psi 340 (temperature) °F or valve pressure class 150 (1)
9. Cold working pressure 285 psi at 100°F
10. Hydrostatic test 450 psi. Disk differential test pressure 45 psi
11. Remarks: Cover Plate - Material: SA 516 Gr. 70 Heat Code: FME
Hex Head Cap Screw - Material: SA 193 Gr. 87 Trace Code: TT2
Gland - Material: SA 516 Gr. 70 Heat Code: SIE
Stud - Material: SA 193 Gr. 88M Heat Code: J5
Hex Nut - Material: SA 194 Gr. 8M Heat Code: E7
Pipe Plug - Material: SA 479 T 316 Heat Code: ULE

CERTIFICATION OF DESIGN

Design Specification certified by Jack R. Cole P.E. State WA Reg. no. 206563
 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. N-2723 Expires 6/20/95

Date 4/23/94 Name C&S Valve Co., Nuclear Prod. Div. 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 or Province of Illinois and employed by * Allendale Mutual Ins. Co. of Norwood, MA have inspected the pump, or valve, described in this Data Report on April 23, 1994, 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 4/23/94 Signed [Signature] Commissions NB 9762 N2B, ILL 1296
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

4/23/94



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 3/10/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Crosby Valve And Gage Co, 43 Kendrick Street, Wrentham, Massachusetts, 02093
(b) Repair Organization P.O. No, Job No, etc.: PO No C30786
4. **Identification Of System:** Main Steam Relief Valve (MSRV)
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Summer 1972 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-RV-SPARE	Crosby	N56000-01-0037 Modified To N63790-00-0134	N/A	N/A	1973	Replacement (Modification))	Yes, Code Class 1

7. Description Of Work Performed: WNP-2 Main Steam Relief Valves (MSRVs) were manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at WNP-2 plant. "Bailly" Main Steam Relief Valve (MSRV) were also manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at Northern Indiana Public Service Co (NIPSCO), Bailly Generating Station Nuclear 1 Plant. Supply System procured six (6) new (unused) "Bailly" valves from NIPSCO as spares for use at WNP-2 plant. "Bailly" valves were sent to Crosby for modification (upgrade) to make them equivalent in form, fit and function and interchangeable with WNP-2 valves which were also modified (upgraded) by Crosby. The "Bailly" modified (upgraded) valves will be used as spare valves for future use for WNP-2 plant. "Bailly" Main Steam Relief Valve (MSRV), Serial No N56000-01-0037 was modified (upgraded) to Serial No N63790-00-0134 by Crosby in accordance with PO No C30786. The details of the modification (upgrade) work is documented in the documentation package furnished by Crosby



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

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

9. Remarks: 1) See attached NV-1 (Pre - Modification) Code Data Report for MSRV, Serial No N56000-01-0037
 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting the modification (upgrade) work performed by Crosby

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement (modification) conforms to the rules of the 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 R. Thomas
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 3/10/94 Date 3-11-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 12-9-93 to 3-16-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Hoggarth Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 3/16/94

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MA

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

PLAN No. 1003

Repair Supp's
3/10/94

REPAIR AND REPLACEMENT
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address)
(Repair organization's P.O. No., Job No., etc.) NV4000020

2. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0968
(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND, WA

5. a. Identifying Nos. N63790-00-0134 - - - - - 1973
(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)
b. Identification of component repaired or replacement component -
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic (X) Pneumatic () Design Pressure () Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 19 71 Edition
Addenda NO Code Case -

9. Description of work N56000-01-0037 WAS MODIFIED TO N63790-00-0134
(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)
ASME SEC. XI, 1980 EDITION WINTER 1980 ADDENDA.

10. Remarks: THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:

PART	PART NO.	MODIFIED TO PART NO.
BODY	N90118	N93183-43-0126
BONNET	N89717	N93407-41-0052
SPINDLE ASSY	K55465	K62873-46-0060
SPR. WASHER	N89724	K62856-41-0200
SPR. WASHER	N89723	K62857-41-0200
SPRING ASSY	K55466	K62858-31-0006
PART	PART NO.	REPLACED WITH
NOZZLE	N89713	N93184-51-0156
DISC INSERT	N89715	N93185-52-0202
SPRING	NX2689	NX2689-0134
THR. BRG. ADAPT.	N89725	N93409-34-0008
ADJ. BOLT	N89726	N93410-36-0132
ADJ. BOLT BUTT. COMMERCIAL		N93411-33-0008
ADJ. BOLT ASSY COMMERCIAL		K63618-31-0001
INLET STUD	N89727	N93216/NAD QTY 10

4-
2/22/94

CERTIFICATE OF COMPLIANCE

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

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

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 24, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Factory Mutual Systems

Date 2/24 1994
Signed Will P. G. [Signature] Commissions 1141455
(Inspector) (Nat'l. Bd., State, Prov. and No.)



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

PLAN No. 2-1003

Calcutt Supp 3/90/94

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

Q.C.-44A

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
Name and Address

Model No. HB-65-BP-FN Order No. N-105286 Contract Date 6/28/71
General Electric Company

2. Manufactured For San Jose, California Order No. 205-AD148
Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I,
Name and Address Baileytown, Indiana

4. Location of Plant Baileytown, Indiana

5. Valve Identification MPL #B-22-F013 Serial No. N56000-01-0037 Drawing No. N-56000 Rev. C
Type Safety Relief Orifice Size R Pipe Size - Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch

6. Set Pressure (PSIG) 1175 575° F
Rated Temperature

Stamped Capacity 883950 Lbs. Hr. @ 3 % Overpressure - Blowdown (PSIG) 5%
Sat. Steam

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class 1 Edition 1971 Addenda Date Summer 1972
KXXIX

Pressure Containing or Pressure Retaining Components

	Serial No. Identification	Material Specification Including Type or Grade
a. XXXXXX Forgings		
Body	<u>N90118-32-0008</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Bonnet XXXXXX	<u>N89717-32-0021</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
b. Bar Stock and Forgings		
XXXXXX Disc Insert	<u>N89715-31-0028</u>	<u>ASTM A-461-65 Type 630</u>
Nozzle	<u>N89713-32-0039</u>	<u>ASTM A-182-71 F316</u> <u>ASME SA-182 F316</u>
Disc Holder	<u>N89714-32-0037</u>	<u>AMS 5662 B</u>
Spring Washers	<u>N89724-32-0037</u> <u>N89723-32-0008</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Adjusting XXXX Bolt	<u>N89726-33-0046</u>	<u>ASTM A-193-71 Gr. B6</u> <u>ASME SA-193 Gr. B6</u>
Spindle Point	<u>N89720-32-0046</u>	<u>ASTM A-564-72 Type 630</u>



3-3-75



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

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 1. Owner: Washington Public Power Supply System (WPPSS)
<i>Address:</i> 3000 George Washington Way, Richland, Washington | Date: 3/10/84
Sheet: 1 of 1 |
| 2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
<i>Address:</i> Hanford Reservation, Benton County, Washington | Unit: WNP-2 |
| 3. (a) Work Performed By: Crosby Valve And Gage Co, 43 Kendrick Street, Wrentham, Massachusetts, 02093
(b) Repair Organization P.O. No, Job No, etc.: PO No C30786 | |
| 4. Identification Of System: Main Steam Relief Valve (MSRV) | |
| 5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with Summer 1972 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 | |
| 6. Identification Of Components Repaired Or Replaced And Replacement Components | |

Name Of Component	Name Of Manufacturer	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-RV-SPARE	Crosby	N56000-01-0099 Modified To N63790-00-0135	N/A	N/A	1973	Replacement (Modification)	Yes, Code Class 1

7. Description Of Work Performed: WNP-2 Main Steam Relief Valves (MSRVs) were manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at WNP-2 plant. "Bailly" Main Steam Relief Valve (MSRV) were also manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at Northern Indiana Public Service Co (NIPSCO), Bailly Generating Station Nuclear 1 Plant. Supply System procured six (6) new (unused) "Bailly" valves from NIPSCO as spares for use at WNP-2 plant. "Bailly" valves were sent to Crosby for modification (upgrade) to make them equivalent in form, fit and function and interchangeable with WNP-2 valves which were also modified (upgraded) by Crosby. The "Bailly" modified (upgraded) valves will be used as spare valves for future use for WNP-2 plant. "Bailly" Main Steam Relief Valve (MSRV), Serial No N56000-01-0099 was modified (upgraded) to Serial No N63790-00-0135 by Crosby in accordance with PO No C30786. The details of the modification (upgrade) work is documented in the documentation package furnished by Crosby



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

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

9. Remarks: 1) See attached NV-1 (Pre - Modification) Code Data Report for MSRV, Serial No N56000-01-0099
 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting the modification (upgrade) work performed by Crosby

CERTIFICATE OF COMPLIANCE

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

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

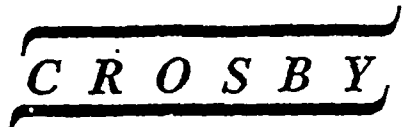
Prepared By Kuldip Singh Signed By R. A. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 3/10/94 Date 3-11-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 12-9-93 to 3-16-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hoggarth Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 3/16/94



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MA

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

PLAN No. 2-1004

Buddip Singh's
3/10/94

REPAIR AND REPLACEMENT
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address)
(Repair organization's P.O. No., Job No., etc.) NV4000020

2. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0968
(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND, WA

5. a. Identifying Nos. N63790-00-0135 -- -- -- -- 1973
(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)
b. Identification of component repaired or replacement component --
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic (X) Pneumatic () Design Pressure () Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 19 71 Edition
Addenda NO Code Case --

9. Description of work N56000-01-0099 WAS MODIFIED TO N63790-00-0135
(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)
ASME SEC.XI, 1980 EDITION WINTER 1980 ADDENDA.

10. Remarks: THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:

PART	PART NO.	MODIFIED TO PART NO.
BODY	N90118	N93183-46-0129
BONNET	N89717	N93407-42-0053
SPINDLE ASSY	K55465	K62873-45-0059
SPR. WASHER	N89724	K62856-42-0201
SPR. WASHER	N89723	K62857-42-0201
SPRING ASSY	K55466	K62858-31-0003
PART	PART NO.	REPLACED WITH
NOZZLE	N89713	N93184-51-0155
DISC INSERT	N89715	N93185-52-0199
SPRING	NX2689	N89722-0072
THR. BRG. ADAPT	N89725	N93409-32-0006
ADJ. BOLT	N89726	N93410-32-0005
ADJ. BOLT BUTT. COMMERCIAL		N93411-33-0012
ADJ. BOLT ASSY COMMERCIAL		K63618-31-0005

17-21-94/sc

CERTIFICATE OF COMPLIANCE

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

Signed Laurence J. Pines QA Eng. Manager 24 Feb, 1994
(Authorized Rep. of Repair Organization) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Date 2/25, 1994 Factory Mutual Systems
Signed M. H. C. G. L. Commissions 164155
(Inspector) (Nat'l. Bd., State, Prov. and No.)

PLAN NO. 2-1004
Rudolph Gage

3/10/74



CROSBY VALVE & GAGE COMPANY
 WRENTHAM, MASS

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

Q.C.-44C

DATA REPORT
 Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
 HB-65-BP- Name and Address

Model No. FN Order No. N-51726 Contract Date 1/27/75 National Board No. _____
 General Electric Co., 175 Curtner Ave.,

2. Manufactured For San Jose, California 95125 Order No. 205-AD148
 Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I
 Name and Address

4. Location of Plant Baileytown, Indiana
Spare

5. Valve Identification MPL/B22-F013 Serial No. N56000-01-0099 Drawing No. H-56000 Rev. C

Type Safety Relief Orifice Size R Pipe Size _____ Inlet 6 Outlet 10
 Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch

6. Set Pressure (PSIG) 1130 _____ 575° F
 Rated Temperature

Stamped Capacity 850500#/Hr. Sat. 3 Overpressure _____ Blowdown (PSIG) 5%

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class 1 Edition 1971, Addenda Date Summer 1972, Case No. _____

Pressure Containing or Pressure Retaining Components

	Serial No. Identification	Material Specification including Type or Grade
a. Casting Forging		
Body	<u>N90118-35-0032</u>	<u>ASTM A105-71</u> <u>ASME SA105</u>
Bonnet	<u>N89717-36-0083</u>	<u>ASTM A105-71</u> <u>ASME SA105</u>
b. Bar Stock and Forgings		
Substituted Disc Insert	<u>N89715-36-0106</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
Nozzle	<u>N89713-36-0106</u>	<u>ASTM A182-71 Type 316</u> <u>ASME SA182 Type 316</u>
Disc Holder K55484-39-0135	<u>N89714-35-0173</u>	<u>AMS 5662B</u>
Spring Washers K55466-36-0093	<u>N89724-36-0122</u> <u>N89723-38-0131</u>	<u>ASTM A105-71</u> <u>ASME SA105</u>
Adjusting Bolt	<u>N89726-40-0119</u>	<u>ASTM A193-71 Gr. B6</u> <u>ASME SA193 Gr. B6</u>
Spindle K55465-35-0106	<u>N89720-38-0129</u>	<u>ASTM A564 Type 630</u> <u>ASME SA564 Type 630</u>
Spindle Ball	<u>N89721-0206</u>	<u>Stoddy No. 6</u>
Thrust Bearing Adapter	<u>N89725-34-0116</u>	<u>ASTM A193-71 Gr. B6</u> <u>ASME SA193 Gr. B6</u>

	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring	<u>N89722-0072</u>	<u>ASTM A304-66</u>
d. Bolting	_____	_____
e. Other Parts such as Pilot Components	_____	_____
Inlet Stud	<u>N89727-1203 thru 1214</u>	<u>ASME SA193 Gr. B7</u>
Inlet Nut	<u>N89728-1197 thru 1208</u>	<u>ASME SA194 Gr. 2H</u>
Bonnet Stud	<u>N89718-1222 thru 1233</u>	<u>ASME SA193 Gr. B7</u>
Bonnet Nut	<u>N89719-1216 thru 1227</u>	<u>ASME SA194 Gr. 2H</u>
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

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

Date 6-22 1976 Signed Crosby Valve & Gage Co. By [Signature]
Manufacturer QA Manager

Certificate of Authorization No. 926 expires October 28, 1977

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 Factory Mutual Systems*, Norwood, Mass. have inspected the equipment described in this Data Report on _____ 19____ and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

Date 6/22/76 19____
[Signature] Inspector Commission MA 1209
National Board, State, Province and No.

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



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

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 1. Owner: Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington | Date: 3/11/94
Sheet: 1 of 1 |
| 2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington | Unit: WNP-2 |
| 3. (a) Work Performed By: Crosby Valve And Gage Co, 43 Kendrick Street, Wrentham, Massachusetts, 02093
(b) Repair Organization P.O. No, Job No, etc.: PO No C30786 | |
| 4. Identification Of System: Main Steam Relief Valve (MSRV) | |
| 5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with Summer 1972 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 | |
| 6. Identification Of Components Repaired Or Replaced And Replacement Components | |

Name Of Component	Name Of Manufacturer	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-RV-SPARE	Crosby	N56000-02-0043 Modified To N63790-00-0136	N/A	N/A	1973	Replacement (Modification)	Yes, Code Class 1

7. Description Of Work Performed: WNP-2 Main Steam Relief Valves (MSRVs) were manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at WNP-2 plant. "Bailly" Main Steam Relief Valve (MSRV) were also manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at Northern Indiana Public Service Co (NIPSCO), Bailly Generating Station Nuclear 1 Plant. Supply System procured six (6) new (unused) "Bailly" valves from NIPSCO as spares for use at WNP-2 plant. "Bailly" valves were sent to Crosby for modification (upgrade) to make them equivalent in form, fit and function and interchangeable with WNP-2 valves which were also modified (upgraded) by Crosby. The "Bailly" modified (upgraded) valves will be used as spare valves for future use for WNP-2 plant. "Bailly" Main Steam Relief Valve (MSRV), Serial No N56000-02-0043 was modified (upgraded) to Serial No N63790-00-0136 by Crosby in accordance with PO No C30786. The details of the modification (upgrade) work is documented in the documentation package furnished by Crosby



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

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

9. Remarks: 1) See attached NV-1 (Pre - Modification) Code Data Report for MSRV, Serial No N56000-02-0043
 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting the modification (upgrade) work performed by Crosby

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement (modification) conforms to the rules of the 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 RAM
 Kuldip Singh- Materials And Inspection Manager, Materials And Inspection
 Date 3/11/94 Date 3-11-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 12-7-93 to 3-16-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Vloggett Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 3/16/94

CROSBY

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

PLAN No. 2-1005

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

Quadrup Supp

3/10/94

**REPAIR AND REPLACEMENT
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS**

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address)
(Repair organization's P.O. No., Job No., etc.) NV4000020

2. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0968
(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND, WA

5. a. Identifying Nos. N63790-00-0136 -- -- 1973
(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)
b. Identification of component repaired or replacement component --
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic () Pneumatic () Design Pressure () Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 1971 Edition
Addenda NO Code Case --

9. Description of work N56000-02-0043 WAS MODIFIED TO N63790-00-0136
(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)
ASME SEC. XI, 1980 EDITION WINTER 1980 ADDENDA.

10. Remarks: THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:

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

2/23/74

CERTIFICATE OF COMPLIANCE

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

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

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Date 2/25, 1994 Factory Mutual Systems
Signed Paul P. Gelli Commissions M. 1155
(Inspector) (Nat'l. Bd., State, Prov. and No.)



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

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

Q.C.-44A

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
Name and Address

Model No. HB-65-BP-FN Order No. N-105286 Contract Date 6/28/71
General Electric Company

2. Manufactured For San Jose, California Order No. 205-AD148
Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I,
Name and Address Baileytown, Indiana

4. Location of Plant Baileytown, Indiana

5. Valve Identification MPL #B-22-F013 Serial No. N56000-02-0043 Drawing No. H-56000 Rev. C

Type Safety Relief Orifice Size R Pipe Size -- Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch

6. Set Pressure (PSIG) 1205 575°
Rated Temperature F

Stamped Capacity 906250 Lbs. Hr. 3 % Overpressure -- Blowdown 5%
Sat. Steam

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class 1 Edition 1971 Addenda Date Summer 1972
~~XXXX~~

Pressure Containing or Pressure Retaining Components

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



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

OTHER PARTS

Spindle Ball	<u>N89721-0035</u>	<u>Stellite 6</u>
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BARS & FORGINGS

Thrust Bearing Adapter	<u>N89725-32-0032</u>	<u>ASTM A-193-71 Gr. B6 ASME SA-193 Gr. B6</u>
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We certify that the statements made in this report are correct.

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

Certificate of Authorization No. 331 expires November 9, 1974

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Mass. and employed by Mutual Boiler & Machinery Insurance Co., Waltham, Mass. have inspected the equipment described in this Data Report on October 31 1973 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

*Factory Mutual Group of Insurance Co.

Date October 31 1973

[Signature] Commissions N.B. 6065 14035 1090
 (Inspector) National Board, State, Province and No. 1



3-3-75



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 4/25/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Crosby Valve And Gage Co, 43 Kendrick Street, Wrentham, Massachusetts, 02093
(b) **Repair Organization P.O. No, Job No, etc.:** PO No C30786
4. **Identification Of System:** Main Steam Relief Valve (MSRV)
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Summer 1972 Addenda, Code Case: None
(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-RV-SPARE	Crosby	N56000-02-0042 Modified To N63790-00-0137	N/A	N/A	1973	Replacement (Modification))	Yes, Code Class 1

7. Description Of Work Performed: WNP-2 Main Steam Relief Valves (MSRVs) were manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at WNP-2 plant. "Bailly" Main Steam Relief Valve (MSRV) were also manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at Northern Indiana Public Service Co (NIPSCO), Bailly Generating Station Nuclear 1 Plant. Supply System procured six (6) new (unused) "Bailly" valves from NIPSCO as spares for use at WNP-2 plant. "Bailly" valves were sent to Crosby for modification (upgrade) to make them equivalent in form, fit and function and interchangeable with WNP-2 valves which were also modified (upgraded) by Crosby. The "Bailly" modified (upgraded) valves will be used as spare valves for future use for WNP-2 plant. "Bailly" Main Steam Relief Valve (MSRV), Serial No N56000-02-0042 was modified (upgraded) to Serial No N63790-00-0137 by Crosby in accordance with PO No C30786. The details of the modification (upgrade) work is documented in the documentation package furnished by Crosby



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

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

9. Remarks: 1) See attached NV-1 (Pre - Modification) Code Data Report for MSRV, Serial No N56000-02-0042
 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting the modification (upgrade) work performed by Crosby

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement (modification) conforms to the rules of the 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 R. Amca
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 4/25/94 Date 4-25-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 2-25-94 to 4-26-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 9556W NBE
 Inspector's Signature National Board, State, and Endorsements
 Date 4/26/94

CROSBY

CROSBY VALVE & GAGE COMPANY

WRENTHAM, MA

PLAN NO. 2-1006

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

*Repair Supp
4/25/74*

**REPAIR AND REPLACEMENT
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS**

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address)
(Repair organization's P.O. No., Job No., etc.) NV4000020

2. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0968
(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND, WA

5. a. Identifying Nos. N63790-00-0137 - - - - - 1973
(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)
b. Identification of component repaired or replacement component -
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic () Pneumatic () Design Pressure () Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 19 71 Edition
Addenda NO Code Case -

9. Description of work N56000-02-0042 WAS MODIFIED TO N63790-00-0137
(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)
ASME SEC. XI, 1980 EDITION WINTER 1980 ADDENDA.

10. Remarks: THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:

PART	PART NO.	MODIFIED TO PART NO.
BODY	N90118	N93183-41-0124
BONNET	N89717	N93407-44-0055
SPINDLE ASSY	K55465	K62873-44-0058
SPR. WASHER	N89724	K62856-44-0203
SPR. WASHER	N89723	K62857-44-0203
SPRING ASSY	K55466	K62858-31-0001
PART	PART NO.	REPLACED WITH
NOZZLE	N89713	N93184-51-0157
DISC INSERT	N89715	N93185-54-0231
THRUST BRG. ADAPT	N89725	N93409-33-0007
ADJ. BOLT	N89726	N93410-32-0006
ADJ. BOLT BUTT. COMMERCIAL		N93411-34-0013
ADJ. BOLT ASSY COMMERCIAL		K63618-32-0006

L. 4/25/74

CERTIFICATE OF COMPLIANCE

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

(repair/replacement)

Signed Lawrence J. Rice, QA Eng. Manager 25 Feb 1994
(Authorized Rep. of Repair Organization) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Factory Mutual Systems

Date 2/25 1994
Signed Vincent J. G. [Signature] Commissions 144155
(Inspector) (Nat'l. Bd., State, Prov. and No.)



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

Building Supply
4/24/74

FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES
As required by the Provisions of the ASME Code Rules
Q.C.-44A

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
Name and Address

Model No. HB-65-BP-FN Order No. N-105286 Order Date 5/29/71
General Electric Company

2. Manufactured For San Jose, California Order No. 205-AD148
Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I,
Name and Address Baileytown, Indiana

4. Location of Plant Baileytown, Indiana

5. Valve Identification MPL #B-22-F013 Serial No. N56000-02-0042 Drawing No. H-56000 Rev. C

Type Safety Relief Orifice Size R Pipe Size - Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch

6. Set Pressure (PSIG) 1195 575° F
Rated Temperature

Stamped Capacity 898800 Lbs. Hr. 3 % Overpressure -- Blowdown ~~XXXX~~ 5%
Sat. Steam

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class 1 Edition 1971 Addenda Date Summer 1972
~~XXXX~~

Pressure Containing or Pressure Retaining Components

	Serial No. Identification	Material Specification Including Type or Grade
a. XXXXXX Forgings		
Body	<u>N89711-32-0024</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Bonnet XXXXXX	<u>N89717-32-0018</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
b. Bar Stock and Forgings		
XXXXXX Disc Insert	<u>N89715-31-0034</u>	<u>ASTM A-461-65 Type 630</u>
Nozzle	<u>N89713-32-0031</u>	<u>ASTM A-182-71 F316</u> <u>ASME SA-182 F316</u>
Disc Holder	<u>N89714-32-0042</u>	<u>AMS 552 R</u>
Spring Washers	Top <u>N89724-32-0042</u> Bottom <u>N89723-32-0003</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Adjusting XXXX Bolt	<u>N89726-32-0012</u>	<u>ASTM A-193-71 Gr. B6</u> <u>ASME SA-193 Gr. B6</u>
Spindle Point	<u>N89720-32-0034</u>	<u>ASTM A-564-72 Type 630</u>



	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring	<u>NX2689-0047</u>	<u>ASTM A-304-66 Gr. 4161H</u>
d. Bolting	_____	_____
e. Other parts from the Data Report		
Inlet Stud	<u>N89727-0493 thru 0504</u>	<u>ASTM A-193-71 Gr. B7 ASME SA-193 Gr. B7</u>
Inlet Stud Nut	<u>N89728-0497 thru 0508</u>	<u>ASTM A-194-71 Cl. 2H ASME SA-194 Cl. 2H</u>
Bonnet Stud	<u>N89718-0497 thru 0508</u>	<u>ASTM A-193-71 Gr. B7 ASME SA-139 Gr. B7</u>
Bonnet Stud Nut	<u>N89719-0499 thru 0510</u>	<u>ASTM A-194-71 Cl. 2H ASME SA-194 Cl. 2H</u>

OTHER PARTS

Spindle Ball	<u>N89721-0034</u>	<u>Stellite 6</u>
BARS & FORGINGS	<u>N89725-31-0009</u>	<u>ASTM A-193-71 Gr. B6 ASME SA-193 Gr. B6</u>

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

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

Certificate of Authorization No. 331 expires November 9, 1974

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Mass. and employed by Mutual Boiler & Machinery Insurance Co., Waltham, Mass. have inspected the equipment described in this Data Report on October 31, 1973 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

Date October 31 19 73

Arnold S. Chinnici Commissions W.R. 6665 Mass. 107C
 (Inspector) National Board, State, Province and No.





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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 3/10/84
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Crosby Valve And Gage Co, 43 Kendrick Street, Wrentham, Massachusetts, 02093
(b) Repair Organization P.O. No, Job No, etc.: PO No C30786
4. **Identification Of System:** Main Steam Relief Valve (MSRV)
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Summer 1972 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-RV-SPARE	Crosby	N56000-01-0038 Modified To N63790-00-0138	N/A	N/A	1973	Replacement (Modification))	Yes, Code Class 1

7. Description Of Work Performed: WNP-2 Main Steam Relief Valves (MSRVs) were manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at WNP-2 plant. "Bailly" Main Steam Relief Valve (MSRV) were also manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at Northern Indiana Public Service Co (NIPSCO), Bailly Generating Station Nuclear 1 Plant. Supply System procured six (6) new (unused) "Bailly" valves from NIPSCO as spares for use at WNP-2 plant. "Bailly" valves were sent to Crosby for modification (upgrade) to make them equivalent in form, fit and function and interchangeable with WNP-2 valves which were also modified (upgraded) by Crosby. The "Bailly" modified (upgraded) valves will be used as spare valves for future use for WNP-2 plant. "Bailly" Main Steam Relief Valve (MSRV), Serial No N56000-01-0038 was modified (upgraded) to Serial No N63790-00-0138 by Crosby in accordance with PO No C30786. The details of the modification (upgrade) work is documented in the documentation package furnished by Crosby



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

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

9. Remarks: 1) See attached NV-1 (Pre - Modification) Code Data Report for MSRV, Serial No N56000-01-0038
 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting the modification (upgrade) work performed by Crosby

CERTIFICATE OF COMPLIANCE

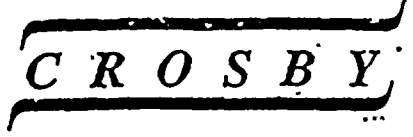
We certify that the statements made in this Owner's Report are correct and this replacement (modification) conforms to the rules of the ASME Code, Section XI
 Type Code Symbol Stamp: Not applicable
 Certificate Of Authorization No.: Not applicable
 Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By RAMoen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 3/10/94 Date 3-11-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 12-9-93 to 3-16-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI
 By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection

Jim Hoggarth Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 3/16/94



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MA

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

PLAN No. 2-1007

Audip Lueb
3/10/94

REPAIR AND REPLACEMENT
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address)
(Repair organization's P.O. No., Job No., etc.), NV400020

2. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0968
(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND, WA

5. a. Identifying Nos. N63790-00-0138 -- -- 1973
(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)
b. Identification of component repaired or replacement component --
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic (X) Pneumatic () Design Pressure () Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 1971 Edition
Addenda NO Code Case --

9. Description of work N56000-01-0038 WAS MODIFIED TO N63790-00-0138
(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)
ASME SEC.XI.1980 EDITION WINTER 1980 ADDENDA.

10. Remarks: THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:

PART	PART NO.	MODIFIED TO PART NO.
BODY	N90118	N93183-44-0127
BONNET	N89717	N93407-45-0056
SPINDLE ASSY	K55465	K62873-43-0057
SPR.WASHER	N89724	K62856-45-0204
SPR.WASHER	N89723	K62857-45-0204
SPRING ASSY	K55466	K62858-31-0002
PART	PART NO.	REPLACED WITH
NOZZLE	N89713	N93184-51-0154
DISC INSERT	N89715	N93185-52-0201
THR.BRG.ADAPT.	N89725	N93409-34-0011
ADJ.BOLT	N89726	N93410-31-0004
ADJ.BOLT BUTT. COMMERCIAL		N93411-33-0011
ADJ.BOLT ASSY COMMERCIAL		K63618-31-0004

2/23/94

CERTIFICATE OF COMPLIANCE

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

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

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Factory Mutual Systems

Date 2/25, 1994
Signed Will P Gills Commissions M-1455
(Inspector) (Nat'l. Bd., State, Prov. and No.)



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

Quincy Suply
3/10/94

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

G.C.-44A

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
Name and Address

Model No. HB-65-BP-FN Order No. N-105286 Contract Date 6/28/71
General Electric Company

2. Manufactured For San Jose, California Order No. 205-AD148
Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I,
Name and Address Baileytown, Indiana

4. Location of Plant Baileytown, Indiana,

5. Valve Identification MPL #B-22-F013 Serial No. N56000-01-0038 Drawing No. H-56000 Rev. C

Type Safety Relief Orifice Size R Pipe Size - Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch

6. Set Pressure (PSIG) 1175 575° F
Rated Temperature

Stamped Capacity 883950 Lbs. Hr. 3 % Overpressure - Blowdown 5%
Sat. Steam

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class 1 Edition 1971 Addenda Date Summer 1972
I or II

Pressure Containing or Pressure Retaining Components

	Serial No. Identification	Material Specification Including Type or Grade
a. CROSBY Forgings		
Body	<u>N90118-32-0009</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Bonnet CROSBY	<u>N89717-32-0022</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
b. Bar Stock and Forgings		
CROSBY Disc Insert	<u>N89715-32-0018</u>	<u>ASTM A-461-65 Type 630</u>
Nozzle	<u>N89713-32-0028</u>	<u>ASTM A-182-71 F316</u> <u>ASME SA-182 F316</u>
Disc Holder	<u>N89714-32-0038</u>	<u>AMS 5662 B</u>
Spring Washers	<u>N89724-32-0038</u> <u>N89723-32-0023</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Adjusting CROSBY Bolt	<u>N89726-32-0015</u>	<u>ASTM A-193-71 Gr. B6</u> <u>ASME SA-193 Gr. B6</u>
Spindle Point	<u>N89720-32-0044</u>	<u>ASTM A-564-72 Type 630</u>



3-3-75



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 3/10/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Crosby Valve And Gage Co, 43 Kendrick Street, Wrentham, Massachusetts, 02093
(b) **Repair Organization P.O. No, Job No, etc.:** PO No C30786
4. **Identification Of System:** Main Steam Relief Valve (MSRV)
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Summer 1972 Addenda, Code Case: None
(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-RV-SPARE	Crosby	N56000-01-0100 Modified To N63790-00-0139	N/A	N/A	1973	Replacement (Modification))	Yes, Code Class 1

7. Description Of Work Performed: WNP-2 Main Steam Relief Valves (MSRVs) were manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at WNP-2 plant. "Bailly" Main Steam Relief Valve (MSRV) were also manufactured by Crosby Valve And Gage Co (Crosby) for General Electric (GE) for use at Northern Indiana Public Service Co (NIPSCO), Bailly Generating Station Nuclear 1 Plant. Supply System procured six (6) new (unused) "Bailly" valves from NIPSCO as spares for use at WNP-2 plant. "Bailly" valves were sent to Crosby for modification (upgrade) to make them equivalent in form, fit and function and interchangeable with WNP-2 valves which were also modified (upgraded) by Crosby. The "Bailly" modified (upgraded) valves will be used as spare valves for future use for WNP-2 plant. "Bailly" Main Steam Relief Valve (MSRV), Serial No N56000-01-0100 was modified (upgraded) to Serial No N63790-00-0139 by Crosby in accordance with PO No C30786. The details of the modification (upgrade) work is documented in the documentation package furnished by Crosby



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

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

9. Remarks: 1) See attached NV-1 (Pre - Modification) Code Data Report for MSRV, Serial No N56000-01-0100
 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting the modification (upgrade) work performed by Crosby

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement (modification) conforms to the rules of the 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 RTM
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 3/10/94 Date 3-11-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 12-9-93 to 3-16-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hoggan Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 3/16/94

CROSBY

CROSBY VALVE & GAGE COMPANY

WRENTHAM, MA

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

PLAN No. 2-1008

*Julius E. Surr
3/10/94*

**REPAIR AND REPLACEMENT
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS**

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address)
(Repair organization's P.O. No., Job No., etc.) NV400020

2. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0968
(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND, WA

5. a. Identifying Nos. N63790-00-0139 -- -- -- -- 1973
(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)
b. Identification of component repaired or replacement component --
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic (X) Pneumatic () Design Pressure () Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 19 71 Edition
Addenda NO Code Case --

9. Description of work N56000-01-0100 WAS MODIFIED TO N63790-00-0139
(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)
ASME SEC.XI.1980 EDITION WINTER 1980 ADDENDA.

10. Remarks: **THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:**

PART	PART NO.	MODIFIED TO PART NO.
BODY	N90118	N93183-45-0128
BONNET	N89717	N93407-46-0057
SPINDLE ASSY	K55465	K62873-42-0056
SPR.WASHER	N89724	K62856-46-0205
SPR.WASHER	N89723	K62857-46-0205
SPRING ASSY	K55466	K62858-31-0004
PART	PART NO:	REPLACED WITH
NOZZLE	N89713	N93184-51-0158
DISC INSERT	N89715	N93185-52-0200
THR.BRG.ADAPT.	N89725	N93409-34-0010
ADJ.BOLT	N89726	N93410-36-0139
ADJ.BOLT BUTT. COMMERCIAL		N93411-33-0009
ADJ.BOLT ASSY COMMERCIAL		K63618-31-0002

E 2/23/74

CERTIFICATE OF COMPLIANCE

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

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

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Date 2/25, 1994 Factory Mutual Systems
Signed W. J. P. Gillen Commissions MA 1455
(Inspector) (Nat'l. Bd., State, Prov. and No.)

PLAN NO. 2-1008
Crosby Valve & Gage Co.

3110194



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

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

Q.C.-44C

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
HB-65-BP- Name and Address

Model No. FN Order No. N-51726 Contract Date 1/27/75 National Board No. _____
General Electric Co., 175 Curtner Ave.,

2. Manufactured For San Jose, California 95125 Order No. 205-AD148
Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I
Name and Address

4. Location of Plant Baileytown, Indiana
Spare

5. Valve Identification MPL#B22-F013 Serial No. N56000-01-0100 Drawing No. H-56000 Rev. C

Type Safety Relief Orifice Size R Pipe Size _____ Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch

6. Set Pressure (PSIG) 1130 _____
575° F
Rated Temperature

Stamped Capacity 850500#/Hr. Sat. 3 % Overpressure _____ Blowdown (PSIG) 5%

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class 1 Edition 1971, Addenda Date Summer 1972, Case No. _____

Pressure Containing or Pressure Retaining Components

	Serial No. Identification	Material Specification Including Type or Grade
a. Crossed Forging		
Body	<u>N90118-35-0031</u>	<u>ASTM A105-71</u> <u>ASME SA105</u>
Bonnet	<u>N89717-36-0086</u>	<u>ASTM A105-71</u> <u>ASME SA105</u>
b. Bar Stock and Forgings		
XXXXXX Disc Insert	<u>N89715-36-0107</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
Nozzle	<u>N89713-33-0051</u>	<u>ASTM A182-71 Type 316</u> <u>ASME SA182 Type 316</u>
Disc Holder K55484-39-0134	<u>N89714-35-0146</u> <u>N89724-36-0111</u>	<u>AMS 5662B</u> <u>ASTM A105-71</u> <u>ASME SA105</u>
Spring Washers K55466-36-0095	<u>N89723-38-0129</u>	<u>ASTM A193-71 Gr. B6</u> <u>ASME SA193 Gr. B6</u>
Adjusting Bolt	<u>N89726-40-0133</u>	<u>ASTM A564 Type 630</u> <u>ASME SA564 Type 630</u>
Spindle K55465-35-0104	<u>N89720-38-0126</u>	
Spindle Ball	<u>N89721-0204</u>	<u>Stoody No. 6</u>
Thrust Bearing Adapter	<u>N89725-34-0104</u>	<u>ASTM A193-71 Gr. B6</u> <u>ASME SA193 Gr. B6</u>

	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring	<u>N89722-0069</u>	<u>ASTM A304-66</u>
d. Bolting	_____	_____
e. Other Parts such as Pilot Components	_____	_____
Inlet Stud	<u>N89727-1215 thru 1226</u>	<u>ASME SA193 Gr. B7</u>
Inlet Nut	<u>N89728-1209 thru 1220</u>	<u>ASME SA194 Gr. 2H</u>
Bonnet Stud	<u>N89718-1234 thru 1245</u>	<u>ASME SA193 Gr. B7</u>
Bonnet Nut	<u>N89719-1228 thru 1239</u>	<u>ASME SA194 Gr. 2H</u>
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

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

Date 6-22 19 76 Signed Crosby Valve & Gage Co. By [Signature]
 Manufacturer QA Manager

Certificate of Authorization No. 926 expires October 28, 1977

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 Factory Mutual Systems*, Norwood, Mass. have inspected the equipment described in this Data Report on _____ 19____ and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

Date 6/22/76
[Signature] Commission Mass 1209
 Inspector National Board, State, Province and No.

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



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/5/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	Replacement	Yes, Code Class 2

7. **Description Of Work Performed:** Replaced relief valve SLC-RV-29A. The replacement work was performed as follows
- 1) Removed existing relief valve
 - 2) Installed new relief valve
 - 3) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 1200 to 1300 Psig Test Temperature: 80.6° F
 Component Design Pressure: 1400 Psig Temperature: 150° F

9. Remarks: See attached NV-1 Code Data Report for new relief valve Serial No 137180 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 R. A. Meen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/6/94 Date 7-6-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 3-24-94 to 7-1-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dr. J. S. Smith Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/6/94

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

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

1. Manufactured and certified by Kumkle Industries, Inc.
(name and address of NV Certificate Holder)
Lonerzan Valve Division, 8222 Bluffton Road, Fort Wayne, TN 46319
2. Manufactured 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
3. 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
4. Valve VDSCE5 Orifice size 3/4 Nom. inlet size 1" Outlet size 2"
(model no., series no.) (in.) (in.) (in.)
5. ASME Code, Section III, Division 1: 1974 Winter 1974 2 N/A
(edition) (addenda date) (class) (Code Case no.)
6. Type Spring 1400 N/A 100° F 2100 at 33 min °F
(spring, pilot or power operated) (set pressure, psig) (blowdown, psi) (rated temp.) (hydra. test, psig, inlet)
7. Identification 137180-1-1 thru -1-2 N/A A030766 Rev. 0 N/A 1994
(Cert. Holder's serial no.) (CRN) (drawing no.) (Nat'l. Bd. no.) (year built)
8. Control ring settings N/A SLC-RV-29A, S/N 137180-1-1
9. Pressure retaining items:

David M. Bosi
 6/21/94

	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 Stem	31828	SA-479 TY 316	75 ksi
XXXXXX Ring Pin Screws	30091	SA-479 TY 316	75 ksi
XXXXXX 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 **

10. 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)
11. Remarks: * Spring exempt from material requirements of NC-2000 but meets design requirements of NC-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. 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, 1994
 Date 2-24-94 Name Kumkle Industries, Inc.
Lonerzan 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.

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 2-24-99, 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 2-24-99 Signed [Signature] Commissions NB 7444 (NB1A), Mich 402 Ind. 840
[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:** Washington Public Power Supply System (WPPSS) **Date:** 7/5/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	Replacement	Yes, Code Class 2

7. **Description Of Work Performed:** Replaced relief valve SLC-RV-29B. The replacement work was performed as follows
- 1) Removed existing relief valve
 - 2) Installed new relief valve
 - 3) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 1200 to 1300 Psig Test Temperature: 79.2° F
 Component Design Pressure: 1400 Psig Temperature: 150° F

9. Remarks: See attached NV-1 Code Data Report for new relief valve Serial No 137180 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 RA Man
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/6/94 Date 7-6-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 3-24-94 to 7-1-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Am. Abgent Commissions 9556W NBE
 Inspector's Signature National Board, State, and Endorsements
 Date 7/6/94

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

Kirkle Industries, Inc.

- Manufactured and certified by Lonerzan Valve Division, 8222 Bluffton Road, Fort Wayne, TN 46319
(name and address of NV Certificate Holder)
- Manufactured for Washington Public Power Supply System, WNP-2 OPS WHS Complex, Warehouse 1, North Power Plant Loc 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 VD50DS 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) (set pressure, psig) (blowdown, psi) (rated temp.) (hydro. 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. Bd. no.) (year built)
- Control ring settings N/A
- Pressure retaining items: SLC-RV-29B, S/N 137180-1-2
Quartz Sup's

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	6/21/94 Tensile Strength
Body	T3815-1, -2	SA-351 Gr. CF8M	70 ksi
Bonnet XXXXX	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
XXXXXX 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 **

10. Relieving capacity 63,533 lb./hr. (17.7 GPM) @ 10% overpressure as certified by the National Board 01/25/85
(steam or fluid, lb/hr) (psi) (date)

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

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
 Kirkle Industries, Inc.
 Date 2-24-94 Name Lonerzan Valve Division Signed Brian J. McClinton
(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 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. Quacy 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: Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington | Date: 7/15/94
Sheet: 1 of 1 |
| 2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington | Unit: WNP-2 |
| 3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS) | |
| 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 | |
| 6. Identification Of Components Repaired Or Replaced And Replacement Components | |

Name Of Component	Name Of Manufacturer	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	WPPSS	B22-G001D-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed:** Replaced existing relief valve MS-RV-1D. The replacement work was performed as follows
- 1) Removed existing relief valve MS-RV-1D, Serial No N63790-00-0050 with set pressure of 1175 Psig at rated temperature of 575° F
 - 2) Installed replacement relief valve with Serial No N63790-00-0047 with set pressure of 1175 Psig at rated temperature of 575° F
 - 3) Replaced four (4) nuts for the relief valve inlet joint
 - 4) Replaced two (2) bolts for the relief valve outlet joint
 - 5) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test

NOTES -

- 1) ASME Section III Code Class 1, 1971 Edition with Winter 1973 Addenda for the piping system
- 2) ASME Section III Code Class 1, 1971 Edition with no Addenda for the relief valve



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 1021/6.7 Psig Test Temperature: 200.7/79.6° F
 Component Design Pressure: 1250/500 Psig Temperature: 575/470° F

9. Remarks: 1) See attached NV-1 Code Data Report for replacement relief valve Serial No N63790-00-0047
 2) Nominal operating pressure test on relief valve inlet flanged joint - test pressure of 1021 Psig and test temperature of 200.7° F
 3) Pneumatic test on relief valve outlet joint, body to bonnet joint, nozzle ring and adjusting ring set screw joints - test pressure of 6.7 Psig and test temperature of 79.6° F
 4) Component design pressure and temperature - 1250 Psig at 575° F for relief valve inlet piping and 500 Psig at 470° F for relief valve outlet piping

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. A. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4/28/94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Haggan Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94

CROSBY

CROSBY VALVE & GAGE COMPANY, 1
WRENTHAM, MASS PLAN NO. 2-1013

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

Receipt Sup 5
6/26/84

- 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. N63790-00-0047 Drawing No. DS-A-63790 Rev. C
Type Safety Relief Orifice Size R Pipe Size -- Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Inch Inch Inch Inch
Power Actuated
- Set Pressure (psig) 1175 575° F
Rated Temperature
- Stamped Capacity 884,314 @ 3 Overpressure -- Blowdown (psig) 2% to 11%
975 psig (Assembled Valve)
- Hydrostatic Test (psig) Inlet 2370 Outlet 1100 psig (Body Only)
(Applicable to Valves for Closed Systems Only)

Pressure Retaining Pieces

	Serial No. Identification	Material Specification Including Type or Grade
a. Bar Stock & Forgings		
Body	<u>N93183-35-0066</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Bonnet	<u>N93407-35-0029</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
b. Disc Insert		
Disc Insert	<u>N93185-34-0078</u>	<u>ASME SA637 Gr. 718</u>
Nozzle	<u>N93184-32-0049</u>	<u>ASME SA182 Gr. F316</u>
Disc Holder *K55484-35-0098	<u>*N89714-34-0136</u>	<u>AMS 5662B</u>
Spring Washers K62858-35-0029	<u>K62856-35-0085</u> <u>K62857-35-0050</u>	<u>ASTM A105-71 Gr. II</u> <u>ASME SA105 Gr. II</u>
Adjusting Bolt	<u>N93410-33-0054</u>	<u>ASME SA193 Gr. B6</u>
Spindle Point K62873-37-0148	<u>N89720-43-0147</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
c. Spring K62858-35-0029	<u>*N89722-0003</u>	<u>ASTM A304-66 Gr. 4161 H</u>
d. Bolting		
Spindle Ball		<u>7X00380110</u>
e. Thrust Bearing Adapter		
Thrust Bearing Adapter	<u>N93213-0215</u> <u>N93409-32-0049</u>	<u>Stoody #6</u> <u>ASME SA193 Gr. B6</u>
Bonnet Stud (BWS, I17)	<u>N93207-0561 thru 0572</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Bonnet Stud Nut (J87)	<u>N93210-0781 thru 0792</u>	<u>ASME SA194 Gr. 2H</u>
Inlet Stud (BW6)	<u>N93216-0563 thru 0574</u>	<u>ASTM A193-71 Gr. B7</u> <u>ASME SA193 Gr. B7</u>
Inlet Stud Nut (BW8)	<u>N93218-0567 thru 0578</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>
Adjusting Bolt Button K63618-33-0055	<u>N93411-33-0055</u>	<u>ASME SA193 Gr. B6</u>

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

MS-4420
Ruler's 44/88
No 3790-00-0047

CERTIFICATE OF COMPLIANCE

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

Class 1 (Date)

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

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

symbol expires September 30, 1983.
(Date)

CERTIFICATION OF DESIGN

Design information on file at Crosby Valve & Gage Company

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

Design specifications certified by 1 Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by 1 W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

Signature not required - list name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Systems* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 1/9, 19 81 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer makes any warrant, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the Inspector nor his employer shall be 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 [Signature]
(Inspector)

FOR INFORMATION ONLY
Commissions MASS 126 F
(Nat'l. Bd., State, Prov. and No.)

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

ZX00380111



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

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Main Steam (MS) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/15/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001B	WPPSS	B22-G001B-P1	N/A	N/A	1983	Replacement	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 existing relief valve MS-RV-5B, Serial No N63790-00-0061 with set pressure of 1205 Psig at rated temperature of 575° F
- 2) Installed replacement relief valve with Serial No N56000-02-0043* with set pressure of 1205 Psig at rated temperature of 575° F
- 3) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test

NOTES -

- 1) ASME Section III Code Class 1, 1971 Edition with Winter 1973 Addenda for the piping system
- 2) ASME Section III Code Class 1, 1971 Edition with Summer 1972 Addenda for the "Bailly" relief valve
- 3) * "Bailly" relief valve Serial No N56000-02-0043 was modified by Crosby to Serial No N63790-00-0136



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 1021/6.8 Psig Test Temperature: 200.7/82° F
 Component Design Pressure: 1250/500 Psig Temperature: 575/470° F

9. Remarks: 1) See attached NV-1 (Pre - Modification) Code Data Report for MSR/V, Serial No N56000-02-0043
 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting the modification (upgrade) work performed by Crosby for "Bailly" relief valve
 3) Nominal operating pressure test on relief valve inlet flanged joint - test pressure of 1021 Psig and test temperature of 200.7° F
 4) Pneumatic test on relief valve outlet joint, body to bonnet joint, nozzle ring and adjusting ring set screw joints - test pressure of 6.8 Psig and test temperature of 82° F
 5) Component design pressure and temperature - 1250 Psig at 575° F for relief valve inlet piping and 500 Psig at 470° F for relief valve outlet piping

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By R. Moe
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4/27/94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hoegarty Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MA

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

PLAN No. 2-1012
Repair Supp
6/20/94

REPAIR AND REPLACEMENT
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address)
(Repair organization's P.O. No., Job No., etc.) NV4000020

2. Owner WASHINGTON PUBLIC POWER RICHLAND WA 99352-0968
(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND WA

5. a. Identifying Nos. N63790-00-0136 -- -- -- -- 1973
(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)
b. Identification of component repaired or replacement component --
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic (X) Pneumatic () Design Pressure () Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 19 71 Edition
Addenda NO Code Case --

9. Description of work N56000-02-0043 WAS MODIFIED TO N63790-00-0136
(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)
ASME SEC.XI.1980 EDITION WINTER 1980 ADDENDA.

10. Remarks: **THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:**

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

6/20/94

CERTIFICATE OF COMPLIANCE

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

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

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Factory Mutual Systems

Date 2/25 1994
Signed Will P. Celli
(Inspector)

Commissions M61455
(Nat'l. Bd., State, Prov. and No.)



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

Quilip Supp.
6/20/74

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

Q.C.-44A

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
Name and Address

Model No. HB-65-BP-FN Order No. N-105286 Contract Date 6/28/71
General Electric Company

2. Manufactured For San Jose, California Order No. 205-AD148
Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I.,
Name and Address Baileytown, Indiana

4. Location of Plant Baileytown, Indiana

5. Valve Identification MPL #B-22-F013 Serial No. N56000-02-0043 Drawing No. H-56000 Rev. C

Type Safety Relief Orifice Size R Pipe Size -- Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch

6. Set Pressure (PSIG) 1205 575° F
Rated Temperature

Stamped Capacity 906250 Lbs. Hr. : 3 % Overpressure - Blowdown 5%
Sat. Steam

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class 1 Edition 1971 Addenda Date Summer 1972
~~XXXX~~

Pressure Containing or Pressure Retaining Components

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





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

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Main Steam (MS) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/15/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001B	WPPSS	B22-G001B-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed:** Replaced existing relief valve MS-RV-2B. The replacement work was performed as follows
- 1) Removed existing relief valve MS-RV-2B, Serial No N63790-00-0049 with set pressure of 1175 Psig at rated temperature of 575° F
 - 2) Installed replacement relief valve with Serial No N56000-01-0037* with set pressure of 1175 Psig at rated temperature of 575° F
 - 3) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test

NOTES -

- 1) ASME Section III Code Class 1, 1971 Edition with Winter 1973 Addenda for the piping system
- 2) ASME Section III Code Class 1, 1971 Edition with Summer 1972 Addenda for the "Bailly" relief valve
- 3) * "Bailly" relief valve Serial No N56000-01-0037 was modified by Crosby to Serial No N63790-00-0134



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 1021/6.7 Psig Test Temperature: 200.7/79.6° F
 Component Design Pressure: 1250/500 Psig Temperature: 575/470° F

9. Remarks: 1) See attached NV-1 (Pre - Modification) Code Data Report for MSRV, Serial No N56000-01-0037
 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting the modification (upgrade) work performed by Crosby for "Bailly" relief valve
 3) Nominal operating pressure test on relief valve inlet flanged joint - test pressure of 1021 Psig and test temperature of 200.7° F
 4) Pneumatic test on relief valve outlet joint, body to bonnet joint, nozzle ring and adjusting ring set screw joints - test pressure of 6.9 Psig and test temperature of 79.6° F
 5) Component design pressure and temperature - 1250 Psig at 575° F for relief valve inlet piping and 500 Psig at 470° F for relief valve outlet piping

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By RAMA
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4-27-94 to 7-5-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

D. Haggan Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94

CROSBY

CROSBY VALVE & GAGE COMPANY

WRENTHAM, MA

PLAN No. 2-1013

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

Buildip Sup's
6/26/94

REPAIR AND REPLACEMENT
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093

(Name and Address)

(Repair organization's P.O. No., Job No., etc.) NV4000020

2. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0968

(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND, WA

5. a. Identifying Nos. N63790-00-0134 - - - - - 1973

(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)

b. Identification of component repaired or replacement component -

c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic Pneumatic Design Pressure Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 19 71 Edition

Addenda NO

Code Case -

9. Description of work N56000-01-0037 WAS MODIFIED TO N63790-00-0134

(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)

ASME SEC. XI, 1980 EDITION WINTER 1980 ADDENDA.

10. Remarks: THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:

PART	PART NO.	MODIFIED TO PART NO.
BODY	N90118	N93183-43-0126
BONNET	N89717	N93407-41-0052
SPINDLE ASSY	K55465	K62873-46-0060
SPR. WASHER	N89724	K62856-41-0200
SPR. WASHER	N89723	K62857-41-0200
SPRING ASSY	K55466	K62858-31-0006
PART	PART NO.	REPLACED WITH
NOZZLE	N89713	N93184-51-0156
DISC INSERT	N89715	N93185-52-0202
SPRING	NX2689	NX2689-0134
THR. BRG. ADAPT.	N89725	N93409-34-0008
ADJ. BOLT	N89726	N93410-36-0132
ADJ. BOLT BUTT. COMMERCIAL		N93411-33-0008
ADJ. BOLT ASSY COMMERCIAL		K63618-31-0001
INLET STUD	N89727	N93216/NAD QTY 10

CERTIFICATE OF COMPLIANCE

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

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

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 24, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Date 2/24, 1994 Factory Mutual Systems
Signed Will P. Celli Commissions 116, 145
(Inspector) (Nat'l. Bd., State, Prov. and No.)



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

Dulaip Singh

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

Q.C.-44A 6/26/79

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
Name and Address

Model No. HB-65-BP-FN Order No. N-105286 Contract Date 6/28/71
General Electric Company

2. Manufactured For San Jose, California Order No. 205-AD148
Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I,
Name and Address Baileytown, Indiana

4. Location of Plant Baileytown, Indiana

5. Valve Identification MPL #B-22-F013 Serial No. N56000-01-0037 Drawing No. H-56000 Rev. C

Type Safety Relief Orifice Size R Pipe Size - Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch

6. Set Pressure (PSIG) 1175 575° F
Rated Temperature

Stamped Capacity 883950 Lbs. Hr. 3 % Overpressure - Blowdown (PSIG) 5%
Sat. Steam

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class 1 Edition 1971 Addenda Date Summer 1972

~~XXXX~~

Pressure Containing or Pressure Retaining Components

	Serial No. Identification	Material Specification Including Type or Grade
a. XXXXXX Forgings		
Body	<u>N90118-32-0008</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Bonnet XXXXXX	<u>N89717-32-0021</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
b. Bar Stock and Forgings		
XXXXXX Disc Insert	<u>N89715-31-0028</u>	<u>ASTM A-461-65 Type 630</u> <u>ASTM A-182-71 F316</u> <u>ASME SA-182 F316</u>
Nozzle	<u>N89713-32-0039</u>	
Disc Holder	<u>N89714-32-0037</u>	<u>AMS 5662 B</u>
Spring Washers	Top <u>N89724-32-0037</u> Bottom <u>N89723-32-0008</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Adjusting XXXX Bolt	<u>N89726-33-0046</u>	<u>ASTM A-193-71 Gr. B6</u> <u>ASME SA-193 Gr. B6</u>
Spindle Point	<u>N89720-32-0046</u>	<u>ASTM A-564-72 Type 630</u>



3.3.75



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

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 1. Owner: Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington | Date: 7/15/94
Sheet: 1 of 1 |
| 2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington | Unit: WNP-2 |
| 3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS) | |
| 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 | |
| 6. Identification Of Components Repaired Or Replaced And Replacement Components | |

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001C	WPPSS	B22-G001C-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed:** Replaced existing relief valve MS-RV-4C. The replacement work was performed as follows
- 1) Removed existing relief valve MS-RV-4C, Serial No N63790-00-0058 with set pressure of 1195 Psig at rated temperature of 575° F
 - 2) Installed replacement relief valve with Serial No N63790-00-0055 with set pressure of 1195 Psig at rated temperature of 575° F
 - 3) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test

NOTES -

- 1) ASME Section III Code Class 1, 1971 Edition with Winter 1973 Addenda for the piping system
- 2) ASME Section III Code Class 1, 1971 Edition with no Addenda for the relief valve



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 1021/6.8 Psig Test Temperature: 200.7/78.4° F
 Component Design Pressure: 1250/500 Psig Temperature: 575/470° F

9. Remarks: 1) See attached NV-1 Code Data Report for replacement relief valve Serial No N63790-00-0055
 2) Nominal operating pressure test on relief valve inlet flanged joint - test pressure of 1021 Psig and test temperature of 200.7° F
 3) Pneumatic test on relief valve outlet joint, body to bonnet joint, nozzle ring and adjusting ring set screw joints - test pressure of 6.8 Psig and test temperature of 78.4° F
 4) Component design pressure and temperature - 1250 Psig at 575° F for relief valve inlet piping and 500 Psig at 470° F for relief valve outlet piping

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. J. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4/27/94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hoggan Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94



CROSBY VALVE & GAGE COMPANY
 WRENTHAM, MASS
Cultrip Surf's

FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES 6/26/94 Q.C.-44D
 As Required by the Provisions of the ASME Code Rules

DATA REPORT
 Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02093
 Name and Address
- Model No. HB-65-BP-FN Order No. N94275 Contract Date 4/24/79 National Board No. N/A
2. Manufactured For General Electric Company, 175 Curtner Ave., San Jose, CA 95125 Order No. 205-AJ986
 Name and Address
3. Owner Washington Public Power Supply Systems Richland, Washington 99352
 Name and Address
4. Location of Plant Hanford Reservation, Richland, Washington 99352
5. Valve Identification MPL/B22-F013 Serial No. N63790-00-0055 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) 1195 5750 F
 Rated Temperature
- Stamped Capacity 899,185 @ 3 % Overpressure -- Slowdown (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		ASTM A105-71 Gr. II
Body	<u>N93183-35-0074</u>	ASME SA105 Gr. II
Bonnet	<u>N93407-35-0037</u>	ASTM A105-71 Gr. II ASME SA105 Gr. II
b. Crossings Supports Disc Insert	<u>N93185-34-0087</u>	ASME SA637 Gr. 718
Nozzle	<u>N93184-33-0059</u>	ASME SA182 Gr. F316
Disc Holder K55484-45-0191	<u>N89714-37-0219</u>	AMS 5662B
Spring Washers K62858-35-0037	<u>K62856-35-0093</u> <u>K62857-35-0058</u>	ASTM A105-71 Gr. II ASME SA105 Gr. II
Adjusting Bolt	<u>N93410-33-0062</u>	ASME SA193 Gr. B6
Spindle Point K62873-35-0055	<u>*N89720-34-0063</u>	ASTM A564-71 Type 630 ASME SA564 Type 630
c. Spring K62858-35-0037	<u>*N89722-0013</u>	ASTM A304-66 Gr. 4161H
d. Bolting		
Spindle Ball		
e. Crossings K62873-35-0055	<u>N93213-0055</u>	Stellite #6
Thrust Bearing Adapter	<u>N93409-32-0057</u>	ASME SA193 Gr. B6
Bonnet Stud	(BW5) <u>N93207-0657 thru 0668</u>	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Bonnet Stud Nut	(J87) <u>N93210-0877 thru 0888</u>	ASME SA194 Gr. 2H
Inlet Stud	(BW6) <u>N93216-0659 thru 0670</u>	ASTM A193-71 Gr. B7 ASME SA193 Gr. B7
Inlet Stud Nut	(BW8) <u>N93218-0663 thru 0674</u>	ASTM A194-71 Gr. 2H ASME SA194 Gr. 2H
Adjusting Bolt Button	<u>N93411-33-0064</u>	ASME SA193 Gr. B6

Z X00380140

Valve originally built against Crosby Order No. N103600, Assembly No. N50000. 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.

N63790-00-0055

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. 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 ¹Boyd P. Brooks

PE State California Reg. No. 13655

Stress report certified by ¹W.D. Greenlaw

PE State Massachusetts Reg. No. 14784

¹Signature not required - list name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Systems* of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 12/5 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 12/5 1980
Signed John E. Curran (Inspector) Commissions MASS 1266
(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

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Main Steam (MS) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/15/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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	WPPSS	B22-G001A-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed:** Replaced existing relief valve MS-RV-4A. The replacement work was performed as follows
- 1) Removed existing relief valve MS-RV-4A, Serial No N63790-00-0059 with set pressure of 1205 Psig at rated temperature of 575° F
 - 2) Installed replacement relief valve with Serial No N56000-01-0099* with set pressure of 1205 Psig at rated temperature of 575° F
 - 3) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test

- NOTES -**
- 1) ASME Section III Code Class 1, 1971 Edition with Winter 1973 Addenda for the piping system
 - 2) ASME Section III Code Class 1, 1971 Edition with Summer 1972 Addenda for the "Bailly" relief valve
 - 3) * "Bailly" relief valve Serial No N56000-01-0099 was modified by Crosby to Serial No N63790-00-0135



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 1021/6.7 Psig Test Temperature: 200.7/88° F
 Component Design Pressure: 1250/500 Psig Temperature: 575/470° F

9. Remarks: 1) See attached NV-1 (Pre - Modification) Code Data Report for MSRV, Serial No N56000-01-0099
 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting the modification (upgrade) work performed by Crosby for "Bailly" relief valve
 3) Nominal operating pressure test on relief valve inlet flanged joint - test pressure of 1021 Psig and test temperature of 200.7° F
 4) Pneumatic test on relief valve outlet joint, body to bonnet joint, nozzle ring and adjusting ring set screw joints - test pressure of 6.7 Psig and test temperature of 88° F
 5) Component design pressure and temperature - 1250 Psig at 575° F for relief valve inlet piping and 500 Psig at 470° F for relief valve outlet piping

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. Amos
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts, have inspected the components described in this Owner's Report during the period 4/27/94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Jim Aggarth Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94

CROSBY

CROSBY VALVE & GAGE COMPANY

WRENTHAM, MA

PLAN NO 2-1015
Zulcip Equip

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

6/27/94

**REPAIR AND REPLACEMENT
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS**

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093

(Name and Address)

(Repair organization's P.O. No., Job No., etc.) NV4000020

2. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0968

(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND, WA

5. a. Identifying Nos. N63790-00-0135 - - - - - 1973

(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)

b. Identification of component repaired or replacement component -

c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic Pneumatic Design Pressure Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 19 71 Edition

Addenda NO

Code Case -

9. Description of work N56000-01-0099 WAS MODIFIED TO N63790-00-0135

(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)

ASME SEC. XI, 1980 EDITION WINTER 1980 ADDENDA.

10. Remarks: THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:

PART	PART NO.	MODIFIED TO PART NO.
BODY	N90118	N93183-46-0129
BONNET	N89717	N93407-42-0053
SPINDLE ASSY	K55465	K62873-45-0059
SPR. WASHER	N89724	K62856-42-0201
SPR. WASHER	N89723	K62857-42-0201
SPRING ASSY	K55466	K62858-31-0003
PART	PART NO.	REPLACED WITH
NOZZLE	N89713	N93184-51-0155
DISC INSERT	N89715	N93185-52-0199
SPRING	NX2689	N89722-0072
THR. BRG. ADAPT.	N89725	N93409-32-0006
ADJ. BOLT	N89726	N93410-32-0005
ADJ. BOLT BUTT. COMMERCIAL		N93411-33-0012
ADJ. BOLT ASSY COMMERCIAL		K63618-31-0005

17-2/2/94

CERTIFICATE OF COMPLIANCE

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

(repair/replacement)

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

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Factory Mutual Systems

Date 2/25, 1994

Signed M. J. P. G. L.
(Inspector)

Commissions 616155
(Nat'l. Bd., State, Prov. and No.)

PLAN NO. 2-1015.

Quairp *Emp 5*
7/15/94

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



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

Quidip Sup's

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

Q.C.-44C 6/27/84

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
 HB-65-BP- Name and Address

Model No. FN Order No. N-51726 Contract Date 1/27/75 National Board No. _____
 General Electric Co., 175 Curtner Ave.,

2. Manufactured For San Jose, California 95125 Order No. 205-AD148
 Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I
 Name and Address

4. Location of Plant Baileytown, Indiana
Spare

5. Valve Identification MPL#B22-F013 Serial No. N56000-01-0099 Drawing No. H-56000 Rev. C
 Type Safety Relief Orifice Size R Pipe Size _____ Inlet 6 Outlet 10
 Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch

6. Set Pressure (PSIG) 1130 _____ 575° F
 Rated Temperature

Stamped Capacity 850500#/Hr. Sat. 3 % Overpressure _____ Blowdown (PSIG) 5%

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

7. The material, design, construction and workmanship comply with ASME Code, Section III.
 Class 1 Edition 1971, Addenda Date Summer 1972, Case No. _____

Pressure Containing or Pressure Retaining Components

a. Casting Forging	Serial No. Identification	Material Specification including Type or Grade
Body	<u>N90118-35-0032</u>	<u>ASTM A105-71</u> <u>ASME SA105</u>
Bonnet	<u>N89717-36-0083</u>	<u>ASTM A105-71</u> <u>ASME SA105</u>
b. Bar Stock and Forgings		
NOZZLE Disc Insert	<u>N89715-36-0106</u>	<u>ASTM A564-71 Type 630</u> <u>ASME SA564 Type 630</u>
Nozzle	<u>N89713-36-0106</u>	<u>ASTM A182-71 Type 316</u> <u>ASME SA182 Type 316</u>
Disc Holder <u>K55484-39-0135</u>	<u>N89714-35-0173</u>	<u>AMS 5662B</u>
Spring Washers <u>K55466-36-0093</u>	<u>N89724-36-0122</u> <u>N89723-38-0131</u>	<u>ASTM A105-71</u> <u>ASME SA105</u>
Adjusting Bolt	<u>N89726-40-0119</u>	<u>ASTM A193-71 Gr. B6</u> <u>ASME SA193 Gr. B6</u>
Spindle <u>K55465-35-0106</u>	<u>N89720-38-0129</u>	<u>ASTM A564 Type 630</u> <u>ASME SA564 Type 630</u>
Spindle Ball	<u>N89721-0206</u>	<u>Stoddy No. 6</u>
Thrust Bearing Adapter	<u>N89725-34-0116</u>	<u>ASTM A193-71 Gr. B6</u> <u>ASME SA193 Gr. B6</u>

	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring	<u>N89722-0072</u>	<u>ASTM A304-66</u>
d. Bolting	_____	_____
e. Other Parts such as Pilot Components	_____	_____
<u>Inlet Stud</u>	<u>N89727-1203 thru 1214</u>	<u>ASME SA193 Gr. B7</u>
<u>Inlet Nut</u>	<u>N89728-1197 thru 1208</u>	<u>ASME SA194 Gr. 2H</u>
<u>Bonnet Stud</u>	<u>N89718-1222 thru 1233</u>	<u>ASME SA193 Gr. B7</u>
<u>Bonnet Nut</u>	<u>N89719-1216 thru 1227</u>	<u>ASME SA194 Gr. 2H</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

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

Date 6-22 1976 Signed Crosby Valve & Gage Co. By *Ch. J. ...*
 Manufacturer QA Manager

Certificate of Authorization No. 926 expires October 28, 1977

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 Factory Mutual Systems*, Norwood, Mass. have inspected the equipment described in this Data Report on _____ 19____ and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

Date 6/22/76 19____
[Signature] Commission *MA 1209*
 Inspector National Board, State, Provincial and No.

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



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/15/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	WPPSS	B22-G001A-P1	N/A	N/A	1983	Replacement	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 existing relief valve MS-RV-2A, Serial No N63790-00-0054 with set pressure of 1185 Psig at rated temperature of 575° F
2) Installed replacement relief valve with Serial No N63790-00-0051 with set pressure of 1185 Psig at rated temperature of 575° F
3) Replaced one (1) nut for the relief valve inlet joint
4) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test

NOTES -

- 1) ASME Section III Code Class 1, 1971 Edition with Winter 1973 Addenda for the piping system
2) ASME Section III Code Class 1, 1971 Edition with no Addenda for the relief valve



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 1021/6.8 Psig Test Temperature: 200.7/82.6° F
 Component Design Pressure: 1250/500 Psig Temperature: 575/470° F

9. Remarks: 1) See attached NV-1 Code Data Report for replacement relief valve Serial No N63790-00-0051
 2) Nominal operating pressure test on relief valve inlet flanged joint - test pressure of 1021 Psig and test temperature of 200.7° F
 3) Pneumatic test on relief valve outlet joint, body to bonnet joint, nozzle ring and adjusting ring set screw joints - test pressure of 6.8 Psig and test temperature of 82.6° F
 4) Component design pressure and temperature - 1250 Psig at 575° F for relief valve inlet piping and 500 Psig at 470° F for relief valve outlet piping

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date 7-14-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4/27/94 to 7/13/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

D. Hoggarth Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94

MS ~~RV's~~
3E

PLAN NO. 2-1016

Kuldrup Sup's
6/26/84

CROSBY		CROSBY VALVE & GAGE COMPANY WRENTHAM, MASS	
FORM NV-1 FOR SAFETY AND SAFETY RELIEF VALVES As Required by the Provisions of the ASME Code Rules		Q.C.-440	
DATA REPORT Safety and Safety Relief Valves			
1. Manufactured By <u>Crosby Valve & Gage Company, 43 Kendrick St., Wrentham, MA 02593</u> <small>Name and Address</small>			
Model No. <u>MB-65-22-PN</u> Order No. <u>N94275</u> Contract Date <u>4/24/79</u> National Board No. <u>N/A</u> <small>General Electric Company, 175 Currier Ave.,</small>			
2. Manufactured For <u>SAN JOSE, CA 95125</u> Order No. <u>705-A1986</u> <small>Name and Address</small>			
3. Owner <u>Washington Public Power System, Richland, Washington 99352</u> <small>Name and Address</small>			
4. Location of Plant <u>Hanford Reservation, Richland, Washington 99352</u>			
5. Valve Identification: <u>MPL #B22-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>1/2</u> Outlet <u>1/2</u> <small>Safety, Safety Relief, Pilot, inch inch inch inch</small>			
6. Set Pressure (psig) <u>1185</u> <u>575</u> <small>Rated Temperature</small>			
Stamped Capacity <u>891.250</u> <u>3</u> Overpressure <u>—</u> Blowdown (psig) <u>25</u> to 112 <small>975 psig (Assembled Valve)</small>			
Hydrostatic Test (psig) Inlet <u>2370</u> Outlet <u>1100</u> (psig) (Body Only) <small>(Applicable to Valves for Closed Systems Only)</small>			
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. Discs, Discs, Discs			
Disc Insert	<u>N93185-34-0083</u>	<u>ASME SA637 Gr. 71</u>	
Nozzle	<u>N93184-33-0055</u>	<u>ASME SA182 Gr. F316</u>	
Disc Holder	<u>K5534-35-0084</u> <u>N89714-34-0122</u>	<u>AHS 5662B</u>	
Spring Washers	<u>K62358-35-0033</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. Springs	<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 66</u>	
e. Thrust Bearing Adapter	<u>N93409-32-0053</u>	<u>ASME SA193 Gr. B6</u>	
Bonnet Stud (BW5, I17)	<u>N93207-0609 thru 0620</u>	<u>ASTM A193 Gr. B7</u>	
Bonnet Stud Nut (J87)	<u>N93210-0829 thru 0840</u>	<u>ASME SA194 Gr. 2H</u>	
Inlet Stud (BW6)	<u>N93216-0611 thru 0622</u>	<u>ASTM A193 Gr. B7</u>	
Inlet Stud Nut (BW8)	<u>N93218-0615 thru 0626</u>	<u>ASTM A194-71 Gr. 2H</u> <u>ASME SA194 Gr. 2H</u>	
Adjusting Bolt Suction	<u>N93411-33-0059</u>	<u>ASME SA193 Gr. B6</u>	
	<u>K63618-33-0059</u>		

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FOR INFORMATION ONLY

ZX00380611

N 63797-00-0051

Walter Eupis

3/1/89

Valve originally built against Crosby Order No. N103600, Assembly No. N36000. 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.O. Calwood (N Certificate Holder) Our ASME Certificate of Authorization No. 1878 to use the NY 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 02097 Design specifications certified by Boyd F. Brooks PE State California Reg. No. 13655 Stress report certified by W. D. Greenlaw PE State Massachusetts Reg. No. 14784

¹Signature not required - list name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the pump, or valve, described in this Data Report on 1/9/81 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code for Nuclear Power Plant Components.

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

Date 1/9 1981 Signed John E. Williams (Inspector) Commissions MASS 1266 (Nat'l. Bd., State, Prov. and No.)

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

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ZX00380612



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/15/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001B	WPPSS	B22-G001B-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Replaced existing relief valve MS-RV-4B. The replacement work was performed as follows
1) Removed existing relief valve MS-RV-4B, Serial No N63790-00-0056 with set pressure of 1195 Psig at rated temperature of 575° F
2) Installed replacement relief valve with Serial No N56000-02-0042* with set pressure of 1195 Psig at rated temperature of 575° F
3) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test

NOTES -

- 1) ASME Section III Code Class 1, 1971 Edition with Winter 1973 Addenda for the piping system
- 2) ASME Section III Code Class 1, 1971 Edition with Summer 1972 Addenda for the "Bailly" relief valve
- 3) * "Bailly" relief valve Serial No N56000-02-0042 was modified by Crosby to Serial No N63790-00-0137



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 1021/6.8 Psig Test Temperature: 200.7/82.2° F
 Component Design Pressure: 1250/500 Psig Temperature: 575/470° F

9. Remarks: 1) See attached NV-1 (Pre - Modification) Code Data Report for MSRV, Serial No N56000-02-0042
 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting the modification (upgrade) work performed by Crosby for "Bailey" relief valve
 3) Nominal operating pressure test on relief valve inlet flanged joint - test pressure of 1021 Psig and test temperature of 200.7° F
 4) Pneumatic test on relief valve outlet joint, body to bonnet joint, nozzle ring and adjusting ring set screw joints - test pressure of 6.8 Psig and test temperature of 82.2° F
 5) Component design pressure and temperature - 1250 Psig at 575° F for relief valve inlet piping and 500 Psig at 470° F for relief valve outlet piping

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By RAMON
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4-28-94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Hegerath Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94

CROSBY

CROSBY VALVE & GAGE COMPANY

WRENTHAM, MA

PLAN No. 2-1017

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

Repair Sup's
6/27/94

REPAIR AND REPLACEMENT
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address)
(Repair organization's P.O. No., Job No., etc.) NV4000020

2. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0968
(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND, WA

5. a. Identifying Nos. N63790-00-0137 -- -- -- -- 1973
(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)
b. Identification of component repaired or replacement component --
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic (X) Pneumatic () Design Pressure () Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 1971 Edition
Addenda NO Code Case --

9. Description of work N56000-02-0042 WAS MODIFIED TO N63790-00-0137
(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)
ASME SEC. XI, 1980 EDITION WINTER 1980 ADDENDA.

10. Remarks: THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:

PART	PART NO.	MODIFIED TO PART NO.
BODY	N90118	N93183-41-0124
BONNET	N89717	N93407-44-0055
SPINDLE ASSY	K55465	K62873-44-0058
SPR. WASHER	N89724	K62856-44-0203
SPR. WASHER	N89723	K62857-44-0203
SPRING ASSY	K55466	K62858-31-0001
PART	PART NO.	REPLACED WITH
NOZZLE	N89713	N93184-51-0157
DISC INSERT	N89715	N93185-54-0231
THRUST BRG. ADAPT	N89725	N93409-33-0007
ADJ. BOLT	N89726	N93410-32-0006
ADJ. BOLT BUTT. COMMERCIAL		N93411-34-0013
ADJ. BOLT ASSY COMMERCIAL		K63618-32-0006

L. 2/24/94

CERTIFICATE OF COMPLIANCE

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

Signed Lawrence J. Rice, QA Eng. Manager 25 Feb, 1994
(Authorized Rep. of Repair Organization) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

Factory Mutual Systems

Date 2/25, 1994

Signed Walter G. G. [Signature]
(Inspector)

Commissions 124135
(Nat'l. Bd., State, Prov. and No.)

Handwritten: 6/27/79



CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS.

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

Q.C.-44A

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
Name and Address

Model No. HB-65-BP-FN Order No. N-105286 Contract Date 6/28/71
General Electric Company

2. Manufactured For San Jose, California Order No. 205-AD148
Name and Address

3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I,
Name and Address Baileytown, Indiana

4. Location of Plant Baileytown, Indiana

5. Valve Identification MPL #B-22-F013 Serial No. N56000-02-0042 Drawing No. H-56000 Rev. C

Type Safety Relief Orifice Size R Pipe Size - Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch

6. Set Pressure (PSIG) 1195 575° F
Rated Temperature

Stamped Capacity 898800 Lbs. Hr. : 3 % Overpressure -- Blowdown ~~XXXX~~ 5%
Sat. Steam

Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

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

Class 1 Edition 1971 Addenda Date Summer 1972
~~XXXX~~

Pressure Containing or Pressure Retaining Components

	Serial No. Identification	Material Specification Including Type or Grade
a. XXXXXX Forgings		
Body	<u>N89711-32-0024</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Bonnet XXXXXX	<u>N89717-32-0018</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
b. Bar Stock and Forgings		
XXXXXX Disc Insert	<u>N89715-31-0034</u>	<u>ASTM A-461-65 Type 630</u>
Nozzle	<u>N89713-32-0031</u>	<u>ASTM A-182-71 F316</u> <u>ASME SA-182 F316</u>
Disc Holder	<u>N89714-32-0042</u>	<u>AMS 5662 B</u>
Spring Washers	<u>N89724-32-0042</u> <u>N89723-31-0003</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Adjusting XXXX Bolt	<u>N89726-32-0012</u>	<u>ASTM A-193-71 Gr. B6</u> <u>ASME SA-193 Gr. B6</u>
Spindle Point	<u>N89720-32-0034</u>	<u>ASTM A-564-72 Type 630</u>





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

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Main Steam (MS) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/15/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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	WPPSS	B22-G001D-P1	N/A	N/A	1983	Replacement	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 existing relief valve MS-RV-2D, Serial No N63790-00-0124 with set pressure of 1185 Psig at rated temperature of 575° F
 - 2) Installed replacement relief valve with Serial No N56000-01-0038* with set pressure of 1185 Psig at rated temperature of 575° F
 - 3) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test

NOTES -

- 1) ASME Section III Code Class 1, 1971 Edition with Winter 1973 Addenda for the piping system
- 2) ASME Section III Code Class 1, 1971 Edition with Summer 1972 Addenda for the "Bailly" relief valve
- 3) * "Bailly" relief valve Serial No N56000-01-0038 was modified by Crosby to Serial No N63790-00-0138



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 1021/6.7 Psig Test Temperature: 200.7/79.5° F
 Component Design Pressure: 1250/500 Psig Temperature: 575/470° F

9. Remarks: 1) See attached NV-1 (Pre - Modification) Code Data Report for MSR/V, Serial No N56000-02-0042
 2) See attached "Repair And Replacement To Nuclear Components And Systems In Nuclear Power Plants" Certification Report (QC 292A) documenting the modification (upgrade) work performed by Crosby for "Bailey" relief valve
 3) Nominal operating pressure test on relief valve inlet flanged joint - test pressure of 1021 Psig and test temperature of 200.7° F
 4) Pneumatic test on relief valve outlet joint, body to bonnet joint, nozzle ring and adjusting ring set screw joints - test pressure of 6.7 Psig and test temperature of 79.5° F
 5) Component design pressure and temperature - 1250 Psig at 575° F for relief valve inlet piping and 500 Psig at 470° F for relief valve outlet piping

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/15/94 Date 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4/27/94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

DM Vaggard Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements

Date 7-15-94

CROSBY

CROSBY VALVE & GAGE COMPANY

WRENTHAM, MA

PLAN. NO. 2-1018

**Q.C.-292, REV. 1/77
SHEET 1 OF 2**

*Ready Sup 5
6/27/94*

**REPAIR AND REPLACEMENT
TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS**

1. Work performed by Crosby Valve & Gage Company 43 Kendrick St. Wrentham, MA 02093
(Name and Address)
(Repair organization's P.O. No., Job No., etc.) NV4000020

2. Owner WASHINGTON PUBLIC POWER RICHLAND, WA 99352-0968
(Name and Address)

3. Name and Identification of Nuclear Power Plant HANFORD #2

4. Address of Nuclear Power Plant RICHLAND, WA

5. a. Identifying Nos. N63790-00-0138 -- -- -- -- 1973
(Mfr's Serial No.) (Nat'l Bd. No.) (Jurisdiction No.) (Other) (Year Built)
b. Identification of component repaired or replacement component --
c. Name of Manufacturer CROSBY VALVE & GAGE COMPANY

6. Tests conducted: Hydrostatic (X) Pneumatic () Design Pressure () Pressure 2370.0 psi

7. Identification of System MAIN STEAM

8. Applicable Section(s) III of ASME Code, 1971 Edition

Addenda NO

Code Case --

9. Description of work N56000-01-0038 WAS MODIFIED TO N63790-00-0138
(Use of additional sheet(s) or sketch(es) is acceptable if correctly identified)
ASME SEC. XI, 1980 EDITION WINTER 1980 ADDENDA.

10. Remarks: THIS MODIFICATION CONSISTED OF THE FOLLOWING CHANGES:

PART	PART NO.	MODIFIED TO PART NO.
BODY	N90118	N93183-44-0127
BONNET	N89717	N93407-45-0056
SPINDLE ASSY	K55465	K62873-43-0057
SPR. WASHER	N89724	K62856-45-0204
SPR. WASHER	N89723	K62857-45-0204
SPRING ASSY	K55466	K62858-31-0002
PART	PART NO.	REPLACED WITH
NOZZLE	N89713	N93184-51-0154
DISC INSERT	N89715	N93185-52-0201
THR. BRG. ADAPT.	N89725	N93409-34-0011
ADJ. BOLT	N89726	N93410-31-0004
ADJ. BOLT BUTT. COMMERCIAL		N93411-33-0011
ADJ. BOLT ASSY COMMERCIAL		K63618-31-0004

6/27/94

CERTIFICATE OF COMPLIANCE

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

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

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the repair or replacement described in this report on Feb 25, 1994 and state that to the best of my knowledge and belief, this repair or replacement has been made or constructed in accordance with the applicable section of the ASME Code.

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

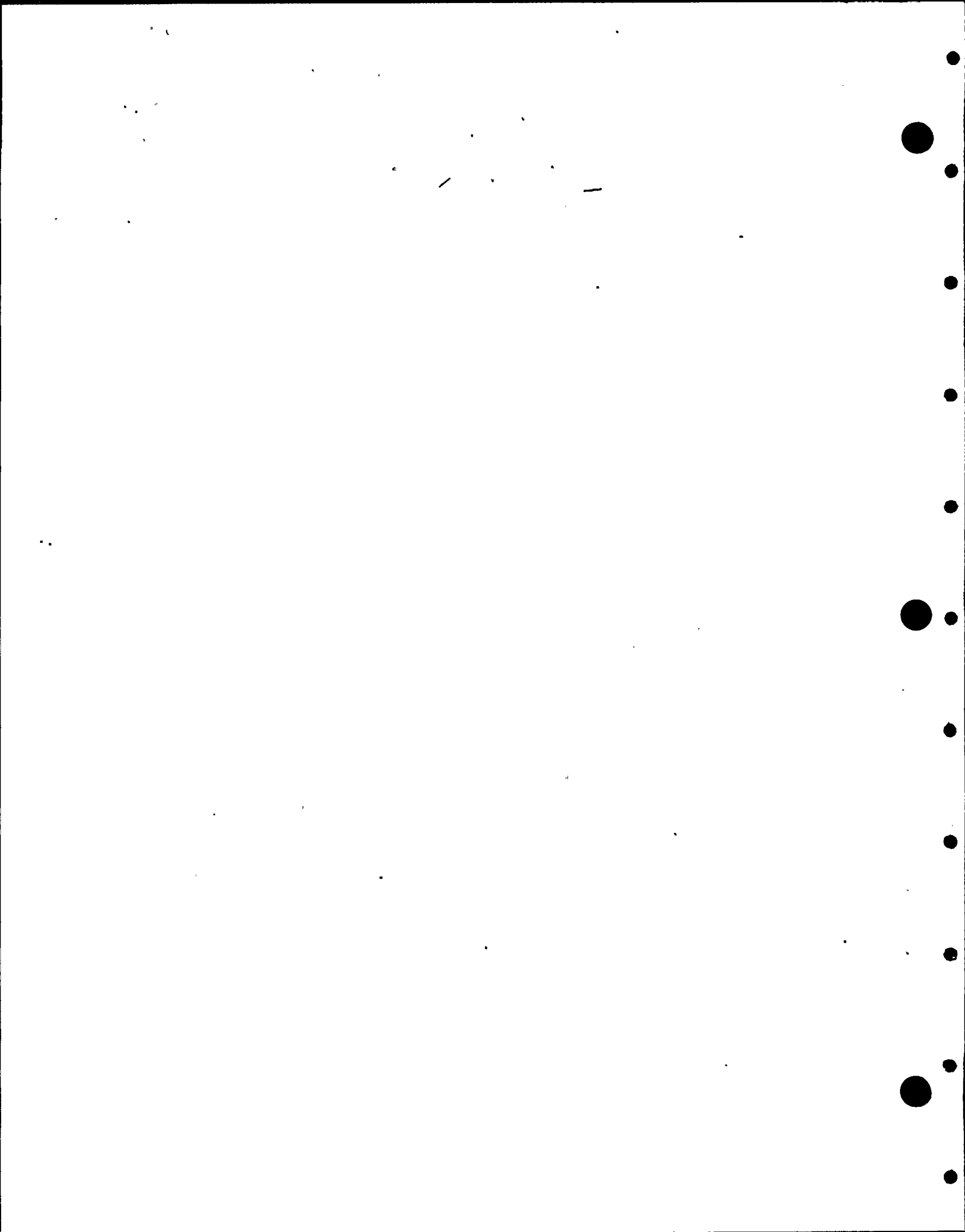
Factory Mutual Systems

Date 2/25, 1994
Signed Will P. Gilla Commissions MA 1455
(Inspector) (Nat'l. Bd., State, Prov. and No.)

PLAN No. 2-1018

Repair Sup^s
7/15/94

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





CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

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

Q.C.-44A

DATA REPORT
Safety and Safety Relief Valves

1. Manufactured By Crosby Valve & Gage Co., 43 Kendrick St., Wrentham, Mass. 02093
Name and Address
- Model No. HB-65-BP-FN Order No. N-105286 Contract Date 6/28/71
General Electric Company
2. Manufactured For San Jose, California Order No. 205-AD148
Name and Address
3. Owner Northern Indiana Public Service Co., Bailly Generating Station Nuclear I,
Name and Address Baileytown, Indiana
4. Location of Plant Baileytown, Indiana.
5. Valve Identification MPL #B-22-F013 Serial No. N56000-01-0038 Drawing No. H-56000 Rev. C
Type Safety Relief Orifice Size R Pipe Size - Inlet 6 Outlet 10
Safety, Safety Relief, Pilot, Power Actuated Inch Inch Inch Inch
6. Set Pressure (PSIG) 1175 575° F
Rated Temperature
Stamped Capacity 883950 Lbs. Hr. 3 % Overpressure - Blowdown 5%
Sat. Steam ~~XXXXX~~
- Hydrostatic Test (PSIG) Inlet 2370 Complete Valve 825

7. The material, design, construction and workmanship comply with ASME Code, Section III.
Class 1 Edition 1971 Addenda Date Summer 1972
I or II
Pressure Containing or Pressure Retaining Components

	Serial No. Identification	Material Specification Including Type or Grade
a. XXXXX Forgings		
Body	<u>N90118-32-0009</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Bonnet XXXXX	<u>N89717-32-0022</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
b. Bar Stock and Forgings		
XXXXX Disc Insert	<u>N89715-32-0018</u>	<u>ASTM A-461-65 Type 630</u> <u>ASTM A-182-71 F316</u> <u>ASME SA-182 F316</u>
Nozzle	<u>N89713-32-0028</u>	<u>AMS 5662 B</u>
Disc Holder	<u>N89714-32-0038</u>	<u>ASTM A-105-71 Gr. II</u> <u>ASME SA-105 Gr. II</u>
Spring Washers	Top <u>N89724-32-0038</u> Bottom <u>N89723-32-0023</u>	<u>ASTM A-193-71 Gr. B6</u> <u>ASME SA-193 Gr. B6</u>
Adjusting XXXXX Bolt	<u>N89726-32-0015</u>	<u>ASTM A-564-72 Type 630</u>
Spindle Point	<u>N89720-32-0044</u>	



3-3-75

	Serial No. or Identification	Material Specification Including Type or Grade
c. Spring	<u>NX2689-0043</u>	<u>ASTM A-304-66 Gr. 4161H</u>
d. Bolting	_____	_____
e. XXXXXXXXXXXXXXXXXXXXXXXXXXXX		
Inlet Stud	<u>N89727-0445 thru 0456</u>	<u>ASTM A-193-71 Gr. B7 ASME SA-193 Gr. B7</u>
Inlet Stud Nut	<u>N89728-0449 thru 0460</u>	<u>ASTM A-194-71 Cl. 2H ASME SA-194 Cl. 2H</u>
Bonnet Stud	<u>N89718-0449 thru 0460</u>	<u>ASTM A-193-71 Gr. B7 ASME SA-193 Gr. B7</u>
Bonnet Stud Nut	<u>N89719-0451 thru 0462</u>	<u>ASTM A-194-71 Cl. 2H ASME SA-194 Cl. 2H</u>

OTHER PARTS

Spindle Ball N89721-0044 Stellite 6

BARS & FORGINGS

Thrust Bearing Adapter N89725-32-0033 ASTM A-193-71 Gr. B6
ASME SA-193 Gr. B6

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

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

Certificate of Authorization No. 331 expires November 9, 1974

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Mass. and employed by Mutual Boiler & Machinery Insurance Co., Waltham, Mass. have inspected the equipment described in this Data Report on October 31 1973 and state that to the best of my knowledge and belief, the Manufacturer has constructed this equipment in accordance with the applicable Subsections of ASME Section III.

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

*Factory Mutual Group of Insurance Co.
 Date October 31 19 73

[Signature] Commissions N.B. 6067, Mass. 1090
 (Inspector) National Board, State, Province and No.)



3-3-75



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

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Main Steam (MS) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/15/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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-RV-2C	Crosby	N63790-00-0122	N/A	N/A	1980	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed:** Replaced disc insert and nozzle for main steam relief valve MS-RV-2C, Serial No N63790-00-0122. The replacement work was performed as follows
- 1) Removed existing disc insert and nozzle from the valve
 - 2) Installed new disc insert and nozzle in the valve
 - 3) Reinstalled the valve
 - 4) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 1021/6.7 Psig Test Temperature: 200.7/80.2° F
 Component Design Pressure: 1250/500 Psig Temperature: 575/470° F

9. Remarks: 1) Nominal operating pressure test on relief valve inlet flanged joint - test pressure of 1021 Psig and test temperature of 200.7° F
 2) Pneumatic test on relief valve outlet joint, body to bonnet joint, nozzle ring and adjusting ring set screw joints - test pressure of 6.7 Psig and test temperature of 80.2° F
 3) Component design pressure and temperature - 1250 Psig at 575° F for relief valve inlet piping and 500 Psig at 470° F for relief valve outlet piping

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. Anon
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4-28-94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Hoggan Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) *Date:* 7/5/94
Address: 3000 George Washington Way, Richland, Washington *Sheet:* 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) *Unit:* WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

<i>Name Of Component</i>	<i>Name Of Manufacturer</i>	<i>Manufacturer's Serial No</i>	<i>National Board No</i>	<i>Other I.D.</i>	<i>Year Built</i>	<i>Repaired, Replaced Or Replacement</i>	<i>ASME Code Stamped (Yes Or No) Code Class</i>
RHR-V-46A	Anchor Darling	2N1052	N/A	N/A	1977	Replacement	Yes, Code Class 2

7. **Description Of Work Performed:** Deactivated valve RHR-V-46A by removing valve internals. The work was performed as follows
- 1) Disassembled valve
 - 2) Removed valve disc and other valve internals
 - 3) Reassembled valve
 - 4) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 140 Psig Test Temperature: 68.8° F
 Component Design Pressure: 470 Psig Temperature: 700° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By RAM
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/5/94 Date 7-6-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-5-94 to 6-22-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan V. Goggin Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/6/94



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

- 1. Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/22/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	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(19)-1	WPPSS	RCIC(19)-1-P1	N/A	N/A	1983	Replacement	Yes, Code Class 2

- 7. Description Of Work Performed:** Replaced valve RCIC-V-28. The replacement work was performed as follows
- 1) Removed existing valve
 - 2) Installed new valve
 - 3) Made required welds
 - 4) Performed PT examination on the final socket welds. PT examination results acceptable
 - 5) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test



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

8 Tests Conducted: Hydrostatic [X] Pneumatic [] Nominal Operating Pressure [] Other [] None
Test Pressure: 188 Psig Test Temperature: 76.2° F
Component Design Pressure: 150 Psig Temperature: 267° F

9. Remarks: See attached NPV-1 Code Data Report for the new valve RCIC-V-28, Serial No AP766

CERTIFICATE OF COMPLIANCE

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

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

Prepared By [Signature] Signed By [Signature]
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
Date 6/22/94 Date 6-23-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-94 to 6-24-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 9556 W NBZ
Inspector's Signature National Board, State, and Endorsements
Date 6-24-94

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

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

- 1. Manufactured by Rockwell International, P.O. Box 501, Sulphur Springs, Texas 75482
(Name and Address of Manufacturer)
- 2. Manufactured for Tennessee Valley Authority, 400 Commerce Ave., Knoxville, TN 37902
(Name and Address of Purchaser or Owner)
- 3. Location of Installation Hartsville Nuclear Plant A, Unit 2, Hartsville, TN
(Name and Address)
- 4. Pump or Valve Check Valve Nominal Inlet Size 1 1/2 Outlet Size 1 1/2
(inch) (inch)

(a) Model No. Series No. or Type	(b) Manufacturers' Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Std. No.	(g) Year Built
(1) 838YT2	AP766 ✓	NA	D-31605171-A6	2	NA	1979
(2)	AP767 ✓					
(3)	AP768 ✓					
(4)	AP769 ✓					
(5)	AP770 ✓					
(6) 838YT2	AP771 ✓	NA	D-31605171-A6	2	NA	1979
(7)						
(8)						
(9)						
(10)						

- 5. Rockwell International Assembly Lot Number #2663 Qty. 6
(Brief description of service for which equipment was designed)
Corrected drawing rev. from 4 to 6

- 6. Design Conditions 940 psi 700 °F or Valve Pressure Class 600 (1)
(Pressure) (Temperature)
- 7. Cold Working Pressure 1440 psi at 100°F.
- 8. Pressure Retaining Pieces RCIC-V-28, S/N AP766

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
NA			<u>Republic Supp</u>
			<u>6/22/79</u>
(b) Forgings			
Bodies 9M433N	SA105	Texas Forge	Republic Heat 6078630
Covers 9M289N	SA105	Texas Forge	Amco Heat 83660

(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.

(3/77) This form (E00037) may be obtained from the Order Dept., ASME, 345 E. 47 St., New York, N.Y. 10017

2 1 6 9 1 0 6 1 9 0 9

11/10/83

BECHTEL
429

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting			
Cap screws F41	SA193GRB7	Texas Bolt	Republic Heat 6063816
(d) Other Parts			
Disks F2975	SA182GRF11	Coulter	Timken Heat 86309

9. Hydrostatic test 2150 psi.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, Edition 1974
 Addenda Summer 1976, Code Case No. N-154 (1791), Date 12/15/79
 Signed Rockwell International by William J. Vasquez
 Our ASME Certificate of Authorization No. N-1814 to use the N symbol expires 8/12/1980
(Date) (Manufacturer) (IN) (NPV) (Date)

CERTIFICATION OF DESIGN

Design information on file at Rockwell International, Sulphur Springs, Texas
 Stress analysis report (Class 1 only) on file at Not Applicable
 Design specifications certified by (i) Alex Walsehko
 PE State CA Reg. No. G22,109
 Stress analysis certified by (ii) David H. Therneau
 PE State TX Reg. No. 3C681
 (i) 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 Texas and employed by Ambermens Mutual Casualty of Long Grove, IL 60049 have inspected the pump, or valve, described in this Data Report on 12-17 1979 and state that to the best of my knowledge and belief, the Manufacturer 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 Dec 19 1979
Don Jones Commissions Texas 994
(Inspector) (IN) Bd., State, Prov. and No.

21649 200 RECUTE 229



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

1. Owner: Washington Public Power Supply System (WPPSS)

Address: 3000 George Washington Way, Richland, Washington

Date: 7/5/94

Sheet: 1 of 1

2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)

Address: Hanford Reservation, Benton County, Washington

Unit: WNP-2

3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA

(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)

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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	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-V-4B	Conax	N/A	90	N/A	1975	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced parts for valve SLC-V-4B. The replacement work was performed as follows

- 1) Removed existing trigger body assembly from the valve
- 2) Installed new trigger body assembly in the valve
- 3) Removed existing inlet fitting from the valve
- 4) Installed new inlet fitting in the valve
- 5) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 1150/1200 to 1300 Psig Test Temperature: 81.6/79.2° F
 Component Design Pressure: 1400 Psig Temperature: 150° F

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

Valve Part	Serial No
Trigger body assembly	4210
Inlet fitting	4212

- 2) Nominal operating pressure test on the down stream side of the valve (RPV Side) - test pressure of 1150 Psig and test temperature of 81.6° F
- 3) Nominal operating pressure test on the up stream side of the valve (SLC-P-1B Side) - test pressure of 1200 to 1300 Psig and test temperature of 79.2° 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 R. T. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/5/94 Date 7-6-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4-15-94 to 7-2-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Jim Vaggart Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/6/94

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

Quail Supply
6/30/94
Pg 1 of 1

1. Manufactured and certified by Conax Buffalo Corporation, 2300 Walden Ave., Cheektowaga, NY 14225
(name and address of certificate holder)
2. Manufactured for Washington Public Power Supply, Richland, WA
(name and address of purchaser)
3. Location of installation WNP-2, Richland, WA
(name and address)
4. Type N20000, Rev. F SA479 304SST 75 KSI N/A 1993
(drawing no) (matl spec no) (tensile strength) (CRN) (year built)
5. ASME Code, Section III: 77 S77 1 N/A
(edition) (addenda) (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. NB2121 (b) is applicable to ram.
* Pressure tested at 2800 psig for 10 minutes.

8. Nom. thickness (in.) *See Remarks 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
(1) 4209	4209
(2) 4210	4210
(3)	
(4)	
(5)	
(6) SLC-V-4B, TRIGGER SN 4210	
(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 Number 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 1400 psi Temp. 150 °F. Hydro. test pressure *See Remarks at temp. °F.
(when applicable)

*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 2 and 3 on this data report is included on each sheet, (3) each

FORM N-2 (back)

CERTIFICATE OF DESIGN

Design specifications certified by Clyde T. Nieh P. E. state CA Reg. no. 15587

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

CERTIFICATE OF SHOP COMPLIANCE

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

ASME Certificate of Authorization no. N-1850 Expires September 2, 1995

Date 3/17/93 Name Conax Buffalo Corporation Signed [Signature]
(NPT Certificate Holder) (authorized representative)
Richard E. Dulski, QA Manager

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 H.S.B.I. & I. Co. of Hartford, CT have inspected these items described in this data report on MAR 27, 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. 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 3/27/93 Signed [Signature] Commissions NB 9153 A-1
(Authorized Inspector) (Nat'l Bd (incl endorsements) state or prov and no)

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

Quail *Sup 3*
6/3-194
Pg 1 of 1

1. Manufactured and certified by Conax Buffalo Corporation, 2300 Walden Ave., Cheektowaga, NY 14225
(name and address of certificate holder)

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

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

4. Type N38017, Rev. F SA479 304SST 75 KSI N/A 1993
(drawing no) (natl spec no) (tensile strength) (CRN) (year built)

5. ASME Code, Section III: 77 S77 1 N/A
(edition) (addenda) (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 tested at 2800 psig for 10 minutes.

8. Nom. thickness (in.) .040 Min. design thickness (in.) .031 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) 4211	4211	(26)	
(2) 4212	4212	(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7) SLC-Y-4B, INLET FITTING S/N	4212	(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

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

*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 2 and 3 on this data report is included on each sheet, (3) each

FORM N-2 (back)

CERTIFICATE OF DESIGN

Design specifications certified by Clyde T. Nieh P. E. state CA Reg. no. 15587

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

CERTIFICATE OF SHOP COMPLIANCE

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

ASME Certificate of Authorization no. N-1850 Expires September 2, 1995

Date 3/1/93 Name Conax Buffalo Corporation Signed [Signature]
(NPT Certificate Holder) (Authorized Representative)
Richard E. Dulski, QA Manager

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 H.S.B.I. & I. Co.

of Hartford, CT have inspected these items described in this data report on MAR 23, 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. 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, property damage or loss of any kind arising from or connected with this inspection.

Date 3/23/93 Signed [Signature] Commissions N-13 9153 911
(Authorized Inspector) (Nat'l Bd (incl endorsements) 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:** Washington Public Power Supply System (WPPSS) **Date:** 6/25/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Bechtel Construction, Inc, PO Box 600, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: C20069
4. Identification Of System: Containment Electrical Penetration No X-104A
5. (a) Applicable Construction Code: ASME Section III, Code Class MC, 1971 Edition with Summer 1972 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Containment Electrical Penetration No X-104A	PDM	Containment Vessel	790	N/A	1982	Replacement	Yes, Code Class MC

- 7. Description Of Work Performed:** Installed blank (plug) module for Electrical Penetration No X-104A, Position No 1. The replacement work was performed as follows
- 1) Removed the existing module from Electrical Penetration No X-104A, Position No 1
 - 2) Installed new blank (plug) module in Electrical Penetration No X-104A, Position No 1
 - 3) Performed pressure test on the Electrical Penetration No X-104A to blank (plug) module "O" ring joint - One (1) outboard joint for Position No 1 to confirm pressure boundary integrity. 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 LLRT
 Test Pressure: 38.9 Psig Test Temperature: 79.6° F
 Component Design Pressure: 45 Psig Temperature: 340° F

9. Remarks: See attached N-2 Code Data Report for the Electrical Penetration assembly Serial No 780703, National Board No W16800

Notes -

- 1) The new blank (plug) module for WNP-2 Electrical Penetration X-104A was from WNP-1 ASME NPT Code Stamped Electrical Penetration assembly Serial No 780703, National Board No W16800
- 2) Component design pressure of 45 Psig and design temperature of 340° F is based on the N-1 Code Data Report issued by PDM for the Containment Vessel

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Amos
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/27/94 Date 7-9-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-16-94 to 6-28-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Vazgouth Commissions 9556 W NBZ
 Inspector's Signature National Board, State, and Endorsements
 Date 7/5/94

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

As required by the Provisions of the ASME Code Rules

PLAN NO. 2-100-1

Quaid Swp's

6/25/74

1. (a) Manufactured by Westinghouse Electric Corp., Westinghouse Circle, Horseheads, NY 14845
(Name and address of Manufacturer of part)

(b) Manufactured for Washington Public Power Supply System, Hanford, Wash.
(Name and address of Manufacturer of completed nuclear component)

2. Identification-Manufacturer's Serial No. of Part 780703 Nat'l Bd. No. W16800

(a) Constructed According to Drawing No. E40106 Drawing Prepared by R. L. Korner

(b) Description of Part Inspected Electrical Penetration Assembly

(c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 75, Case No. N/A Class M.C.

3. Remarks: This device when welded to the containment nozzle provides 3 sockets
(Brief description of service for which component was designed)
for the penetration modules. Together these parts complete the pressure
boundary of the containment.

Quaid
5/27/74

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 25, 19 78 Signed Westinghouse Elec. Corp. By J. B. Kessing
(Manufacturer)

Certificate of Authorization Expires August 4, 1978 Certificate of Authorization No. 1190

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at Washington Public Power Supply System, Hanford, Wash.
Stress analysis report on file at Westinghouse Electric Corp., Westinghouse Circle, Horseheads, NY
Design specifications certified by Burton Hemroff Prof. Eng. State Wash. Reg. No. 15344
Stress analysis report certified by Michael Yonko Prof. Eng. State N.Y. Reg. No. 44063

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 New York and employed by Lumbermens Mutual Casualty Co. of Long Grove, Illinois

have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on July 27, 19 78, 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 27, 19 78

A. E. Warner Commissions NB 6786 PAWC 1907
Inspector's Signature National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 4W" x 11", (2) information in items 1-2 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

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

4. Shell: Material SA333 ^{Gr 0} T.S. 60,000 Nominal Thickness 406 in. Corrosion Allowance _____ in. Dia. _____ ft. 12 in. Length _____ ft. 7.5 in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long Seamless H.T.¹ _____ R.T. _____ Efficiency _____ %

6. Heads: Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____
 (a) Material SA240-Type 304 T.S. 75000 (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) <u>END</u>	<u>1.5</u>						<u>12.2"</u>	
(b) <u>NONE</u>								

If removable, bolts used SA193-87 1/2-13 6 Req. Other fastening SA193-87 5/8-11-1 Req.
(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 INTERNAL 52 psi at _____ 284 °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 Attached
<u>INLET</u>	<u>1</u>	<u>1/4</u>		<u>SA213</u>	<u>TYPE 304</u>		<u>WELDED</u>

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)

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:** Washington Public Power Supply System (WPPSS) **Date:** 7/27/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Residual Heat Removal (RHR) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-8	Velan	002	N/A	N/A	1978	Repair	Yes, Code Class 1

7. Description Of Work Performed: Drilled hole in the wedge for valve RHR-V-8. Machined/ground/lapped the hardfaced seating surfaces of the valve wedge. The work was performed as follows

Drilled Hole

- 1) Drilled hole in the reactor side of the valve wedge

Valve Wedge - Upstream Side

- 1) Unacceptable linear indications were observed during visual examination on the upstream side of the hardfaced seating surfaces of the wedge
- 2) Unacceptable linear indications observed during visual examination were dispositioned by fracture mechanics using ASME Section XI, Article IWB-3600 requirements

Valve Wedge - Downstream Side

- 1) Unacceptable linear indications were observed during visual examination on the downstream side of the hardfaced seating surfaces of the wedge
- 2) Machined/ground/lapped the hardfaced seating surfaces of the valve wedge
- 3) Performed PT examination on the final hardfaced seating surfaces. PT examination results not acceptable
- 4) Unacceptable linear indications were observed during PT examination on the final hardfaced seating surfaces. The linear indications were dispositioned by fracture mechanics using ASME Section XI, Article IWB-3600 requirements

Pressure Test

- 1) Performed pressure test to confirm pressure boundary integrity of the valve body to bonnet bolted 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 None
 Test Pressure: 180 Psig Test Temperature: 147.8° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this 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 Atma
 Kuldip Singh Materials And Inspection Manager, Materials And Inspection
 Date 7/27/94 Date 7-27-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4-28-94 to 7-27-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Koyan Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-27-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/25/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

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

- 7. Description Of Work Performed:** Repaired by welding pits on the inside (ID) surfaces of the piping (spacer ring, flange and elbow) down stream side of valve SW-V-2A. The repair work was performed as follows
- 1) Weld repaired (weld built up) pits on the inside (ID) surfaces of the piping flange and elbow
 - 2) Ground/blended the weld repaired areas on the inside (ID) surfaces of the piping flange and elbow flush with the adjacent base metal to match the contour of the inside surfaces
 - 3) Performed MT examination on the final ground/blended surfaces of the piping flange and elbow. MT examination results acceptable
 - 4) Performed RT examination on the final ground/blended surfaces of the piping flange and elbow. RT examination results were evaluated to be unacceptable
 - 5) Removed unacceptable RT indications by grinding
 - 6) Weld repaired (weld built up) the ground out areas on the inside (ID) surfaces of the piping flange and elbow
 - 7) Ground/blended the weld repaired areas on the inside (ID) surfaces of the piping flange and elbow flush with the adjacent base metal to match the contour of the inside surfaces
 - 8) Performed MT examination on the final ground/blended surfaces of the piping flange and elbow. MT examination results acceptable
 - 9) Performed RT examination on the final ground/blended surfaces of the piping flange and elbow. RT examination results were acceptable
 - 10) Weld repaired (weld built up) pits on the inside (ID) surfaces of the spacer ring
 - 11) Ground/blended the weld repaired areas on the inside (ID) surfaces of the spacer ring flush with the adjacent base metal to match the contour of the inside surfaces
 - 12) Performed MT examination on the final ground/blended surfaces of the spacer ring. MT examination results acceptable
 - 13) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 215 Psig Test Temperature: 63° F
 Component Design Pressure: 309 Psig Temperature: 150° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By RAT Moen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/25/94 Date 7-25-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-8-94 to 7-26-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dm Abegauth Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-26-94



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

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Service Water (SW) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/5/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|

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

- 7. Description Of Work Performed:** Repaired by weld depositing on the inside (ID) surfaces of the piping (flange and elbow) down stream side of valve SW-V-2A. The repair work was performed as follows
- 1) Performed weld deposit on the inside (ID) surfaces of the piping flange
 - 2) Prepped the weld deposited areas on the inside (ID) surfaces of the piping flange
 - 3) Performed weld deposit on the inside (ID) surfaces of the piping elbow
 - 4) Prepped the weld deposited areas on the inside (ID) surfaces of the piping elbow
 - 5) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 215 Psig Test Temperature: 63° F
 Component Design Pressure: 309 Psig Temperature: 150° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By RA Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/5/94 Date 7-6-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-10-94 to 6-22-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan O'Garra Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/6/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/5/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Residual Heat Removal (RHR) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 3, 1977 Edition with Winter 1977 Addenda, Code Case: None
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-2A	Ametek	79283	598	N/A	1980	Replacement	Yes, Code Class 3

7. **Description Of Work Performed:** Replaced bolting material for shell side of seal cooler RHR-HX-2A. The replacement work was performed as follows
- 1) Installed new nuts for the shell side of seal cooler RHR-HX-2A
 - 2) Installed new studs for the shell side of seal cooler RHR-HX-2A
 - 3) Performed pressure test to confirm pressure boundary integrity. 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: 140 Psig Test Temperature: 68.8° F
 Component Design Pressure: 300 Psig Temperature: 200° 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 R. A. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/5/94 Date 7-5-94

CERTIFICATE OF 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 ARKWICIA MUTUAL INS. (FACTUM MUTUAL ENGINEERING ASSOC) OF NORWICH, MASS., have inspected the components described in this Owner's Report during the period 5/12/94 to 6/22/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Vignaroli Commissions 956W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/5/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/28/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-73A	Borg Warner	75606	N/A	N/A	1982	Repair	Yes, Code Class 2

7. Description Of Work Performed: Made body to bonnet seal weld for valve RHR-V-73A. The work was performed as follows

- 1) Cut valve bonnet to yoke tack welds
- 2) Cut valve body to bonnet seal weld
- 3) Removed valve internals for troubleshooting
- 4) Machined the valve disc seating surface to remove scratches
- 5) Performed PT examination on the final machined valve disc seating surface. PT examination results acceptable
- 6) Prepped cut/ground areas on the valve body and the bonnet
- 7) Reinstalled valve internals and the bonnet
- 8) Made valve bonnet to yoke tack welds
- 9) Made valve body to bonnet seal weld
- 10) Performed PT examination on the final seal weld. PT examination results acceptable
- 11) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 140 Psig Test Temperature: 68.8° F
 Component Design Pressure: 1440 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 R. Amos
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/28/94 Date 7-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-12-94 to 6-22-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

D. V. Goggin Commissions 9550 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/5/94



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

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 1. Owner: Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington | Date: 7/15/94
Sheet: 1 of 1 |
| 2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington | Unit: WNP-2 |
| 3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS) | |
| 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 | |
| 6. Identification Of Components Repaired Or Replaced And Replacement Components | |

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B22-G001B	WPPSS	B22-G001B-P1	N/A	N/A	1983	Repair	Yes, Code Class 1

- 7. Description Of Work Performed:** Removed gouges in the "U" groove seal area of the piping flange for relief valve MS-RV-2B. The work was performed as follows
- 1) Machined to remove gouges in the "U" groove seal area of the piping flange
 - 2) Machined the raised face of the piping flange to maintain the "U" groove depth
 - 4) Surface finished the "U" groove seal area of the piping flange
 - 5) Surface finished the raised face of the piping flange
 - 6) Performed PT examination on the final surfaces. PT examination results acceptable
 - 7) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 1021 Psig Test Temperature: 200.7° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this 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 R. Amore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-16-94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be 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 9536 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94



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

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 1. Owner: Washington Public Power Supply System (WPPSS)
<i>Address:</i> 3000 George Washington Way, Richland, Washington | Date: 7/15/94
Sheet: 1 of 1 |
| 2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
<i>Address:</i> Hanford Reservation, Benton County, Washington | Unit: WNP-2 |
| 3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS) | |
| 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 | |
| 6. Identification Of Components Repaired Or Replaced And Replacement Components | |

Name Of Component	Name Of Manufacturer	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	WPPSS	B22-G001D-P1	N/A	N/A	1983	Repair	Yes, Code Class 1

- 7. Description Of Work Performed:** Removed gouges in the "U" groove seal area of the piping flange for relief valve MS-FV-2D. The work was performed as follows
- 1) Machined to remove gouges in the "U" groove seal area of the piping flange
 - 2) Machined the raised face of the piping flange to maintain the "U" groove depth
 - 4) Surface finished the "U" groove seal area of the piping flange
 - 5) Surface finished the raised face of the piping flange
 - 6) Performed PT examination on the final surfaces. PT examination results acceptable
 - 7) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 1021 Psig Test Temperature: 200.7° F
 Component Design Pressure: 1250 Psig Temperature: 575° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this 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 R. Man
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/15/94 Date 7-14-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-16-94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Wagoner Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-15-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS)

Address: 3000 George Washington Way, Richland, Washington

Date: 7/7/94

Sheet: 1 of 1

2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)

Address: Hanford Reservation, Benton County, Washington

Unit: WNP-2

3. (a) **Work Performed By:** Bechtel Construction, Inc, PO Box 600, Richland, WA

(b) **Repair Organization P.O. No, Job No, etc.:** C20069

4. **Identification Of System:** Containment Electrical Penetration No X-101A

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

(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308

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

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Containment Electrical Penetration No X-101A	PDM	Containment Vessel	790	N/A	1982	Replacement	Yes, Code Class MC

7. **Description Of Work Performed:** Installed module for Electrical Penetration No X-101A, Position No 1. The replacement work was performed as follows

- 1) Removed the existing module from Electrical Penetration No X-101A, Position No 1
- 2) Installed new module in Electrical Penetration No X-101A, Position No 1
- 3) Performed pressure test on the Electrical Penetration No X-101A to modules "O" ring joint - One (1) outboard joint for Position No 1 to confirm pressure boundary integrity. 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 [X] LLRT
Test Pressure: 38.8 Psig Test Temperature: 80.8° F
Component Design Pressure: 45 Psig Temperature: 340° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh - Materials And Inspection Signed By R. Moore Manager, Materials And Inspection
Date 7/7/94 Date 7-7-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-16-94 to 7-11-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Inspector's Signature Date 7-11-94 Commissions 9556W NBSI National Board, State, and Endorsements



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

- 1. Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/22/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Bechtel Construction, Inc, PO Box 600, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: C20069
4. Identification Of System: Containment Electrical Penetration No X-105B
5. (a) Applicable Construction Code: ASME Section III, Code Class MC, 1971 Edition with Summer 1972 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Containment Electrical Penetration No X-105B	PDM	Containment Vessel	790	N/A	1982	Replacement	Yes, Code Class MC

- 7. Description Of Work Performed:** Replaced module for Electrical Penetration No X-105B, Position No 1. The replacement work was performed as follows
- 1) Removed the existing module from Electrical Penetration No X-105B, Position No 1
 - 2) Installed new module in Electrical Penetration No X-105B, Position No 1
 - 3) Performed pressure test on the Electrical Penetration No X-105B to module "O" ring joint - One (1) outboard joint for Position No 1 to confirm pressure boundary integrity. 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 LLRT
 Test Pressure: 38.7 Psig Test Temperature: 73.4° F
 Component Design Pressure: 45 Psig Temperature: 340° F

9. Remarks: See attached N-2 Code Data Report for the Electrical Penetration assembly Serial No 791101, National Board No W16978

Notes -

- 1) The new module for WNP-2 Electrical Penetration X-105B was from WNP-1 ASME NPT Code Stamped Electrical Penetration assembly Serial No 791101, National Board No W16978
- 2) Component design pressure of 45 Psig and design temperature of 340° F is based on the N-1 Code Data Report issued by PDM for the Containment Vessel

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Amce
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/22/94 Date 6-23-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-12-94 to 6-24-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Vlaygath Commissions 9556 W NBZ
 Inspector's Signature National Board, State, and Endorsements
 Date 6-24-94

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

As required by the Provisions of the ASME Code Rules

Quidip Ruel
6/20/74

1. (a) Manufactured by Westinghouse Electric Corp., Westinghouse Circle, Horseheads, NY 14845
(Name and address of Manufacturer of part)

(b) Manufactured for Washington Public Power Supply System, Hanford, Wash.
(Name and address of Manufacturer of completed nuclear component)

2. Identification-Manufacturer's Serial No. of Part 791107 Nat'l Bd. No. W16978

(a) Constructed According to Drawing No. E40106 Drawing Prepared by R. L. Korner

(b) Description of Part Inspected Electrical Penetration Assembly

(c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 75, Case No. N/A Class H.C. 1

3. Remarks: This device when welded to the containment nozzle provides 3 sockets
(Brief description of service for which component was designed)
for the penetration modules. Together these parts complete the pressure
boundary of the containment. This device has been pneumatically pressure
tested in conformance with design requirements.

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.)

Dec. 10, 19 79 Signed Westinghouse Elec. Corp. By J. B. Kessing
(Manufacturer)

Certificate of Authorization Expires August 4, 1981 Certificate of Authorization No. 1190

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at Washington Public Power Supply System, Hanford, Wash.
Stress analysis report on file at Westinghouse Electric Corp., Westinghouse Circle, Horseheads, NY
Design specifications certified by Burton Nemroff Prof. Eng. State Wash. Reg. No. 15344
Stress analysis report certified by Michael Yonko Prof. Eng. State N.Y. Reg. No. 44063

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 New York and employed by Lumbermens Mutual Casualty Co. of Long Grove, Illinois have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on December 10, 1979, 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 10, 1979

S. A. Thomas
Inspector's Signature S. A. Thomas

Commissions HB 3605 National Board, State, Province and No.

DOCUMENT REVIEWED
DEC 14 79 G.J. WESTON
By: U.E. & C.

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

S/N 791101

Kulap 6/1/94

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

4. Shell: Material SA333 T.S. 60,000 Nominal Thickness .406 Corrosion Allowance in. Dis. ft. 12 in. Length 0 ft. 7.5 in.

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

6. Heads: (a) Material SA240-Type 304 T.S. 75000 (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.)

If removable, bolts used SA193-B7 1/2-13 6 Req. Other fastening SA193-B7 5/8-11 - 1 Req.

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

8. Design pressure INTERNAL 52 psi at 284 deg F Drop Weight Charpy Impact at temp. of

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary, Material Dis. Thickness in. Attachment (Welded, Bolted)

Floating, Material Dis. 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. Dis. ft. in. Length ft. in.

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 at temp. of

14. Design pressure psi at deg F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlet: Number Size Location

16. Nozzles

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

INLET

1

1/4

SA213

TYPE 304

WELDED

DOCUMENT REVIEWED

J.C. WEST

J.C. & C.

17. Inspection Manholes, No. Size Location Openings: Handholes, No. Size Location Threaded, No. Size Location

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

1 If Postweld Heat-Treatment



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 8/4/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Bechtel Construction Company, PO Box 600, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: C30236
4. **Identification Of System:** Process Instrumentation (PI)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-64)-9	JCI	PI(1)-ST-(IR-64)-9	N/A	N/A	1983	Repair	Yes, Code Class 2

7. **Description Of Work Performed:** Modified instrument tubing for line PI(1)-ST-(IR-64)-9. The work was performed as follows
- 1) Removed section of the existing tubing material
 - 2) Installed new tubing material
 - 3) Made required socket welds
 - 4) Performed PT examination on the final socket welds. PT examination results acceptable



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By RXT Moore
 Kuldip Singh Materials And Inspection Manager, Materials And Inspection
 Date 8/3/94 Date 8-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-13-94 to 8-4-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Wozniak Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 8-4-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 8/4/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Bechtel Construction Company, PO Box 600, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** C30236
4. **Identification Of System:** Process Instrumentation (PI)
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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-X82b	JCI	PI(1)-4S-X82b	N/A	N/A	1983	Repair	Yes, Code Class 2

7. **Description Of Work Performed:** Rotated the existing valve PI-V-X82B2 in instrument line PI(1)-4S-X82b. The work was performed as follows
- 1) Cut/ground existing pipe to valve socket weld
 - 2) Rotated the existing valve
 - 3) Made required socket weld
 - 4) Performed PT examination on the final socket weld. PT examination results acceptable



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. T. Mice
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 8/3/94 Date 8-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-18-94 to 8-4-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Waggner Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 8-4-94



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

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Bechtel Construction Company, PO Box 600, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: C30236</p> <p>4. Identification Of System: Process Sample Radioactive (PSR) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 8/4/94</p> <p>Sheet: 1 of 1</p> <p>Unit: WNP-2</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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-X82d	JCI	PI(1)-4S-X82d	N/A	N/A	1983	Repair	Yes, Code Class 2

7. Description Of Work Performed: Rotated the existing valve PSR-V-X82-2 in instrument line PI(1)-4S-X82d. The work was performed as follows

- 1) Cut/ground existing pipe to valve socket welds
- 2) Rotated the existing valve
- 3) Made required socket welds
- 4) Performed PT examination on the final socket welds. PT examination results acceptable
- 5) Cut/ground existing support welds
- 6) Installed new tube steel for the support
- 7) Made required welds



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By R. J. McE...
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 8/3/94 Date 8.4.94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-18-94 to 8-4-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Vooght Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 8-4-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/1/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-FLX-1A2	Metal Bellows	010	N/A	N/A	1980	Repair	Yes, Code Class 3

7. Description Of Work Performed: Repaired weld between stainless steel bellow and carbon steel flange for SW-FLX-1A2. The repair work was performed as follows

- 1) Ground out the existing weld between stainless steel bellow and carbon steel flange
- 2) Prepped the surfaces for rewelding
- 3) Made required weld between stainless steel bellow and carbon steel flange
- 4) Performed PT examination on the final weld. PT examination results acceptable
- 5) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test



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

8 Tests Conducted: Hydrostatic [X] Pneumatic [] Nominal Operating Pressure [] Other [] None
Test Pressure: 332 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 [Signature] Signed By [Signature]
Kuldip Singh Materials And Inspection Manager, Materials And Inspection
Date 7/1/94 Date 7-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-19-94 to 7-1-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI
By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be 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 9536 W NBI
Inspector's Signature National Board, State, and Endorsements
Date 7-5-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/15/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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)-4CL1	WPPSS	RCIC(1)-4CL1-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced bolting material for the RPV head nozzle N-7 flanged joint. The replacement work was performed as follows

- 1) Removed existing studs and nuts for the flanged joint
- 2) Installed new studs and nuts for the flanged joint
- 3) Performed pressure test to confirm pressure boundary integrity. 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 None
Test Pressure: 1021 Psig Test Temperature: 200.7° F
Component Design Pressure: 1500 Psig Temperature: 570° 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 R. A. Mac
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
Date 7/15/94 Date 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-27-94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Hoegarty Commissions 9556W NBE
Inspector's Signature National Board, State, and Endorsements
Date 7-15-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/5/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-46B	Anchor Darling	2N1010	N/A	N/A	1977	Replacement	Yes, Code Class 2

7. **Description Of Work Performed:** Deactivated valve RHR-V-46B by removing valve internals. The work was performed as follows
- 1) Disassembled valve
 - 2) Removed valve disc and other valve internals
 - 3) Reassembled valve
 - 4) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 140 Psig Test Temperature: 66.2° F
 Component Design Pressure: 470 Psig Temperature: 700° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. A. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/5/94 Date 7-6-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-30-94 to 7-5-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/6/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/5/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-46C	Anchor Darling	2N943	N/A	N/A	1977	Replacement	Yes, Code Class 2

7. **Description Of Work Performed:** Deactivated valve RHR-V-46C by removing valve internals. The work was performed as follows
- 1) Disassembled valve
 - 2) Removed valve disc and other valve internals
 - 3) Reassembled valve
 - 4) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 300 Psig Test Temperature: 73.2° F
 Component Design Pressure: 470 Psig Temperature: 700° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not applicable

Certificate Of Authorization No.: Not applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By R. Anon
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/5/94 Date 7-6-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-30-94 to 6-20-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Hoggarth Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements

Date 7/6/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/1/84
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-FLX-1A1	Metal Bellows	009	N/A	N/A	1980	Repair	Yes, Code Class 3

7. **Description Of Work Performed:** Repaired weld between stainless steel bellow and carbon steel flange for SW-FLX-1A1. The repair work was performed as follows
- 1) Ground out the existing weld between stainless steel bellow and carbon steel flange
 - 2) Prepped the surfaces for rewelding
 - 3) Made required weld between stainless steel bellow and carbon steel flange
 - 4) Performed PT examination on the final weld. PT examination results acceptable
 - 5) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 332 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 Signed By R. A. Man
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/1/94 Date 7-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-20-94 to 7-1-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Kuyper Commissions 956W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/5/94



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

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 1. Owner: Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington | Date: 7/11/94
Sheet: 1 of 1 |
| 2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington | Unit: WNP-2 |
| 3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS) | |
| 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 | |
| 6. Identification Of Components Repaired Or Replaced And Replacement Components | |

Name Of Component	Name Of Manufacturer	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-FLX-2A1	Metal Bellows	013	N/A	N/A	1980	Repair	Yes, Code Class 3

- 7. Description Of Work Performed:** Repaired weld between stainless steel bellow and carbon steel flange for SW-FLX-2A1. The repair work was performed as follows
- 1) Ground out the existing weld between stainless steel bellow and carbon steel flange
 - 2) Prepped the surfaces for rewelding
 - 3) Made required weld between stainless steel bellow and carbon steel flange
 - 4) Performed PT examination on the final weld. PT examination results were unacceptable
 - 5) Removed unacceptable PT indications
 - 6) Weld repaired the cavity
 - 7) Performed PT examination on the final weld repaired area. PT examination results acceptable
 - 8) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 332 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 Signed By R. Anwar
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/11/94 Date 7-12-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-21-94 to 7-13-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hoggan Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-13-94



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

- 1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/11/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
- 2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
- 3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
- 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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-FLX-2A2	Metal Bellows	014	N/A	N/A	1980	Repair	Yes, Code Class 3

- 7. Description Of Work Performed:** Repaired weld between stainless steel bellow and carbon steel flange for SW-FLX-2A2. The repair work was performed as follows
- 1) Ground out the existing weld between stainless steel bellow and carbon steel flange
 - 2) Prepped the surfaces for rewelding
 - 3) Made required weld between stainless steel bellow and carbon steel flange
 - 4) Performed PT examination on the final weld, PT examination results acceptable
 - 5) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 332 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 Authorizatlon No.: Not applicable
 Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By R. Arora
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/11/94 Date 7-12-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-20-94 to 7-14-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hoyer Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements

Date 7-14-94



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

- 1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/22/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
- 2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
- 3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
- 4. **Identification Of System:** Containment Vacuum Breaker (CVB) 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CVB-V-1CD	Anderson Greenwood	VB 7892	N/A	N/A	1983	Replacement	Yes, Code Class 2

7. Description Of Work Performed: Replaced front and rear snubbers for Containment Vacuum Breaker (CVB) valve CVB-V-1CD. The replacement work was performed as follows

- 1) Removed existing front and rear snubbers from the valve
- 2) Installed new front and rear snubbers for the valve



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. A. Man
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/22/94 Date 6-23-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-25-94 to 6-24-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Wogant Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 6/24/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/25/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Bechtel Construction, Inc, PO Box 600, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** C20069
4. **Identification Of System:** Containment Electrical Penetration No X-105C
5. (a) **Applicable Construction Code:** ASME Section III, Code Class MC, 1971 Edition with Summer 1972 Addenda, Code Case: None
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Containment Electrical Penetration No X-105C	PDM	Containment Vessel	790	N/A	1982	Replacement	Yes, Code Class MC

7. Description Of Work Performed: Replaced module for Electrical Penetration No X-105C, Position No 3. The replacement work was performed as follows

- 1) Removed the existing module from Electrical Penetration No X-105C, Position No 3
- 2) Installed new module in Electrical Penetration No X-105C, Position No 3
- 3) Performed pressure test on the Electrical Penetration No X-105C to module "O" ring joint - One (1) outboard joint for Position No 3 to confirm pressure boundary integrity. Leakage was observed during the pressure test. Leakage 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 LLRT
 Test Pressure: 38.8 Psig Test Temperature: 80.6° F
 Component Design Pressure: 45 Psig Temperature: 340° F

9. Remarks: See attached N-2 Code Data Report for the Electrical Penetration assembly Serial No 791101, National Board No W16978

Notes -

- 1) The new module for WNP-2 Electrical Penetration X-105C was from WNP-1 ASME NPT Code Stamped Electrical Penetration assembly Serial No 791101, National Board No W16978
- 2) Component design pressure of 45 Psig and design temperature of 340° F is based on the N-1 Code Data Report issued by PDM for the Containment Vessel

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. A. Moen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/25/94 Date 7-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-7-94 to 6-28-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Waggart Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/5/94

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

As required by the Provisions of the ASME Code Rules

Quincy Sue
6/21/90

(a) Manufactured by Westinghouse Electric Corp., Westinghouse Circle, Horseheads, NY 14845
(Name and address of Manufacturer of part)

(b) Manufactured for Washington Public Power Supply System, Hanford, Wash.
(Name and address of Manufacturer of completed nuclear component)

2. Identification-Manufacturer's Serial No. of Part 791101? Nat'l Bd. No. W16978

(a) Constructed According to Drawing No. E40106 Drawing Prepared by R. L. Korner

(b) Description of Part Inspected Electrical Penetration Assembly

(c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 75, Case No. N/A Class. MC

3. Remarks: This device when welded to the containment nozzle provides 3 sockets for the penetration modules. Together these parts complete the pressure boundary of the containment. This device has been pneumatically pressure tested in conformance with design requirements.
(Brief description of service for which component was designed)

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

Date Dec. 10, 19 79 Signed Westinghouse Elec. Corp. By J. B. Kessing
(Manufacturer)

Certificate of Authorization Expires August 4, 1981 Certificate of Authorization No. 1190

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at Washington Public Power Supply System, Hanford, Wash.

Stress analysis report on file at Westinghouse Electric Corp., Westinghouse Circle, Horseheads, NY

Design specifications certified by Burton Nemroff Prof. Eng. State Wash. Reg. No. 15344

Stress analysis report certified by Michael Yonko Prof. Eng. State N.Y. Reg. No. 44063

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 New York and employed by Lumbermens Mutual Casualty Co. of Long Grove, Illinois have inspected the part of a pressure vessel described in this

Manufacturer's Partial Data Report on December 10, 19 79, 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 10, 19 79

S. A. Thomas
Inspector's Signature S. A. Thomas

Commissions HB 3605 National Board, State, Province and No.

DOCUMENT REVIEWED
By: G.J. WESTON
U.E. & C.

*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/N 791101

Ruedip Singh 6/1/94

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

4. Shell: Material SA333 T.S. 60,000 Nominal Thickness 406 Corrosion Allowance in. Dis. 12 in. Length 0 ft. 7.5 in.

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

6. Heads: (a) Material SA240-Type 304 T.S. 75000 (b) Material T.S. Girth H.T. R.T. No. of Courses

Table with 9 columns: Location, Thickness, Crown Radius, Knuckle Radius, Elliptical Ratio, Conical Apex Angle, Hemispherical Radius, Flat Diameter, Side to Proc. (Conv. or Conc.).

If removable, bolts used SA193-B7 1/2-13 6 Reg. Other fastening SA193-B7 5/8-11-1 Reg.

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

8. Design pressure INTERNAL 52 psi at 284 OF Drop Weight Charpy Impact at temp. of

Items 9 and 10 to be completed for tube sections

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

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. Dis. ft. in. Length ft. in.

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

13. Heads (a) Material T.S. (b) Material T.S. Girth H.T. R.T. No. of Courses

Table with 9 columns: Location, Thickness, Crown Radius, Knuckle Radius, Elliptical Ratio, Conical Apex Angle, Hemispherical Radius, Flat Diameter, Side to Proc. (Conv. or Conc.).

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

14. Design pressure psi at OF Drop Weight Charpy Impact at temp. of

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlet: Number Size Location

16. Nozzles:

Table with 7 columns: Purpose (Inlet, Outlet, Drain), Number, Dia. or Size, Type, Material, Thickness, Reinforcement Material, How Attached.

DOCUMENT REVIEWED By: J.E. & G.

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)



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

1. Owner: Washington Public Power Supply System (WPPSS)

Address: 3000 George Washington Way, Richland, Washington

Date: 7/25/94

Sheet: 1 of 1

2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)

Address: Hanford Reservation, Benton County, Washington

Unit: WNP-2

3. (a) Work Performed By: Bechtel Construction, Inc, PO Box 600, Richland, WA

(b) Repair Organization P.O. No, Job No, etc.: C20069

4. Identification Of System: Containment Electrical Penetration No X-105A

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

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Containment Electrical Penetration No X-105A	PDM	Containment Vessel	790	N/A	1982	Replacement	Yes, Code Class MC

7. Description Of Work Performed: Replaced module for Electrical Penetration No X-105A, Position No 1. The replacement work was performed as follows

- 1) Removed the existing module from Electrical Penetration No X-105A, Position No 1
- 2) Installed new module in Electrical Penetration No X-105A, Position No 1
- 3) Performed pressure test on the Electrical Penetration No X-105A to module "O" ring joint - One (1) outboard joint for Position No 1 to confirm pressure boundary integrity. Leakage was observed during the pressure test. Leakage 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 LLRT
 Test Pressure: 38.95 Psig Test Temperature: 77.4° F
 Component Design Pressure: 45 Psig Temperature: 340° F

9. Remarks: See attached N-2 Code Data Report for the Electrical Penetration assembly Serial No 791101, National Board No W16978

Notes -

- 1) The new module for WNP-2 Electrical Penetration X-105A was from WNP-1 ASME NPT Code Stamped Electrical Penetration assembly Serial No 791101, National Board No W16978
- 2) Component design pressure of 45 Psig and design temperature of 340° F is based on the N-1 Code Data Report issued by PDM for the Containment Vessel

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 RT Maen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/23/94 Date 7-26-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-9-94 to 7-26-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

DM Khogate Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-26-94

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

As required by the Provisions of the ASME Code Rules

Quadruple Suez 5

(a) Manufactured by Westinghouse Electric Corp., Westinghouse Circle, Horseheads, NY 14845
(Name and address of Manufacturer of part)

(b) Manufactured for Washington Public Power Supply System, Hanford, Wash.
(Name and address of Manufacturer of completed nuclear component)

2. Identification-Manufacturer's Serial No. of Part 791101 Nat'l Bd. No. W16978

(a) Constructed According to Drawing No. E40106 Drawing Prepared by R. L. Korner

(b) Description of Part Inspected Electrical Penetration Assembly

(c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 75, Case No. N/A Class. M.C.

3. Remarks: This device when welded to the containment nozzle provides 3 sockets for the penetration modules. Together these parts complete the pressure boundary of the containment. This device has been pneumatically pressure tested in conformance with design requirements.
(Brief description of service for which component was designed)

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

Date Dec. 10, 1979 Signed Westinghouse Elec. Corp. By J. B. Kessing
(Manufacturer)

Certificate of Authorization Expires August 4, 1981 Certificate of Authorization No. 1190

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at Washington Public Power Supply System, Hanford, Wash.
Stress analysis report on file at Westinghouse Electric Corp., Westinghouse Circle, Horseheads, NY
Design specifications certified by Burton Nemroff Prof. Eng. State Wash. Reg. No. 15344
Stress analysis report certified by Michael Yonko Prof. Eng. State H.Y. Reg. No. 44063

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 New York and employed by Lumbermens Mutual Casualty Co. of Long Grove, Illinois have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on December 10, 1979, 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 10, 1979

S. A. Thomas
Inspector's Signature S. A. Thomas

Commissions NB 3605
National Board, State, Province and No.

DOCUMENT REVIEWED
By: J. J. WESTON
U.E. & C.

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

S/N 791101

Kulap 6/1/94

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

4. Shell: Material SA333 T.S. 60,000 Nominal Thickness .406 in. Corrosion Allowance in. Dis. 12 in. Length 0 ft. 7.5 in.

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

6. Heads: (a) Material SA240-type 304 T.S. 75000 (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.)

If removable, bolts used SA193-B7 1/2-13 6 Req. Other fastening SA193-B7 5/8-11 - 1 Req.

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

8. Design pressure INTERNAL 52 psi at 284 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 Dis. Thickness in. Attachment (Welded, Bolted)

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. Dis. ft. in. Length ft. in.

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

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.)

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

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

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number Size Location

16. Nozzles:

Table with columns: Purpose (Inlet, Outlet, Drain), Number, Dia. or Size, Type, Material, Thickness, Reinforcement Material, How Attached. Row 1: INLET, 1, 1/4, SA213, TYPE 304, WELDED.

DOCUMENT REVIEWED 7/3 1994 J.C. HESTER Sy.

17. Inspection Manholes, No. Size Location

Openings: Handholes, No. Size Location

Threaded, No. Size Location

18. Supports: Skirt Legs Lugs Other Attached (Where & How)

1 If Postweld Heat-Treatment



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/5/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

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

- 7. Description Of Work Performed:** Repaired by welding pits on the inside (ID) surfaces of the piping (spacer ring and flange) down stream side of valve SW-V-2B. The repair work was performed as follows
- 1) Weld repaired (weld built up) pits on the inside (ID) surfaces of the piping flange
 - 2) Ground/blended the weld repaired areas on the inside (ID) surfaces of the piping flange flush with the adjacent base metal to match the contour of the inside surfaces
 - 3) Performed MT examination on the final ground/blended surfaces of the piping flange. MT examination results acceptable
 - 4) Weld repaired (weld built up) pits on the inside (ID) surfaces of the spacer ring
 - 5) Ground/blended the weld repaired areas on the inside (ID) surfaces of the spacer ring flush with the adjacent base metal to match the contour of the inside surfaces
 - 6) Performed MT examination on the final ground/blended surfaces of the spacer ring. MT examination results acceptable
 - 7) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 205 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 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 RT Man
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/5/94 Date 7-6-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-29-94 to 6-22-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hagan Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements

Date 7/6/94



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

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Service Water (SW) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/5/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|

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

- 7. Description Of Work Performed:** Replaced valve SW-V-2B. The replacement work was performed as follows
- 1) Removed existing valve
 - 2) Installed new valve
 - 3) Performed pressure test to confirm pressure boundary integrity. 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 [X] Other [] None
Test Pressure: 205 Psig Test Temperature: 65° F
Component Design Pressure: 309 Psig Temperature: 150° F

9. Remarks: See attached NPV-1 Code Data Report for the new valve SW-V-2B, Serial No E-Z073-1-1

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 - Materials And Inspection Signed By R. Anon - Manager, Materials And Inspection

Date 7/5/94 Date

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington and employed by Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-29-94 to 6-22-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Inspector's Signature Dan Vengarth Commissions 9556W NBI
National Board, State, and Endorsements

Date 7/6/94

FORM NPV-1 (back)

8. Remarks _____

9. Design conditions 710 psi 150 °F or valve pressure class 300 (1)
(pressure) (temperature)

10. Cold working pressure 720 psi at 100°F

11. Hydrostatic test 1100 psi. Disk differential test pressure 792 psi

CERTIFICATION OF DESIGN

Design Specification certified by Jack R. Cole P.E. State WA Reg. no. 0020653
Design Report certified by N/A P.E. State N/A Reg. no. N/A

CERTIFICATE OF SHOP 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 4/15/95

Date 4/29/93 Name Anchor/Darling Valve Company Signed R. Stannett
(IN 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 ~~XXXXXX~~ of Pennsylvania and employed by Commercial Union Ins. Co. of Boston, Mass. have inspected the pump, or valve, described in this Data Report on 4-28 thru 4-29, 19 93, 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 4-29-93 Signed Charles Young Commissions Pennsylvania 2392
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state or prov. and no.)

(1) For manually operated valves only.

PA-28-93



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

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 1. Owner: Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington | Date: 7/11/94
Sheet: 1 of 1 |
| 2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington | Unit: WNP-2 |
| 3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS) | |
| 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 | |
| 6. Identification Of Components Repaired Or Replaced And Replacement Components | |

Name Of Component	Name Of Manufacturer	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-FLX-1B1	Metal Bellows	011.	N/A	N/A	1980	Repair	Yes, Code Class 3

7. Description Of Work Performed: Repaired weld between stainless steel bellow and carbon steel flange for SW-FLX-1B1. The repair work was performed as follows

- 1) Ground out the existing weld between stainless steel bellow and carbon steel flange
- 2) Prepped the surfaces for rewelding
- 3) Made required weld between stainless steel bellow and carbon steel flange
- 4) Performed PT examination on the final weld. PT examination results acceptable
- 5) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 332 Psig Test Temperature: 71.4° 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 Signed By RTM
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/11/94 Date 7-12-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-30-94 to 7-14-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Hoegarty Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-14-94



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

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| 1. Owner: Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington | Date: 7/11/94
Sheet: 1 of 1 |
| 2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington | Unit: WNP-2 |
| 3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS) | |
| 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308 | |
| 6. Identification Of Components Repaired Or Replaced And Replacement Components | |

Name Of Component	Name Of Manufacturer	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-FLX-1B2	Metal Bellows	012	N/A	N/A	1980	Repair	Yes, Code Class 3

- 7. Description Of Work Performed:** Repaired weld between stainless steel bellow and carbon steel flange for SW-FLX-1B2. The repair work was performed as follows
- 1) Ground out the existing weld between stainless steel bellow and carbon steel flange
 - 2) Prepped the surfaces for rewelding
 - 3) Made required weld between stainless steel bellow and carbon steel flange
 - 4) Performed PT examination on the final weld. PT examination results acceptable
 - 5) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 332 Psig Test Temperature: 71.4° 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 Signed By R. M. ...
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/11/94 Date 7-12-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-30-94 to 7-14-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Jim ... Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements

Date 7-14-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS)

Address: 3000 George Washington Way, Richland, Washington

Date: 7/6/94

Sheet: 1 of 1

2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)

Address: Hanford Reservation, Benton County, Washington

Unit: WNP-2

3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA

(b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)

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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308

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

Name Of Component	Name Of Manufacturer	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	Replacement	Yes, Code Class 2

7. **Description Of Work Performed:** Replaced bolting material for the flanged joint shown on Dwg CIA-4133-1. The replacement work was performed as follows

1) Installed new stud for the flanged joint

2) Performed pressure test to confirm pressure boundary integrity. 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: 184 Psig

Test Temperature: 78.6° F

Component Design Pressure: 300 Psig

Temperature: 340° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not applicable

Certificate Of Authorization No.: Not applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By R. Amos
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/6/94 Date 7-6-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-1-94 to 7-1-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Koppert Commissions 9556 W NBI
Inspector's Signature National Board, State, and Endorsements

Date 7-6-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/5/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** High Pressure Core Spray (HPCS) System
5. (a) **Applicable Construction Code:** ASME Section III, Code Class 2, 1971 Edition with Summer 1971 Addenda, Code Case: None
 (b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
HPCS-V-23	Anchor Darling	2N 238	N/A	N/A	1974	Repair	Yes, Code Class 2

7. **Description Of Work Performed:** Made fillet weld around disc to disc nut joint for valve HPCS-V-23. The work was performed as follows
- 1) Made fillet weld around disc to disc nut joint
 - 2) Performed PT examination on the final fillet weld. PT examination results acceptable
 - 3) Performed pressure test to confirm pressure boundary integrity. 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 None
 Test Pressure: 390 Psig Test Temperature: 71° F
 Component Design Pressure: 1410 Psig Temperature: 700° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this 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 Atman
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/5/94 Date 7-6-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-1-94 to 6-22-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 9556 W NBT
 Inspector's Signature National Board, State, and Endorsements
 Date 7-6-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/6/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-165B	Allis Chalmers	73912-2	N/A	N/A	1978	Replacement	Yes, Code Class 3

7. Description Of Work Performed: Replaced end cover plate for valve SW-V-165B . The replacement work was performed as follows

- 1) Fabricated new end cover plate
- 2) Installed fabricated end cover plate on the valve
- 3) Performed pressure test to confirm pressure boundary integrity. 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: 205 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 R. Anon
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/6/94 Date 7-6-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-6-94 to 6-22-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Vargiacoff Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-6-94



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

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Service Water (SW) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/6/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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	BF Shaw	SW(22)-2-9	N/A	N/A	1979	Replacement	Yes, Code Class 3

7. Description Of Work Performed: Replaced bolting material for the flanged joint shown on Dwg ED-SW-1. The replacement work was performed as follows

- 1) Installed new nuts for valve SW-V-165B flanged joint
- 2) Performed pressure test to confirm pressure boundary integrity. 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: 205 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 R. Amos
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/6/94 Date 7-6-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-8-94 to 6-22-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be 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 9556 W NBI
Inspector's Signature National Board, State, and Endorsements

Date 7-6-94



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

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Service Water (SW) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/11/84</p> <p>Sheet: 1 of 1</p> <p>Unit: WNP-2</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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-FLX-1B2	Metal Bellows	012	N/A	N/A	1980	Repair	Yes, Code Class 3

7. Description Of Work Performed: Repaired weld between stainless steel bellow and carbon steel flange for SW-FLX-1B2. The repair work was performed as follows

- 1) Ground out the existing weld between stainless steel bellow and carbon steel flange
- 2) Prepped the surfaces for rewelding
- 3) Made required weld between stainless steel bellow and carbon steel flange
- 4) Performed PT examination on the final weld. PT examination results acceptable
- 5) Performed pressure test to confirm pressure boundary integrity. No evidence of leakage during the pressure test

Note - This ASME Section XI Plan documents the repair on flex hose SW-FLX-1B2 for the second time. Flex hose SW-FLX-1B2 was previously repaired in accordance with ASME Section XI Plan No 2-1074



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 332 Psig Test Temperature: 71.4° 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 Authorlzation No.: Not applicable
 Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By RAMOU
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/11/94 Date 7-12-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-9-94 to 7-14-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hoegemart Commissions 956W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-14-94



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/22/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Reactor Pressure Vessel (RPV)
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RPV	CBI Nuclear	T45	8	N/A	1974	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Replaced Local Power Range Monitoring (LPRM) incore assembly. The replacement work was performed as follows
- 1) Removed existing Local Power Range Monitoring (LPRM) incore assembly at Core Location 16-17
 - 2) Installed new Local Power Range Monitoring (LPRM) incore assembly at Core Location 16-17



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

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

9. Remarks: See attached N-2 Code Data Report for the following new Local Power Range Monitoring (LPRM) Incore assembly
 Core Location 16-17 LPRM Serial No K8619

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Supt Signed By R. Man
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/22/94 Date 6-23-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-12-94 to 6-24-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Paul Singh Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 6/24/94

WORK ORDER NUMBER: 4529

PLAN NO. 2-1085
Rudolf Swig
6/20/94

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

As required by the Provisions of the ASME Code Rules

- 1. (a) Manufactured by GE REUTER-STOKES, INC. 8499 DARROW ROAD, TWINSBURG, OHIO 44087
(Name and address of Manufacturer of part)
- (b) Manufactured for WNP-2 WASHINGTON PUBLIC POWER SUPPLY SYSTEM, RICHLAND WA 99352
(Name and address of Manufacturer of completed nuclear component)
- 2. Identification-Manufacturer's Serial No. of Part K8619 Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No. RS-C6-1315-201 Drawing Prepared by GE REUTER-STOKES
- (b) Description of Part Inspected NA-300 POWER RANGE DETECTOR
- (c) Applicable ASME Code: Section III, Edition 1977, Addenda date SUMMER 1977, Case No. N/A Class GC
- 3. Remarks: DESIGN: PRESSURE 1250 PSIG, TEMPERATURE - VESSEL 575°F, SEAL 300°F
(Brief description of service for which component was designed)
HYDROSTATIC TEST PRESSURE: 1925 PSIG

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 6/10 19 94 Signed GE REUTER-STOKES By [Signature]
(Manufacturer) QUALITY ASSURANCE
Certificate of Authorization Expires SEPTEMBER 16, 1994 Certificate of Authorization No. N-2703

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at GE REUTER-STOKES, INC. TWINSBURG, OH DC24A1257AK

Stress analysis report on file at GE REUTER-STOKES, INC. TWINSBURG, OH CDR-C-5320-117

Design specifications certified by SURINDER L. KAMPANI Prof. Eng. State OH Reg. No. E-034113

Stress analysis report certified by DOUGLAS E. BAGSO Prof. Eng. State OH Reg. No. E-044071

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 OHIO and employed by H.S.B.I. & I. Co. of HARTFORD, CT have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on 6-10 19 94, 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 6-10 19 94

[Signature]
Inspector's Signature

Commissions NB 7920 AN OHIO PAUC 2454-N
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:** Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington
- 2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington
- 3. (a) **Work Performed By:** Bechtel Construction, Inc, PO Box 600, Richland, WA
(b) **Repair Organization P.O. No, Job No, etc.:** C20069
- 4. **Identification Of System:** Containment Electrical Penetration No X-105C
- 5. (a) **Applicable Construction Code:** ASME Section III, Code Class MC, 1971 Edition with Summer 1972 Addenda, Code Case: None
(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 6/25/94
Sheet: 1 of 1
Unit: WNP-2

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Containment Electrical Penetration No X-105C	PDM	Containment Vessel	790	N/A	1982	Replacement	Yes, Code Class MC

- 7. Description Of Work Performed:** Installed blank (plugs) modules for Electrical Penetration No X-105C, Position No's 1 and 2. The replacement work was performed as follows
- 1) Removed the existing blank (plugs) modules from Electrical Penetration No X-105C, Position No's 1 and 2
 - 2) Installed new blank (plugs) modules in Electrical Penetration No X-105C, Position No's 1 and 2
 - 3) Performed pressure test on the Electrical Penetration No X-105C to blank (plugs) modules "O" ring joints - Two (2) outboard joints for Position No's 1 and 2 to confirm pressure boundary integrity. 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 LLRT
 Test Pressure: 38.8 Psig Test Temperature: 80.6° F
 Component Design Pressure: 45 Psig Temperature: 340° F

9. Remarks: See attached N-2 Code Data Reports for the Electrical Penetration assemblies Serial No 780602, National Board No W16790 and Serial No 780603, National Board No W16791

Notes -

- 1) The new blank (plugs) modules for WNP-2 Electrical Penetration X-105C were from WNP-1 ASME NPT Code Stamped Electrical Penetration assemblies 780602, National Board No W16790 and Serial No 780603, National Board No W16791
- 2) Component design pressure of 45 Psig and design temperature of 340° F is based on the N-1 Code Data Report issued by PDM for the Containment Vessel

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Amos
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/25/94 Date 7-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-13-94 to 6-28-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Haggarth Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/5/94

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

As required by the Provisions of the ASME Code Rules

Welding Survey
of 1974

- (a) Manufactured by Westinghouse Electric Corp., Westinghouse Circle, Horseheads, NY 14845
(Name and address of Manufacturer of part)
- (b) Manufactured for Washington Public Power Supply System, Hanford, Wash.
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part 780602 Nat'l Bd. No. W16790
- (a) Constructed According to Drawing No. E40106 Drawing Prepared by R. L. Korner
- (b) Description of Part Inspected Electrical Penetration Assembly
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer '75, Case No. N/A Class H.C.

3. Remarks: This device when welded to the containment nozzle provides 3 sockets for the penetration modules. Together these parts complete the pressure boundary of the containment.
(Brief description of service for which component was designed)

Welding Survey
of 1974

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 25, 19 78 Signed Westinghouse Electric Corp. By J. B. Kessing
(Manufacturer)

Certificate of Authorization Expires August 4, 1978 Certificate of Authorization No. 1190

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at Washington Public Power Supply System, Hanford, Wash.

Stress analysis report on file at Westinghouse Electric Corp., Westinghouse Circle, Horseheads, NY

Design specifications certified by Burton Nemroff Prof. Eng. State Wash. Reg. No. 15344

Stress analysis report certified by Michael Yonko Prof. Eng. State N.Y. Reg. No. 44063

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 New York and employed by Lumbermens Mutual Casualty Co. of Long Grove, Illinois have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on July 27, 19 78 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 27, 19 78

L. E. Watterman
Inspector's Signature

Commissions

NB 6786 PAWC 1907

National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) also is 8 1/2" x 11", (2) information in items 1-3 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".

Rudolph 6/1/94

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

4. Shell: Material SA333 ^{Gr 6} T.S. 50,000 Nominal Thickness 406 in. Corrosion Allowance _____ in. Dia. _____ ft. 12 in. Length 0 ft. 7.5 in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long Seamless H.T.¹ _____ R.T. _____ Efficiency _____ %

6. Heads: (a) Material SA240-Type 304 Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____
T.S. 75000 (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) <u>END</u>	<u>1.5</u>						<u>12.2"</u>	
(b) <u>NONE</u>								

If removable, bolts used SA193-B7 F/2-13 6 Req. Other fastening SA193-B7 5/8-11 - 1 Req.
(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 INTERNAL 52 psi at _____ 284 °F Drop Weight _____
Charpy Impact _____ ft-lb
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

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

Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ in. Attachment _____
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 Attached
<u>INLET</u>	<u>1</u>	<u>1/4</u>		<u>SA213</u>	<u>TYPE 304</u>		<u>WELDED</u>

Monitor tube installed on the shell / used for pressure testing.

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)

¹ If Postweld Heat-Treated.

² List other internal or external pressure with coincident temperature when applicable.

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

As required by the Provisions of the ASME Code Rules

Kuldrup Sup's

6/28/74

- 1. (a) Manufactured by Westinghouse Electric Corp., Westinghouse Circle, Horseheads, NY 14845
(Name and address of Manufacturer of part)
- (b) Manufactured for Washington Public Power Supply System, Hanford, Wash.
(Name and address of Manufacturer of completed nuclear component)
- 2. Identification-Manufacturer's Serial No. of Part 780603 Nat'l Bd. No. W16791
- (a) Constructed According to Drawing No. E40106 Drawing Prepared by R. L. Korner
- (b) Description of Part Inspected Electrical Penetration Assembly
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 75, Case No. N/A Class M.C.
- 3. Remarks: This device when welded to the containment nozzle provides 3 sockets
(Brief description of service for which component was designed)
for the penetration modules. Together these parts complete the pressure
boundary of the containment.

Kuldrup

5/27/74

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 25, 19 78 Signed Westinghouse Elec. Corp. By J. B. Kessing
(Manufacturer)

Certificate of Authorization Expires August 4, 1978 Certificate of Authorization No. 1190

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at Washington Public Power Supply System, Hanford, Wash.

Stress analysis report on file at Westinghouse Electric Corp., Westinghouse Circle, Horseheads, NY

Design specifications certified by Burton Nemroff Prof. Eng. State Wash. Reg. No. 15344

Stress analysis report certified by Michael Yonko Prof. Eng. State N.Y. Reg. No. 44063

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 New York and employed by Lumbermens Mutual Casualty Co. of Long Grove, Illinois

have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on July 27, 19 78, 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 27, 19 78

L. E. Warren
Inspector's Signature

Commission NB 6786 PAWC 1907
National Board, State, Province and No.

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

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

4. Shell: Material SA333 ^{Gr 5} T.S. 60,000 Nominal Thickness 406 in. Allowance _____ in. Dia. _____ ft. _____ in. Length 0 ft. 7.5 in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long Seamless H.T.¹ _____ R.T. _____ Efficiency _____ %

6. Heads: (a) Material SA240-Type 304 T.S. 75000 (b) Material _____ T.S. _____
Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____
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) END 1.5 _____ _____ _____ _____ _____ _____ 12.2"
(b) NONE _____ _____ _____ _____ _____ _____ _____ _____
If removable, bolts used SA193-B7 1/2-13 6 Req. Other fastening SA193-B7 5/8-11 - 1 Req.
(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 - INTERNAL 52 psi at 284 °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)

10. Tubes: Material _____ Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____
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. Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %

13. Heads (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____
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 Outlet: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
<u>INLET</u>	<u>1</u>	<u>1/4</u>		<u>SA213</u>	<u>TYPE 304</u>		<u>WELDED</u>
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Lugs _____ 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:** Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Bechtel Construction, Inc, PO Box 600, Richland, WA
(b) **Repair Organization P.O. No, Job No, etc.:** C20069
4. **Identification Of System:** Containment Electrical Penetration No X-101C
5. (a) **Applicable Construction Code:** ASME Section III, Code Class MC, 1971 Edition with Summer 1972 Addenda, Code Case: None
(b) **Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 7/7/94
Sheet: 1 of 1
Unit: WNP-2

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Containment Electrical Penetration No X-101C	PDM	Containment Vessel	790	N/A	1982	Replacement	Yes, Code Class MC

7. **Description Of Work Performed:** Installed module for Electrical Penetration No X-101C, Position No 3. The replacement work was performed as follows
- 1) Removed the existing module from Electrical Penetration No X-101C, Position No 3
 - 2) Installed new module in Electrical Penetration No X-101C, Position No 3
 - 3) Performed pressure test on the Electrical Penetration No X-101C to modules "O" ring joint - One (1) outboard joint for Position No 3 to confirm pressure boundary integrity. 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 LLRT
 Test Pressure: 38.9 Psig Test Temperature: 83.2° F
 Component Design Pressure: 45 Psig Temperature: 340° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By R. Amos
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/7/94 Date 7-7-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-23-94 to 7-11-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI
 By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection

Don Haggan Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-11-94



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

- 1. Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/7/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Bechtel Construction, Inc, PO Box 600, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: C20069
4. Identification Of System: Containment Electrical Penetration No X-101D
5. (a) Applicable Construction Code: ASME Section III, Code Class MC, 1971 Edition with Summer 1972 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Containment Electrical Penetration No X-101D	PDM	Containment Vessel	790	N/A	1982	Replacement	Yes, Code Class MC

- 7. Description Of Work Performed:** Installed module for Electrical Penetration No X-101D, Position No 3. The replacement work was performed as follows
- 1) Removed the existing module from Electrical Penetration No X-101D, Position No 3
 - 2) Installed new module in Electrical Penetration No X-101D, Position No 3
 - 3) Performed pressure test on the Electrical Penetration No X-101D to modules "O" ring joint - One (1) outboard joint for Position No 3 to confirm pressure boundary integrity. 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 LLRT
Test Pressure: 38.9 Psig Test Temperature: 81° F
Component Design Pressure: 45 Psig Temperature: 340° F

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp: Not applicable

Certificate Of Authorization No.: Not applicable

Expiration Date: Not Applicable

Prepared By Kuldip Singh Signed By R. M. Mee
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/1/94 Date 7-7-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-23-94 to 7-11-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Waggan Commissions 9556W NBI
Inspector's Signature National Board, State, and Endorsements

Date 7-11-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/14/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Bechtel Construction, Inc, PO Box 600, Richland, WA
(b) **Repair Organization P.O. No, Job No, etc.:** C20069
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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	Replacement	Yes, Code Class 3

7. **Description Of Work Performed:** Replaced bolting material for the flanged joints for flex hoses SW-FLX-2A1 and SW-FLX-2A2 .
The replacement work was performed as follows
1) Installed new studs and nuts for flex hose SW-FLX-2A1 flanged joint
2) Installed new studs and nuts for flex hose SW-FLX-2A2 flanged joint
3) Performed pressure test to confirm pressure boundary integrity. 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 None
Test Pressure: 332 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 R. Man
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
Date 7/14/94 Date 7-14-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-21-94 to 7-15-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 9556W NBI
Inspector's Signature National Board, State, and Endorsements
Date 7-15-94



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

- 1. Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/22/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
- 2. Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
- 3. (a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
- 4. Identification Of System:** Containment Vacuum Breaker (CVB) 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CVB-V-1JK	Anderson Greenwood	VB 7895	N/A	N/A	1983	Replacement	Yes, Code Class 2

- 7. Description Of Work Performed:** Replaced rear snubber for Containment Vacuum Breaker (CVB) valve CVB-V-1JK. The replacement work was performed as follows
- 1) Removed existing rear snubber from the valve
 - 2) Installed new rear snubber for the valve



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: P_{sig} Test Temperature: °F
 Component Design Pressure: P_{sig} 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 R. Anon
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/22/94 Date 6-23-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-11-94 to 6-24-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Jim Hoggan Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 6-24-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/25/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Standby Liquid Control (SLC) 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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-V-14	Borg Warner	20168	N/A	N/A	1977	Repair	Yes, Code Class 2

7. **Description Of Work Performed:** Removed surface defects on the disc seating surface for valve SLC-V-14. The work was performed as follows
- 1) Removed surface defects on the disc seating surface by machining
 - 2) Performed PT examination on the final machined seating surfaces. PT examination results acceptable



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. Arora
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
Date 6/28/94 Date 7-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-22-94 to 6-27-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Weyerath Commissions 9556W NBI
Inspector's Signature National Board, State, and Endorsements
Date 7/5/94



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

- 1. Owner:** Washington Public Power Supply System (WPPSS) **Date:** 6/30/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. Identification Of System: Containment Instrument Air (CIA) 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	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-30A	Borg Warner	27083	N/A	N/A	1978	Repair	Yes, Code Class 2

7. Description Of Work Performed: Made body to bonnet seal weld for valve CIA-V-30A. The work was performed as follows

- 1) Cut valve body to bonnet seal weld
- 2) Removed valve internals for troubleshooting
- 3) Prepped cut/ground areas on the valve body and the bonnet
- 4) Machined disc seating surface
- 5) Performed PT examination on the final machined disc seating surface. PT examination results acceptable
- 6) Reinstalled valve internals and the bonnet
- 7) Made valve body to bonnet seal weld
- 8) Performed PT examination on the final seal weld. PT examination results acceptable



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By R. Amoe
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 6/30/94 Date 7-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-23-94 to 7-1-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Jim Haggard Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/5/94



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

- 1. **Owner:** Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington
- 2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington
- 3. (a) **Work Performed By:** Bechtel Construction, Inc, PO Box 600, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** C20069
- 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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 7/15/94
Sheet: 1 of 1
Unit: WNP-2

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

7. Description Of Work Performed: Repaired pin hole leak in 2" socket weld for CAC-HR-1B piping. The repair work was performed as follows

- 1) Removed (locally) unacceptable pin hole leak
- 2) Prepared the cavity for weld repair
- 3) Performed PT examination on the cavity. PT examination results acceptable
- 4) Weld repaired the cavity
- 5) Blended the weld repaired area with the surrounding weld metal
- 6) Performed PT examination on the weld repaired area. PT examination results acceptable
- 7) Performed pressure test to confirm pressure boundary integrity. 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 None
Test Pressure: 57 Psig Test Temperature: 73.9° F
Component Design Pressure: 45 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 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 - Materials And Inspection

Signed By: [Signature]
Manager, Materials And Inspection

Date: 7/15/94

Date: 7-15-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6/30/94 to 7/18/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 92180 A N I
National Board, State, and Endorsements

Date: 7/18/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/25/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Process Sample Radioactive (PSR) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
PSR-V-0077A/1	Target Rock	1	N/A	N/A	1982	Repair And Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Made body to bonnet seal weld for valve PSR-V-0077A/1. The work was performed as follows
- 1) Cut valve body to bonnet seal weld
 - 2) Removed valve internals for troubleshooting
 - 3) Prepped cut/ground areas on the valve body and the bonnet
 - 4) Performed PT examination on the final prepped surfaces of the valve body and bonnet. PT examination results acceptable
 - 5) Installed new valve main disc
 - 6) Reinstalled the bonnet in the valve
 - 7) Made valve body to bonnet seal weld
 - 8) Performed PT examination on the final seal weld. PT examination results acceptable



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

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

9. Remarks: See attached N-2 Code Data Report for the new valve main disc, Serial No 2087

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this repair and replacement conforms to the rules of the 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 R. A. Moore
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
Date 7/26/94 Date 7-26-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 7-8-94 to 7-26-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don W. Houghton Commissions 9556 W NBI
Inspector's Signature National Board, State, and Endorsements
Date 7-26-94

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

PLAN No. 2-1097

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 Target Rock Corp.; 1966E Broadhollow Rd; E. Farmingdale, NY 11735
(name and address of 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 202539-1 SA-564 630 140 ksi N/A 1992
(drawing no.) (mat'l. spec. no.) (nominal strength) (CRN) (year built)
- 5. ASME Code, Section III: 1974 Winter 1975 1 None
(edition) (addenda) (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 No. 82M-001

DISC S/N 2087 Quincy Sup's
7/25/94

- 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) 2064	N/A
(2) 2076	N/A
(3) 2087	N/A
(4) 2096	N/A
(5) 2099	N/A
(6) 2102	N/A
(7) N/A	N/A
(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 Number In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
(37)	
(38)	
(39)	
(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	SATISFACTORY <input checked="" type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
(47)	<u>Virgil Bold</u> <u>7/12-15-92</u>
(48)	RECEIVED / DATE
(49)	
(50)	

- 10. Design pressure N/A psi Temp. N/A °F. Hydro. test pressure 4285 psig at temp. °F. Ambient
(when applicable)

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

CERTIFICATE OF DESIGN

As Required by the provisions of the ASME Code

Design specifications certified by G. L. Mayfield P. E. state OR Reg. no. 7140
(when applicable)

Design report* certified by J. Miazza P. E. state NY Reg. no. 51883
(when applicable)

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization no. 1948 Expires 12-12-92

Date 11/30/92 Name Target Rock Corporation Signed E. Champéy
(NPT Certificate Holder) (Authorized Representative)
E. Champéy; Director, Q.A.

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 Commercial Union Insurance Company of Boston, Mass. have inspected these items described in this data report on 11/30/92 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 11/30/92 Signed William O. Holand Commission No. N. Y. STATE COMMISSION NO. 2288
(Authorized Inspector) ALSO COMMISSIONED IN PENN., OHIO & CONN.
(N.B. Bd. (Incl. endorsements) state or prov. and no.)

SATISFACTORY UNSATISFACTORY
W. B. P. INSPECTOR / LEVEL / DATE 12-15-92

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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 4/4/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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-5	Lonergan	509258-86-1	N/A	N/A	1979	Replacement	Yes, Code Class 2

7. **Description Of Work Performed:** Replaced parts for relief valve RHR-RV-5. The replacement work was performed as follows
- 1) Installed new disc in the relief valve
 - 2) Installed new nozzle in the relief valve
 - 3) Reinstalled the relief valve in the system
 - 4) Performed pressure test to confirm pressure boundary integrity. 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 ILRT
 Test Pressure: 62 Psig Test Temperature: 96.8/115.6° F
 Component Design Pressure: 220 Psig Temperature: 425° 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 R. A. Mc
 Kuldip Singh Materials And Inspection Manager, Materials And Inspection

Date 8/3/94 Date 8-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 7-9-94 to 8-4-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don. Hoogarth Commissions 9550W NBI
 Inspector's Signature National Board, State, and Endorsements

Date 8-4-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/25/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
HPCS(2)-1	WPPSS	HPCS(2)-1-P1	N/A	N/A	1973	Repair	Yes, Code Class 2

7. **Description Of Work Performed:** Repaired drain connection with valve HPCS-V-58. The repair work was performed as follows
- Note - Unacceptable PT indication was observed in pipe to half coupling socket weld
- 1) Cut pipe to half coupling socket weld
 - 2) Cut pipe near the socket weld with unacceptable PT indication
 - 3) Removed pipe and socket weld with unacceptable PT indication
 - 4) Reinstalled the remaining pipe nipple in the half coupling
 - 5) Made required socket weld
 - 6) Performed PT examination on the final socket weld. PT examination results acceptable



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By R. Anon
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/25/94 Date 7-26-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 7-14-94 to 7-26-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Vlogarath Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-26-94



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 8/3/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Process Sample Radioactive (PSR) System
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
<u>PI(1)-4S-X77Ac</u>	<u>JCI</u>	<u>PI(1)-4S-X77Ac</u>	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Replaced valve PSR-V-0077A/1. The replacement work was performed as follows
- 1) Removed existing valve
 - 2) Installed new valve
 - 3) Made required socket welds
 - 4) Performed PT examination on the final socket welds. PT examination results acceptable

Revision - Revised Item 6 and Item 9 (Underlined portion only)



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

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

9. Remarks: See attached NPV-1 Code Data Report for the new valve, 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 R. A. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 8/3/94 Date 8-4-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 7-15-94 to 8-8-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 Hoggan Commissions 9556W NBZ
 Inspector's Signature National Board, State, and Endorsements
 Date 8-8-94

S/N 1 UPGRADED

Enlarip 7/15/94

Mfr. Serial No. See Front

8. Remarks Indicator Tube - SA-479.316, S/N's - 3138, 3140, 3167, 3168, 3210, 3161

Respectively

- 9. Design conditions: * 1550 psi (pressure) * 575 F (temperature) * 1500 or valve pressure class 900 (1)
- 10. Cold working pressure: 1800 psi at 100 F
- 11. Hydrostatic test: 2700 psi Temp. N/A F Disk differential test pressure: 1980 psi * 4500 psi * 3000 psi

CERTIFICATION OF DESIGN

Design Specification certified by David M. Bosi Prof. Eng. state Washington Reg. No. 20941
 Design Report certified by Martin Goldstone Prof. Eng. state New York Reg. No. 31940

CERTIFICATE OF SHOP 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.
 N Certificate of Authorization No. 1947 Expires 12-9-86
 Date 4-30-86 Name Target Rock Corporation Signed [Signature]
 (N Certificate Holder) (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 New York and employed by Commercial Union Ins. Co. of Boston, Mass. have inspected the pump, or valve, described in this Data Report on 4/30 19 86, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

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

Date 4/30 19 86
William A. Roland NEW YORK STATE COMMISSION NO. 2288
 (Inspector) Commissions ALSO COMMISSIONED IN Penn., Ohio & Connt.
 (Nat'l Bd., Incl. endorsements) State, Prov. and No.)

(1) For manually operated valves only.

2 3 4 6 0 1 4 9



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/20/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
MS(9)-4	WPPSS	MS(9)-4-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Replaced snubber for support MS-1368-13. The replacement work was performed as follows
- 1) Removed existing snubber with Serial No 2145
 - 2) Installed new snubber with Serial No 2470
 - 3) Performed operability test on the new snubber. Operability test was satisfactory



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. A. Moen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/21/94 Date 7-21-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5/20/94 to 7/25/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dr. S. S. Singh Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/25/94



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

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Reactor Recirculation Cooling (RRC) System</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/20/94</p> <p>Sheet: 1 of 1</p> <p>Unit: WNP-2</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B35-G001A	WPPSS	B35-G001A-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Deleted (removed) snubbers for the following supports for Reactor Recirculation Cooling (RRC) System, Loop "A". The work was performed as follows

<u>Support Mark No</u>	<u>Modification Action</u>	<u>ASME NF Class</u>	<u>Comment</u>
RRC-SA-1	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-2	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-8	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-9	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-11	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-12	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-13	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-14	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-15	Deleted	NF(1)	Removed One (1) Snubber And Clamp
RRC-SA-16	Deleted	NF(1)	Removed One (1) Snubber And Clamp
RRC-SA-17	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-18	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-19	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-20	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-25	Deleted	NF(1)	Removed One (1) Snubber
RRC-SA-66	Deleted	NF(1)	Removed One (1) Snubber And Clamp



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By [Signature]
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/21/94 Date 7-21-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5/20/94 to 7/25/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be 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 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/25/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/20/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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(51)-4	WPPSS WPPSS	RRC(51)-4-P1 RRC(51)-4-P2	N/A N/A	N/A N/A	1983 1983	Replacement Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Deleted (removed) snubbers for the following supports for Reactor Recirculation Cooling (RRC) System, Loop "A". The work was performed as follows

<u>Support Mark No</u>	<u>Modification Action</u>	<u>ASME NF Class</u>	<u>Comment</u>
RHR-SA-30	Deleted	NF(1)	Removed Two (2) Snubbers And Clamp
RHR-SA-31	Deleted	NF(1)	Removed One (1) Snubber

Note - RHR-SA-30 and RHR-SA-31 supports for Reactor Recirculation Cooling (RRC) System



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By BT Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/21/94 Date 7-21-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5/20/94 to 7/25/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

D. Vogt Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/25/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/20/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	WPPSS	RHR(1)-4B1-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Deleted (removed) snubber for the following support for Residual Heat Removal (RHR) System, Loop "B". The work was performed as follows

<u>Support Mark No</u>	<u>Modification Action</u>	<u>ASME NF Class</u>	<u>Comment</u>
RHR-2264-21	Deleted	NF(1)	Removed One (1) Snubber



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By RT Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/21/94 Date 7-21-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5/20/94 to 7/25/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Jan Sorenson Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/25/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/20/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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)-4A	WPPSS	RHR(1)-4A-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. **Description Of Work Performed:** Deleted (removed) snubbers for the following supports for Residual Heat Removal (RHR) System, Loop "A". The work was performed as follows

<u>Support Mark No</u>	<u>Modification Action</u>	<u>ASME NF Class</u>	<u>Comment</u>
RHR-SA-35	Deleted	NF(1)	Removed One (1) Snubber
RHR-SA-36	Deleted	NF(1)	Removed One (1) Snubber
RHR-SA-37	Deleted	NF(1)	Removed One (1) Snubber
RHR-SA-39	Deleted	NF(1)	Removed Two (2) Snubbers
RHR-SA-40	Deleted	NF(1)	Removed One (1) Snubber



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By R. M. Maden
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/21/94 Date 7-21-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5/20/94 to 7/25/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Hoggan Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/25/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/20/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
RHR(1)-4A1	WPPSS	RHR(1)-4A1-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Deleted (removed) snubbers for the following supports for Residual Heat Removal (RHR) System, Loop "A". The work was performed as follows

<u>Support Mark No</u>	<u>Modification Action</u>	<u>ASME NF Class</u>	<u>Comment</u>
RHR-SA-54	Deleted	NF(1)	Removed One (1) Snubber And Clamp
RHR-SA-55	Deleted	NF(1)	Removed One (1) Snubber
RHR-SA-57	Deleted	NF(1)	Removed One (1) Snubber
RHR-SA-58	Deleted	NF(1)	Removed Two (2) Snubbers
RHR-SA-59	Deleted	NF(1)	Removed One (1) Snubber



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. Amos
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/21/94 Date 7-21-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5/20/94 to 7/25/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/25/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/20/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
B35-G001B	WPPSS	B35-G001B-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Deleted (removed) snubbers for the following supports for Reactor Recirculation Cooling (RRC) System, Loop "B". The work was performed as follows

<u>Support Mark No</u>	<u>Modification Action</u>	<u>ASME NF Class</u>	<u>Comment</u>
RRC-SB-1	Deleted	NF(1)	Removed One (1) Snubber
RRC-SB-2	Deleted	NF(1)	Removed One (1) Snubber
RRC-SB-11	Deleted	NF(1)	Removed One (1) Snubber
RRC-SB-12	Deleted	NF(1)	Removed One (1) Snubber
RRC-SB-13	Deleted	NF(1)	Removed One (1) Snubber
RRC-SB-14	Deleted	NF(1)	Removed One (1) Snubber
RRC-SB-15	Deleted	NF(1)	Removed One (1) Snubber And Clamp
RRC-SB-16	Deleted	NF(1)	Removed Two (2) Snubbers
RRC-SB-17	Deleted	NF(1)	Removed One (1) Snubber
RRC-SB-18	Deleted	NF(1)	Removed One (1) Snubber
RRC-SB-25	Deleted	NF(1)	Removed One (1) Snubber
RRC-SB-66	Deleted	NF(1)	Removed One (1) Snubber And Clamp



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By R. T. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/21/94 Date 7-21-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5/20/94 to 7/25/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

D. M. Hoggarth Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/25/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/20/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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(51)-4	WPPSS WPPSS	RRC(51)-4-P1 RRC(51)-4-P2	N/A N/A	N/A N/A	1983 1983	Replacement Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Deleted (removed) snubbers for the following supports for Reactor Recirculation Cooling (RRC) System, Loop "B". The work was performed as follows

<u>Support Mark No</u>	<u>Modification Action</u>	<u>ASME NF Class</u>	<u>Comment</u>
RHR-SB-30	Deleted	NF(1)	Removed One (1) Snubber And Clamp
RHR-SB-31	Deleted	NF(1)	Removed One (1) Snubber And Clamp

Note - RHR-SB-30 and RHR-SB-31 supports for Reactor Recirculation Cooling (RRC) System



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By RT Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/21/94 Date 7-21-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5/20/94 to 7/25/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Am Xoggaush Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/25/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/20/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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)-4B	WPPSS	RHR(1)-4B-P1	N/A	N/A	1983	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Deleted (removed) snubbers for the following supports for Residual Heat Removal (RHR) System, Loop "B". The work was performed as follows

<u>Support Mark No</u>	<u>Modification Action</u>	<u>ASME NF Class</u>	<u>Comment</u>
RHR-SB-32	Deleted	NF(1)	Removed One (1) Snubber
RHR-SB-34	Deleted	NF(1)	Removed Two (2) Snubbers
RHR-SB-35	Deleted	NF(1)	Removed One (1) Snubber
RHR-SB-36	Deleted	NF(1)	Removed One (1) Snubber
RHR-SB-39	Deleted	NF(1)	Removed Two (2) Snubbers



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

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

9. Remarks: None

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh Signed By R. Man
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/21/94 Date 7-21-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5/20/94 to 7/25/94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be 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 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7/25/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 8/16/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Control Rod Drives (CRD's)
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, See below for Code Edition and Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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's	GE	See Below	N/A	N/A	See Below	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced thirty (30) Control Rod Drives (CRD's). The replacement work was performed as follows - 1) Removed thirty (30) existing CRD's, 2) Installed replacement CRD's, 3) Installed new replacement cap screws for each CRD flanged connection for all the core locations, 4) Torqued the cap screws for the CRD flanged connections to the required torque values, 5) Performed pressure test on CRD flanged connections to confirm pressure boundary integrity. Leakage was observed during pressure test and was evaluated to be acceptable

<u>Core Location</u>	<u>CRD Removed Serial Number</u>	<u>Code Year And Addenda</u>	<u>CRD Replaced Serial Number</u>	<u>Code Year And Addenda</u>	<u>Year Built</u>
02-31	6126	1971/-	6339	1971/-	1974
02-27	6343	1971/-	A9131	1974/W75	1991
26-27	7045	1974/-	7408	1971/-	1975
22-11	6690	1971/-	A8926	1974/W75	1991
10-31	6433	1971/-	6453	1971/-	1975
22-07	6260	1971/-	5970	1971/-	1975
42-43	7294	1971/-	6512	1971/-	1975
38-27	7279	1971/-	5648	1971/-	1974
42-31	7081	1971/-	A8896	1974/W75	1991
18-19	6697	1971/-	7492	1971/-	1975
18-43	6778	1971/-	7081	1971/-	1975
18-43	CRD Serial No 7081 was removed and reinstalled at this core location				
18-47	7364	1971/-	7217	1971/-	1975
58-19	6512	1971/-	A8922	1971/-	1974
18-59	7330	1971/-	7232	1971/-	1975
50-27	7143	1971/-	A8915	1971/-	1974
22-19	5648	1971/-	4703	1971/-	1975
22-23	7357	1971/-	A9158	1971/-	1974
22-43	6404	1971/-	6370	1971/-	1975
22-59	7144	1971/-	A8913	1974/W75	1991
26-07	7126	1971/-	A8932	1971/-	1975
26-15	6731	1971/-	6447	1971/-	1974
30-23	6631	1971/-	6246	1971/-	1975
30-31	5485	1971/-	A8983	1974/W75	1992
30-43	4970	1971/-	5485	1971/-	1975
30-47	6736	1971/-	6433	1971/-	1974
34-15	7183	1971/-	A8900	1971/-	1975
42-35	7202	1971/-	6491	1971/-	1975
46-39 *	6588	1971/-	7357	1971/-	1975
46-39 *	7357	1971/-	A9333	1974/W75	1992
54-39	A8745	1974/W75	7560	1971/-	1975

* Replaced CRD twice at this core location



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
 Test Pressure: 1021/917 Psig Test Temperature: 200/525.5° F
 Component Design Pressure: 1250 Psig Temperature: 535° F

9. Remarks: 1) N-2 Code Data Reports for the replacement Control Rod Drives (CRD's) are filed separately from this NIS-2 form, 2) Hydrostatic test was performed on CRD flanged connections to confirm pressure boundary integrity. Hydrostatic test pressure of 1021 Psig and test temperature of 200° F, 3) CRD flanged connections for which leakage was observed during hydrostatic test were reexamined during nominal operating pressure test. Nominal operating pressure test of 917 Psig and test temperature of 525.5° 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 R. A. Man
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 8/16/94 Date 8-16-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-9-94 to 8-17-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

D. Shogorth Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 8-17-94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 8/16/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Control Rod Drive (CRD)
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, See below for Code Edition and Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	See Below	N/A	N/A	See Below	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced one (1) Control Rod Drive (CRD). The replacement work was performed as follows - 1) Removed the existing CRD, 2) Installed replacement CRD, 3) Installed new replacement cap screws for the CRD flanged connection, 4) Torqued the cap screws for the CRD flanged connection to the required torque values, 5) Performed pressure test on CRD flanged connection to confirm pressure boundary integrity. No evidence of leakage during the pressure test

<u>Core Location</u>	<u>CRD Removed Serial Number</u>	<u>Code Year And Addenda</u>	<u>CRD Replaced Serial Number</u>	<u>Code Year And Addenda</u>	<u>Year Built</u>
38-23	6340	1971/-	A9161	1974/W75	1991



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
Test Pressure: 1021 Psig Test Temperature: 200° F
Component Design Pressure: 1250 Psig Temperature: 535° F

9. Remarks: N-2 Code Data Report for the replacement Control Rod Drive (CRD) is filed separately from this NIS-2 form

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Amca
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
Date 8/16/94 Date 8-16-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-2-94 to 8-17-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Jim Haggan Commissions 95566 NBI
Inspector's Signature National Board, State, and Endorsements
Date 8/17/94



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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 8/16/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Control Rod Drive (CRD)
5. **(a) Applicable Construction Code:** ASME Section III, Code Class 1, See below for Code Edition and Addenda, Code Case: None
(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	See Below	N/A	N/A	See Below	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Replaced one (1) Control Rod Drive (CRD). The replacement work was performed as follows -
1) Removed the existing CRD, 2) Installed replacement CRD, 3) Reinstalled existing cap screws, 4) Torqued the cap screws for the CRD flanged connection to the required torque values, 5) Performed pressure test on CRD flanged connection to confirm pressure boundary integrity. No evidence of leakage during the pressure test

<u>Core Location</u>	<u>CRD Removed Serial Number</u>	<u>Code Year And Addenda</u>	<u>CRD Replaced Serial Number</u>	<u>Code Year And Addenda</u>	<u>Year Built</u>
50-27	A8915	1971/-	A9026	1974/W75	1992

Notes -

- 1) CRD Serial No A8915 was installed under WO No CG 2401 at core location 50-27. Serial No A8915 CRD was removed and replacement CRD Serial No A9026 was installed under WO No KT 8902
- 2) New replacement cap screws installed under WO No CG 2401 for core location 50-27 were reinstalled when the CRD was replaced under WO No KT 8902



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

8 Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None
Test Pressure: 1021 Psig Test Temperature: 200° F
Component Design Pressure: 1250 Psig Temperature: 535° F

9. Remarks: N-2 Code Data Report for the replacement Control Rod Drive (CRD) is filed separately from this NIS-2 form

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Man
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
Date 8/16/94 Date 8-16-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 6-2-94 to 8-17-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

DM Hozgorth Commissions 9566W NBI
Inspector's Signature National Board, State, and Endorsements
Date 8-17-94



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

- 1. Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/28/84
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. Identification Of System: Control Rod Drive (CRD)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	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	7045	N/A	N/A	1974	Replaced	Yes, Code Class 1
CT&F	GE	A8983	N/A	N/A	1992	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7045. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results unacceptable
- 3) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A8983

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 7045, ASME Section III, Code Class 1, 1974 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A8983, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A8983



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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A8983

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 RAMCOE
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-18-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dan Haggart Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-29-94

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 Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A8983 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: 12/22/92 Signed GE - NEBG - NF & CM - QA By [Signature]
(NPT Certificate Holder) (SC QA Representative)

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPTN - 1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1
Design specification certified by 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 12/15, 1992 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

12/22, 1992
Date

[Signature]
Inspector's Signature

NC 1231, Ohio, WC 3686 PA
National Board, State, Province And No.

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

(47/98)

FORM N-2 (back)

1/11/70

Richard Smith

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

7/28/94

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

5. Seams: Long _____ H.T. 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 _____ (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 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.
(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)

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

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)

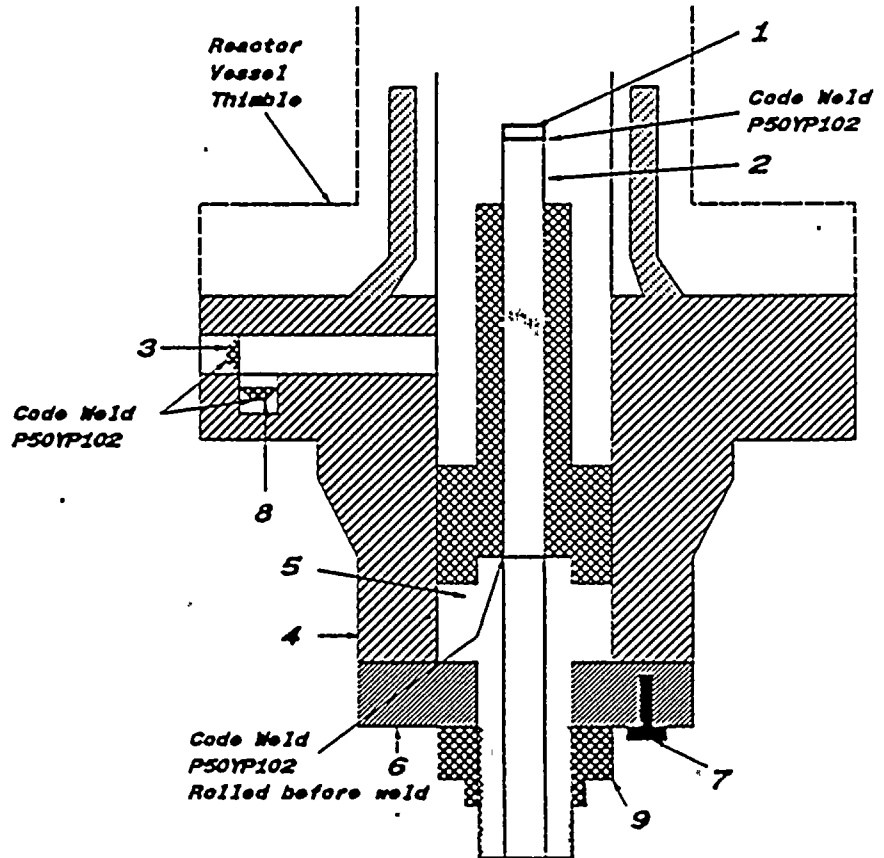
1 - If Postweld Heat-Treated.
 2 - List either internal or external pressure with coincident temperature when applicable.

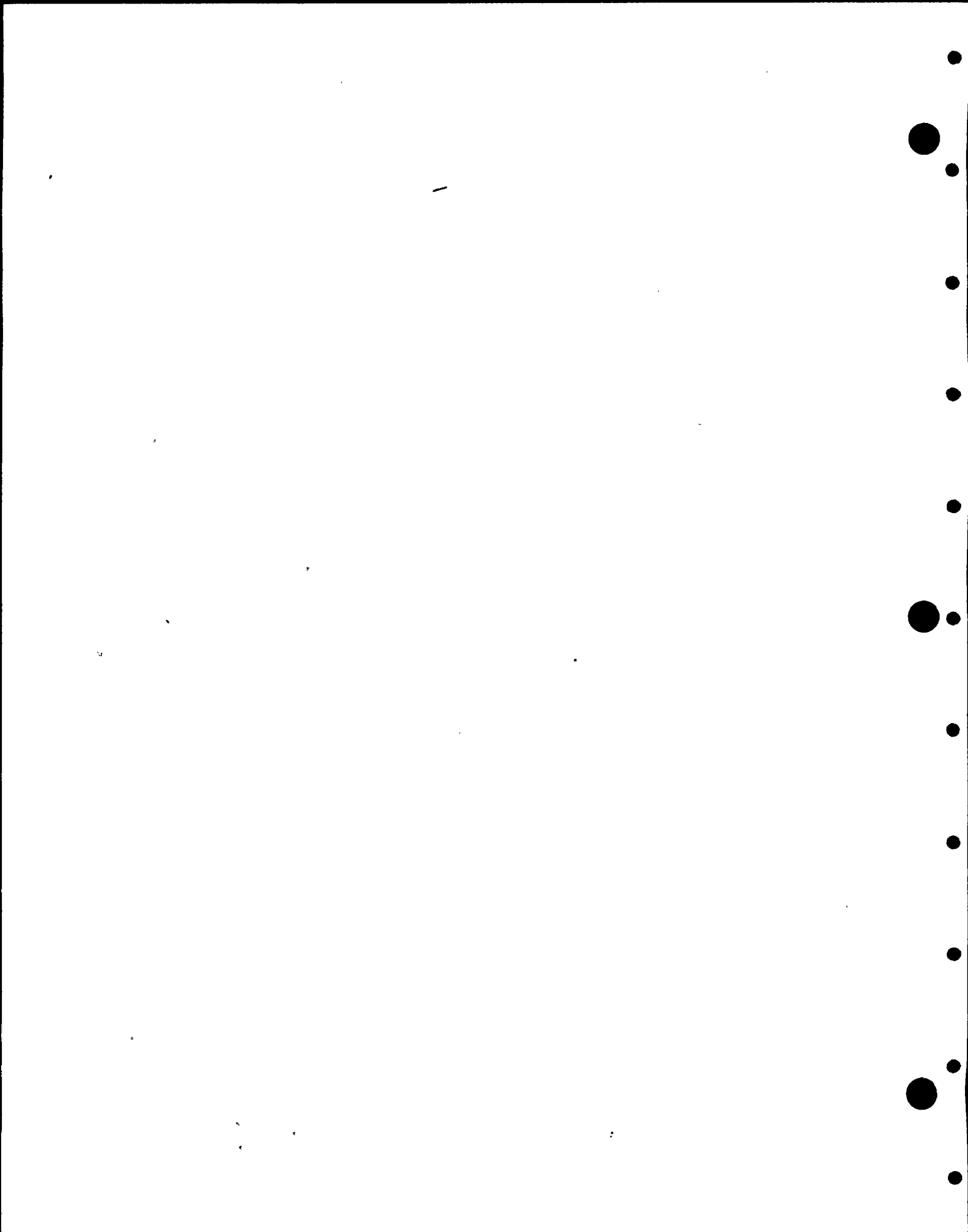
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

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 : A8983 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:** Washington Public Power Supply System (WPPSS) **Date:** 7/28/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
- 2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
- 3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
- 4. **Identification Of System:** Control Rod Drive (CRD)
- 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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 CT&F	GE GE	6690 A9126	N/A N/A	N/A N/A	1975 1991	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6690. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results unacceptable
- 3) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9126

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 6690, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A9126, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A9126



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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A9126

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-24-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Vagstad Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-29-94

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 : A9126 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 W'75 . Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

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: 11/18/91 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 11/15, 1991, 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.

11/18, 1991 [Signature] NC 1231, Ohio, WC 3686 PA
Date Inspector's Signature National Board, State, Province And No.

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

FORM N-2 (back)

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

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

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
 Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location (Top Bottom, Ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) _____	_____	_____	_____	_____	_____	_____	_____	_____
(b) _____	_____	_____	_____	_____	_____	_____	_____	_____

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

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. if bar give dimensions, if bolts, describe or sketch)

8. Design pressure 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 _____

3. 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)

Design pressure ² _____ psi at _____ ° F at temp of _____ ° F

Items below to be completed for all vessels where applicable.

Safety Valve Outlets: Number _____ Size _____ Location _____

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

Inspection Openings: Manholes, No. _____ Size _____ Location _____
 Handholes, No. _____ Size _____ Location _____
 Threaded, No. _____ Size _____ Location _____

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

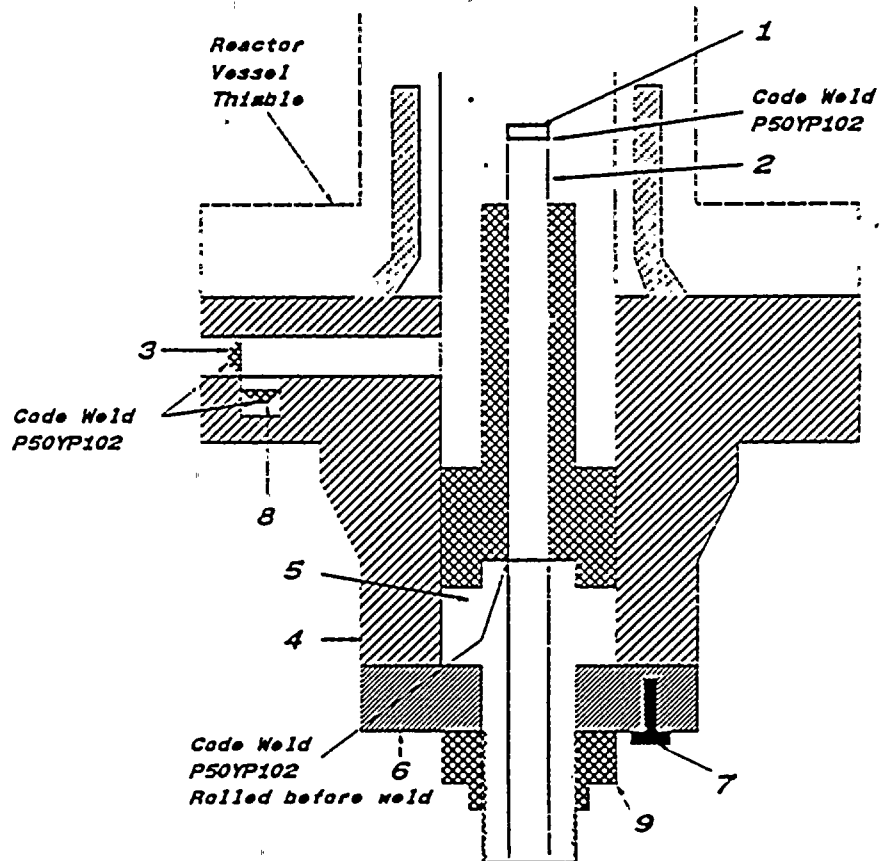
1 - If Postweld Heat-Treated.
 2 - List other internal or external pressure with coincident temperature when applicable.

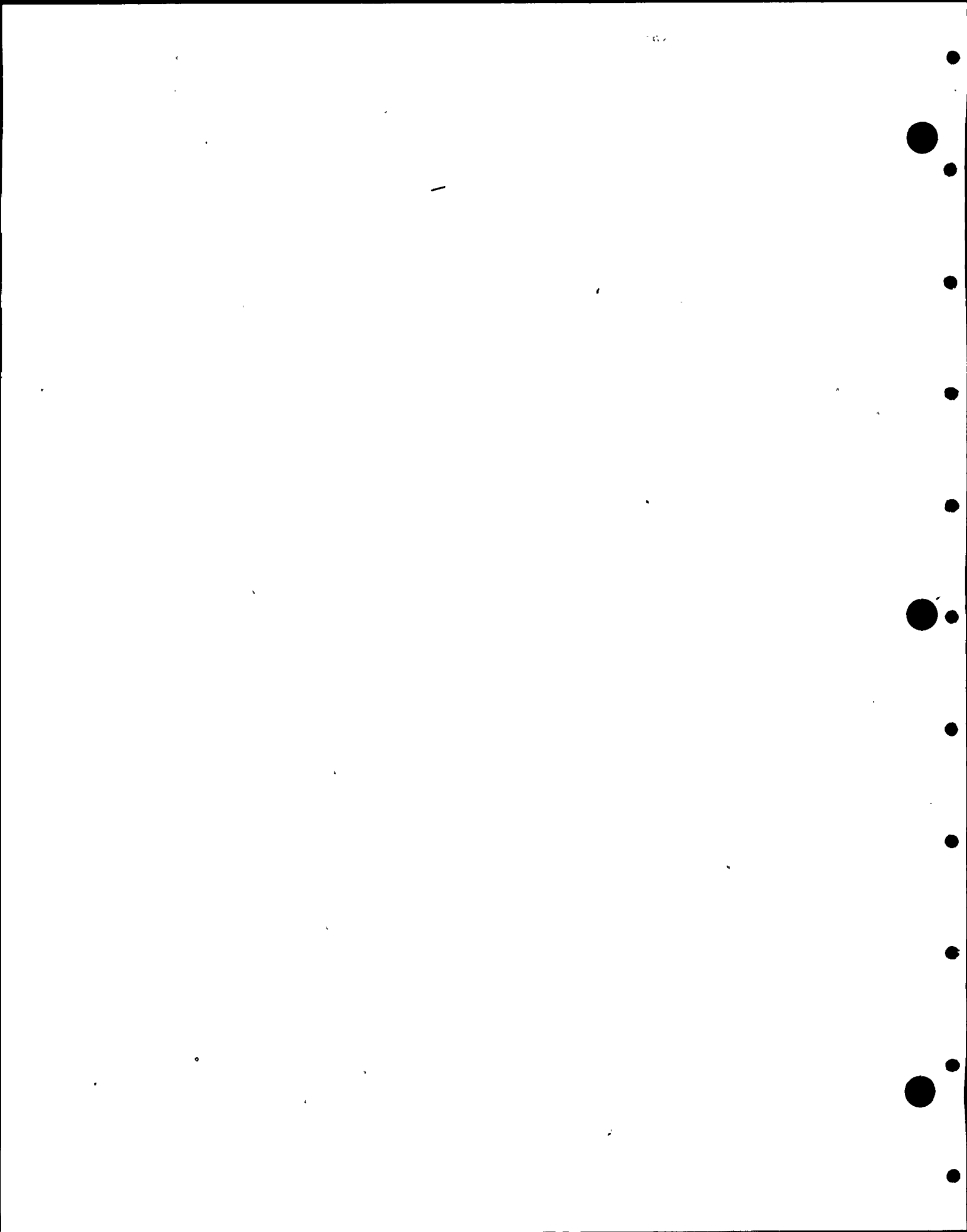
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

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 : A9126 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 W'75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

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

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Control Rod Drive (CRD)</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/28/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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 CT&F	GE GE	6260 A9346	N/A N/A	N/A N/A	1975 1992	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6260. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results unacceptable
- 3) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9346

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 6260, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A9346, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A9346



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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A9348

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-26-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Vaynshteyn Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements

Date 7-29-94

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)

(b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : A9346 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: 12/22/92 Signed GE - NEBG - NF & CM - QA By [Signature]
(NPT Certificate Holder) (SC QA Representative)

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPTN-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1
Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

DC22A6254 Rev 1
Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 12/19, 1992 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

12/22, 1992 [Signature] NC 1231, Ohio, WC 3686 PA
Date Inspector's Signature National Board, State, Province And No.

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

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers. 7/28/94

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ in.

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.)

7. Jacket Closure: _____ (Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

8. Design pressure 2 _____ psi at _____ F at temp of _____ F Drop Weight Charpy Impact _____ ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____ Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____

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.

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.)

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 _____

Table with 8 columns: Purpose (Inlet, Outlet, Drain), Number, Dia. or Size, Type, Material, Thickness, Reinforcement Material, How Attached

17. Inspection Openings: Handholes, No. _____ Size _____ Location _____ Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____

1 - If Postweld Heat-Treated.

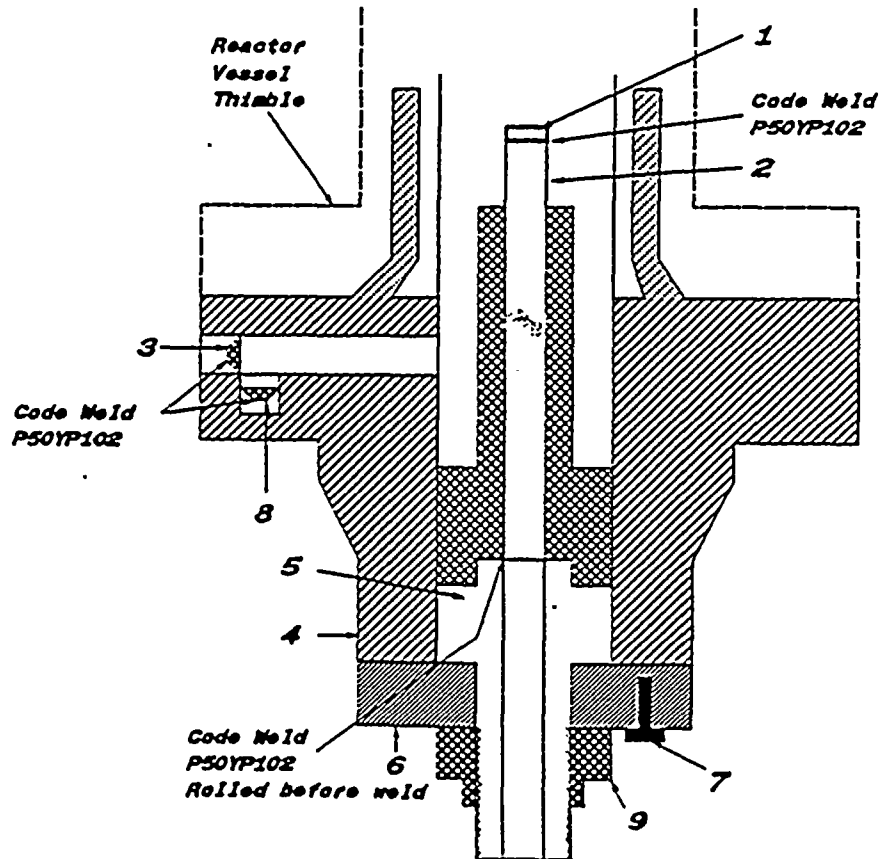
2 - List other internal or external pressure with coincident temperature when applicable.

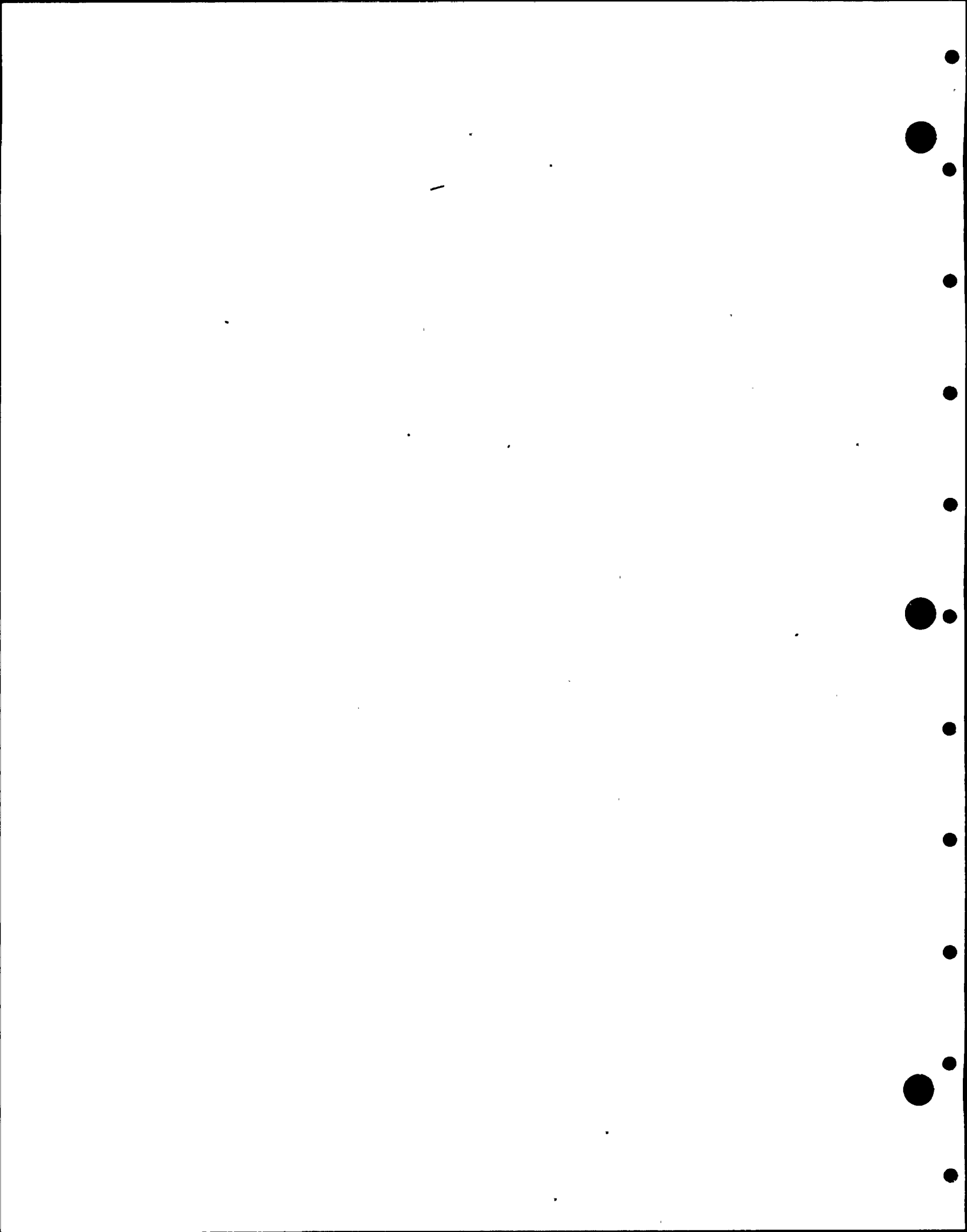
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
 As required by the Provision of the ASME Code Rules, Section III, Div. I

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 : A9346 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:** Washington Public Power Supply System (WPPSS)
Address: 3000 George Washington Way, Richland, Washington
- 2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
Address: Hanford Reservation, Benton County, Washington
- 3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
- 4. **Identification Of System:** Control Rod Drive (CRD)
- 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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Date: 7/29/94
Sheet: 1 of 1
Unit: WNP-2

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD CT&F	GE GE	7294 A8977	N/A N/A	N/A N/A	1975 1991	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7294. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results acceptable
- 3) Cylinder Tube And Flange (CT&F) assembly was rejected due to bad cooling water orifice port
- 4) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A8977

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 7294, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A8977, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A8977



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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A8977

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Dulain Singh Signed By R. M. O'Brien
 Kuldip Singh Materials And Inspection Manager, Materials And Inspection
 Date 7/29/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-23-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

D. J. Hyslop Commissions 9556W NBE
 Inspector's Signature National Board, State, and Endorsements
 Date 7-28-94

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 : A8977 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 W'75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

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: 11/18/91 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 1115, 1991, 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.

11/18, 1991 [Signature] NC 1231, Ohio, WC 3686 PA
Date Inspector's Signature National Board, State, Province And No.

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

FORM N-2 (back)

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

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

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
 Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location (Top Bottom, Ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) _____	_____	_____	_____	_____	_____	_____	_____	_____
(b) _____	_____	_____	_____	_____	_____	_____	_____	_____

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

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolts, describe or sketch)

8. Design pressure 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	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 _____

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

Inspection Openings: Manholes, No. _____ Size _____ Location _____
 Handholes, No. _____ Size _____ Location _____
 Threaded, No. _____ Size _____ Location _____

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

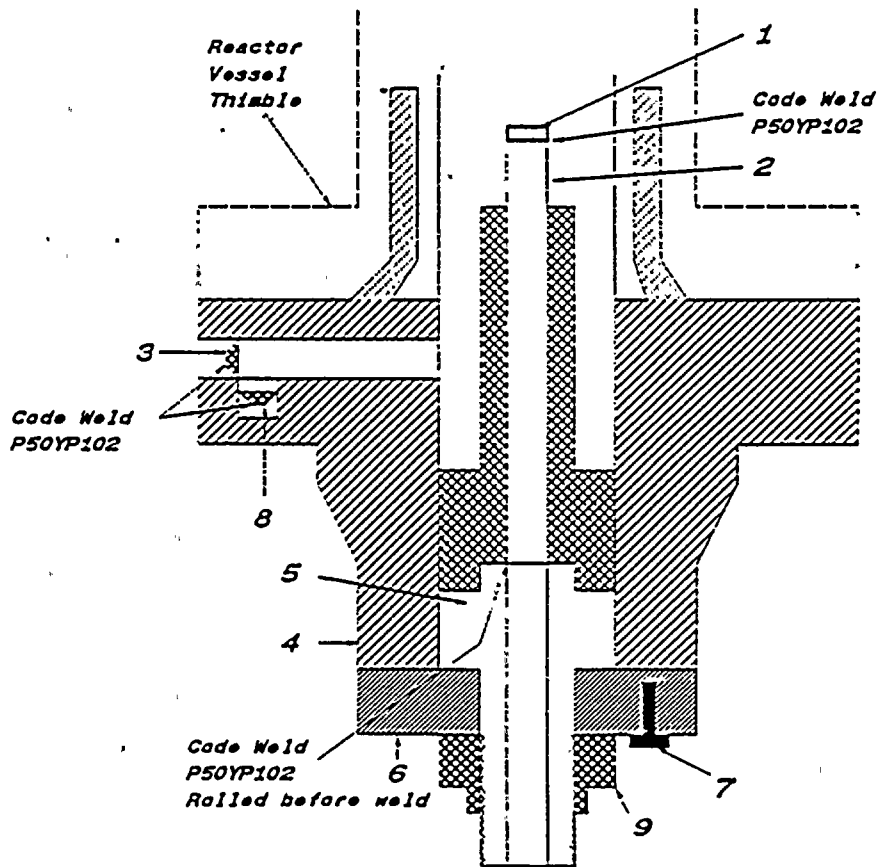
1 - If Postweld Heat-Treated.
 2 - List other internal or external pressure with coincident temperature when applicable.

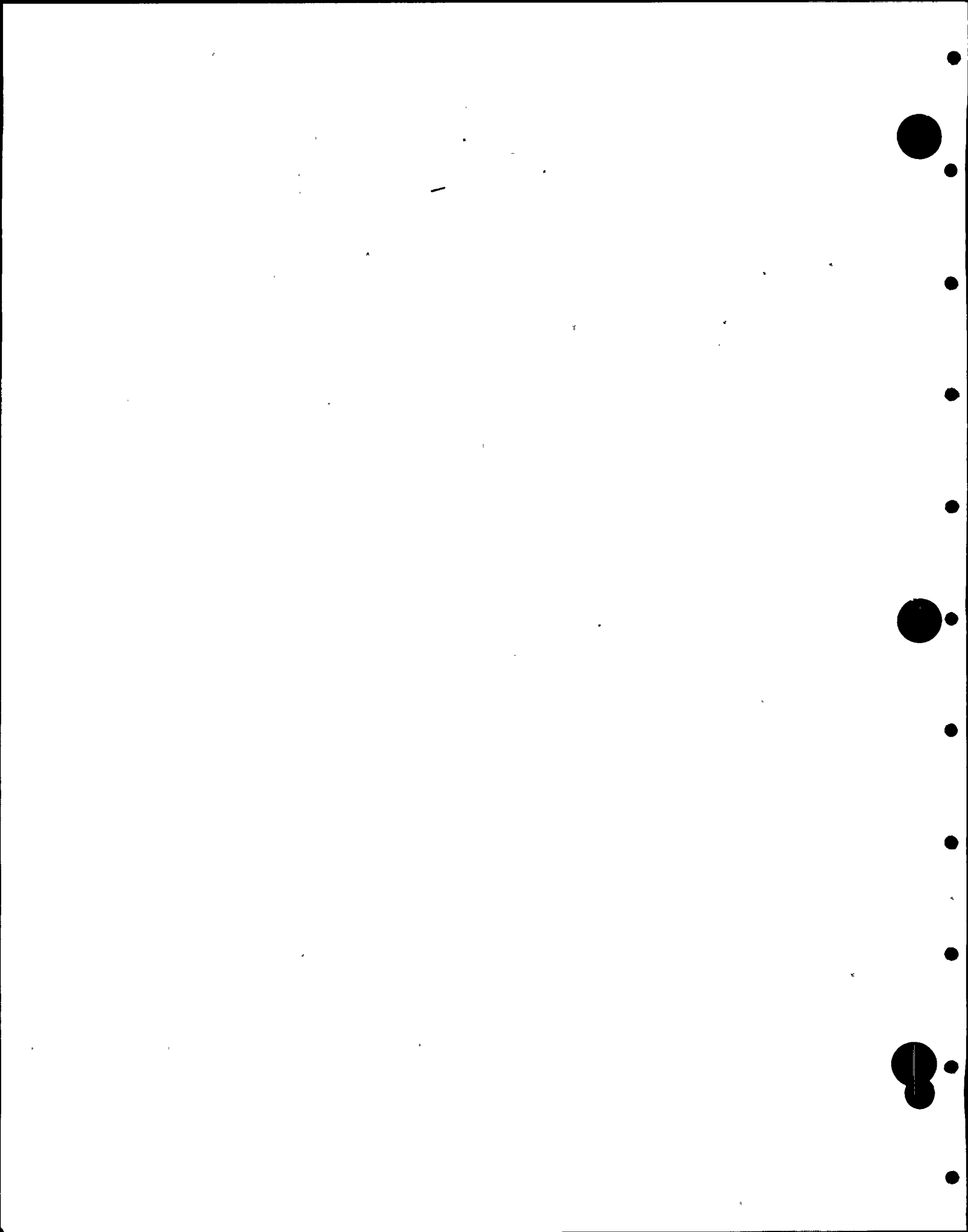
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

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 : A8977 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 W'75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

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:** Washington Public Power Supply System (WPPSS) **Date:** 7/28/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Control Rod Drive (CRD)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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 CT&F	GE GE	7279 A9026	N/A N/A	N/A N/A	1975 1992	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7279. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results unacceptable
- 3) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9026

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 7279, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A9026, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A9026



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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A9026

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 RT Maen
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-28-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dr. V. S. Senthil Commissions 9556 W NBE
 Inspector's Signature National Board, State, and Endorsements
 Date 7-29-94

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)

(b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : A9026 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: 12/22/92 Signed GE-NEBG-NF & CM-QA By [Signature]
(NPT Certificate Holder) (SC QA Representative)

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPTN-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

QC22A6253 Rev. 1
Design specification certified by Blom Haaberg Prof. Eng. State Calif. Reg. No. 15570

QC22A6254 Rev 1
Stress analysis report certified by Edward Yoshio Prof. Eng. State Calif. Reg. No. M018646

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 12/16, 1992 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.
By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

12/22, 1992 [Signature] NC 1231, Ohio, WC 3686 PA
Date Inspector's Signature National Board, State, Province And No.

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

FORM N-2 (back)

S/N A9026

Kuldeep Singh

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

7/28/94

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

5. Seams: Long _____ H.T. 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)

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, Bonded)

Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

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

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

12. Seams: Long _____ H.T. 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)

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 _____

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

17. Inspection Openings: Manholes, No. _____ Size _____ Location _____
 Handholes, No. _____ Size _____ Location _____
 Threaded, No. _____ Size _____ Location _____

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

1 - If Postweld Heat-Treated.

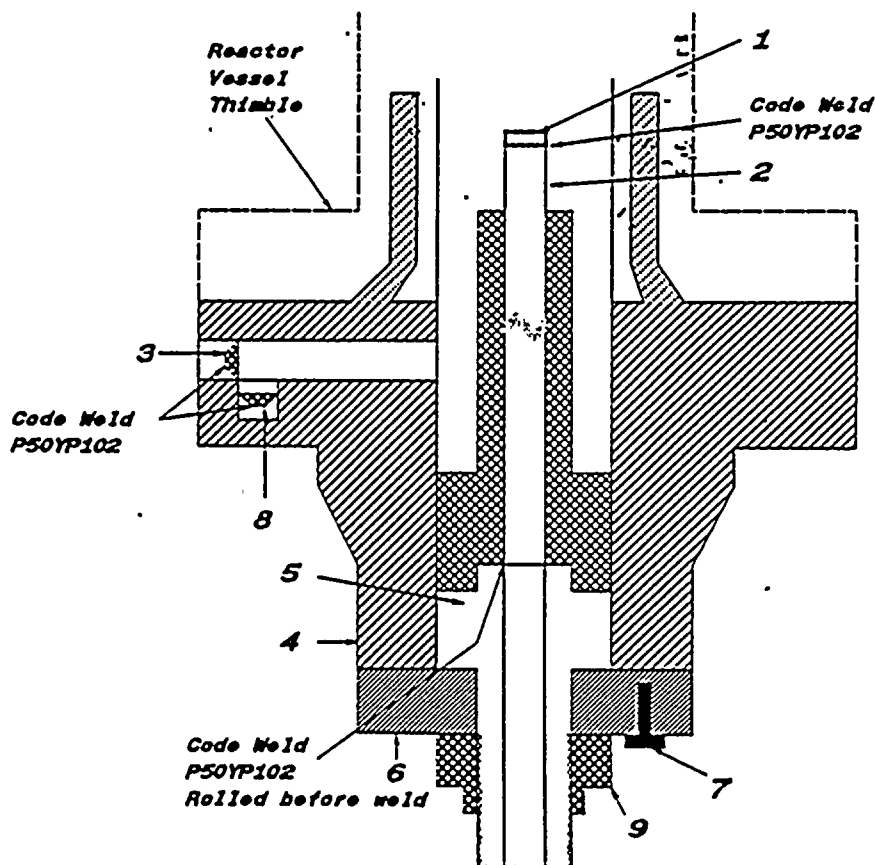
2 - List other internal or external pressure with coincident temperature when applicable.

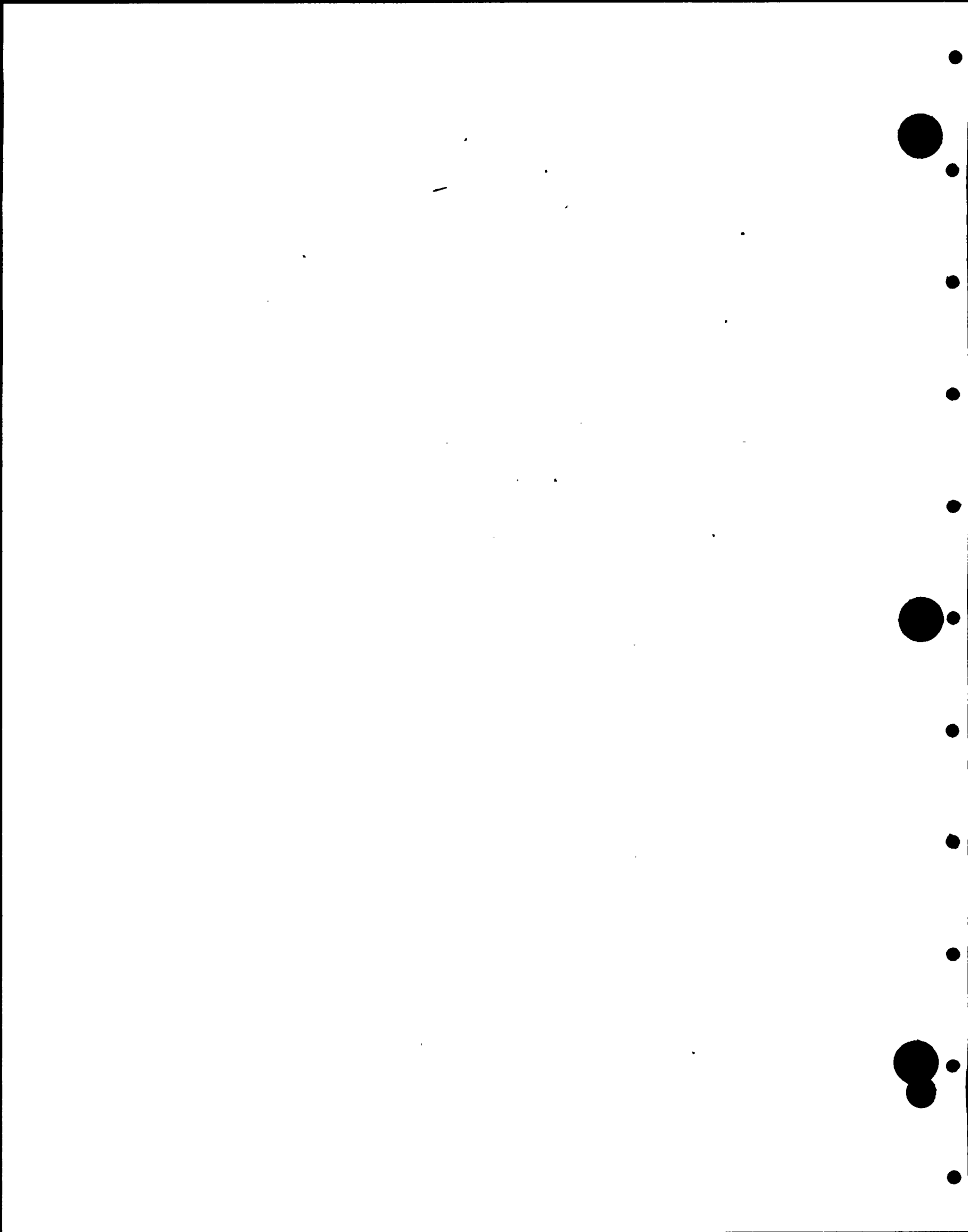
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
 As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
 (Name and Address of NPT Certificate Holder)
 - (b) Manufactured for : WNP 2 Richland, Washington 99352
 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9026 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

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Control Rod Drive (CRD)</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/28/94
 Sheet: 1 of 1
 Unit: WNP-2</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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 CT&F	GE GE	6697 A9161	N/A N/A	N/A N/A	1975 1991	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6697. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results unacceptable
- 3) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9161

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 6697, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A9161, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A9161



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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A9161

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 [Signature]
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-22-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 9536 W NBI
Inspector's Signature National Board, State, and Endorsements
Date 7-29-94

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 : A9161 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 W'75, Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

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: 11/18/91

Signed GE - NEBG - NF & CM - QA
(NPT Certificate Holder)

By [Signature]
(SC OR 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 11/15, 1991 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.

11/18, 1991
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 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)

9. 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

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

4. 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.

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	Concial Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
1) Top, bottom, ends	_____	_____	_____	_____	_____	_____	_____	_____
2) Channel	_____	_____	_____	_____	_____	_____	_____	_____

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

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.

Safety Valve Outlets: Number _____ Size _____ Location _____

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

Inspection Openings: Manholes, No. _____ Size _____ Location _____
 Handholes, No. _____ Size _____ Location _____
 Threaded, No. _____ Size _____ Location _____

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

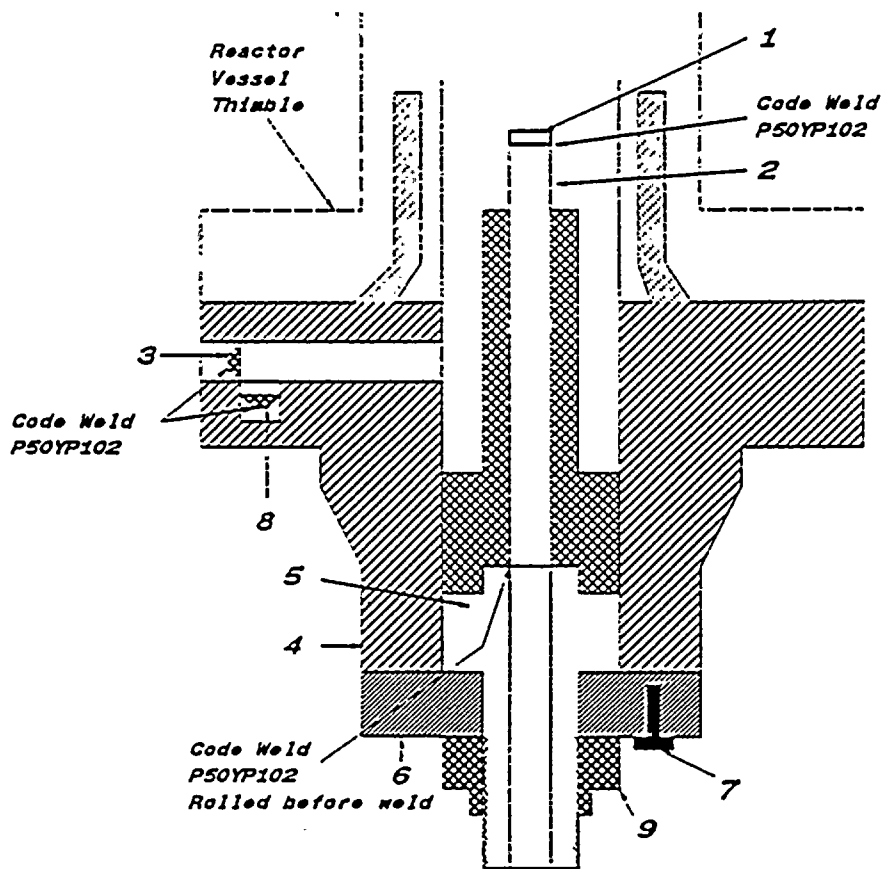
1 - If Postweld Heat-Treated.
 2 - List other internal or external pressure with coincident temperature when applicable.

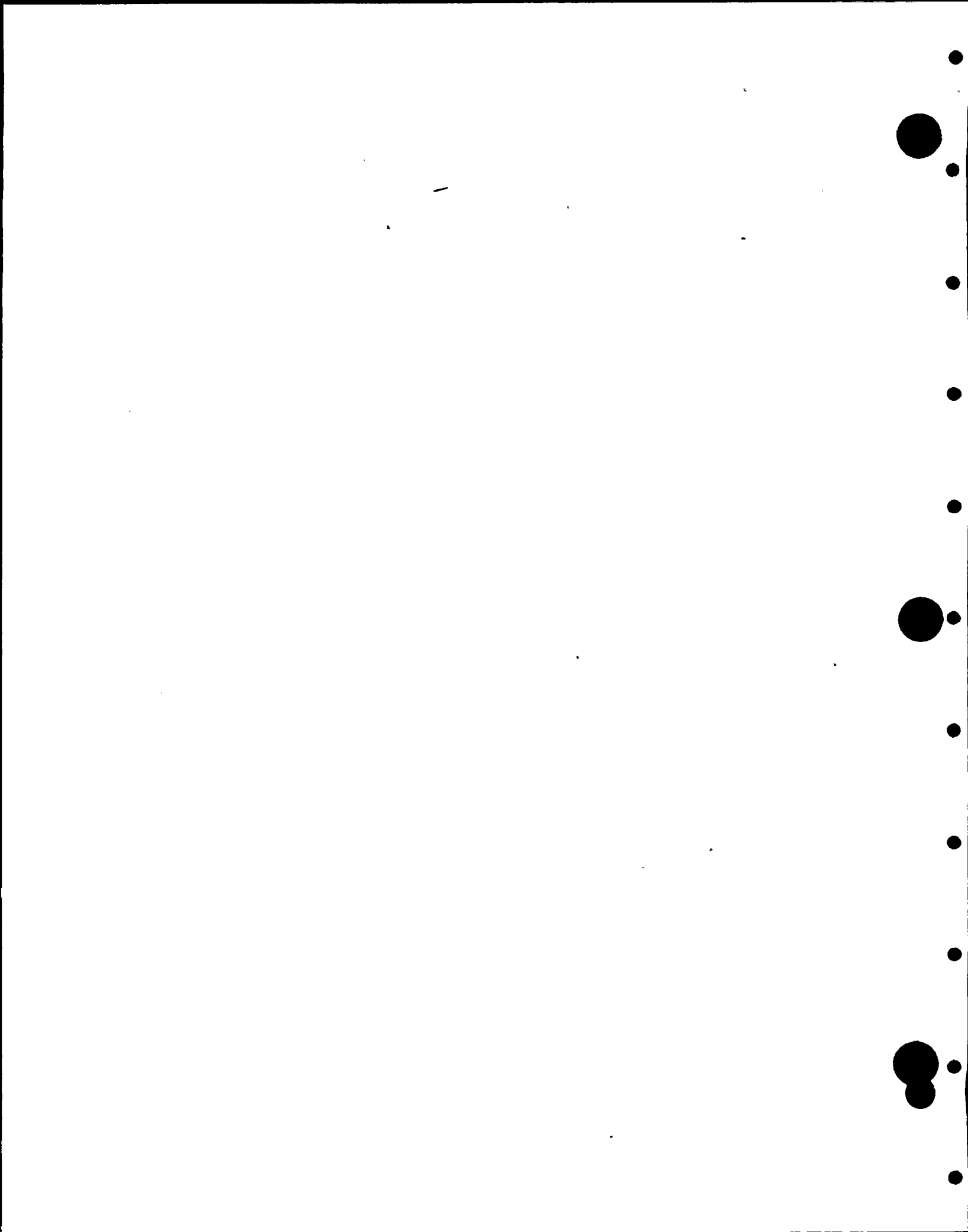
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

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 : A9161 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 W'75, Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi min.
(Brief description of service for which component was designed)

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:** Washington Public Power Supply System (WPPSS) **Date:** 7/28/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Control Rod Drive (CRD)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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 CT&F	GE GE	6778 A9333	N/A N/A	N/A N/A	1975 1992	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6778. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results unacceptable
- 3) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9333

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 6778, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A9333, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A9333



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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A9333

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. A. Man
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-26-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Jan Vaggart Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-29-94

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 : A9333 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: 12/22/92 Signed GE - NEBG - NF & CM - QA By [Signature]
 (NPT Certificate Holder) (SC QA Representative)

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPTN - 1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California
 Stress analysis report on file at GE Company, San Jose, California
 DC22A6253 Rev. 1
 Design specification certified by 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 12/18, 1992 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.
 By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

12/22, 1992 Date [Signature] Inspector's Signature NC 1231, Ohio, WC 3686 PA National Board, State, Province And No.

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

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

7/28/54

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

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location (Top Bottom, Ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Concial Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)

(a) _____
(b) _____
If removable, bolts used _____ Other fastening _____

(Material, Spec. No., T.S. Stre 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.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
Girth _____ H.T. _____ R.T. _____ No. of Courses _____

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

Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Concial Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.)

(a) Top, bottom, ends _____
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____

(Describe or attach sketch)

14. Design pressure 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 Openings: Manholes, No. _____ Size _____ Location _____
Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

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

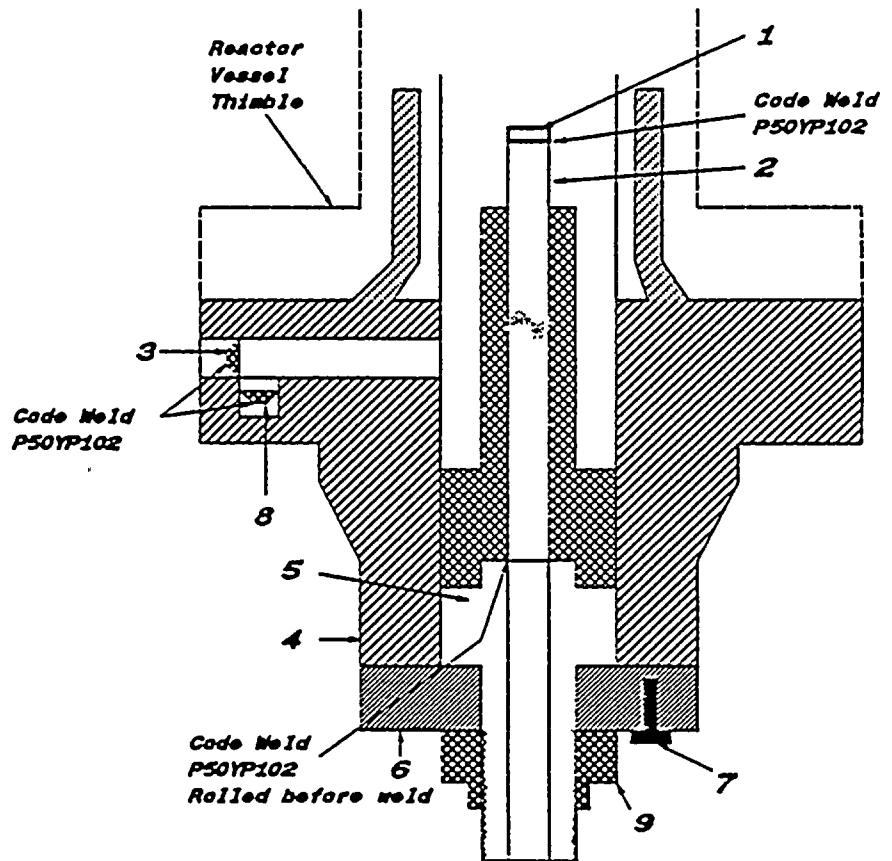
1 - If Postweld Heat-Treated.
2 - List other internal or external pressure with coincident temperature when applicable.

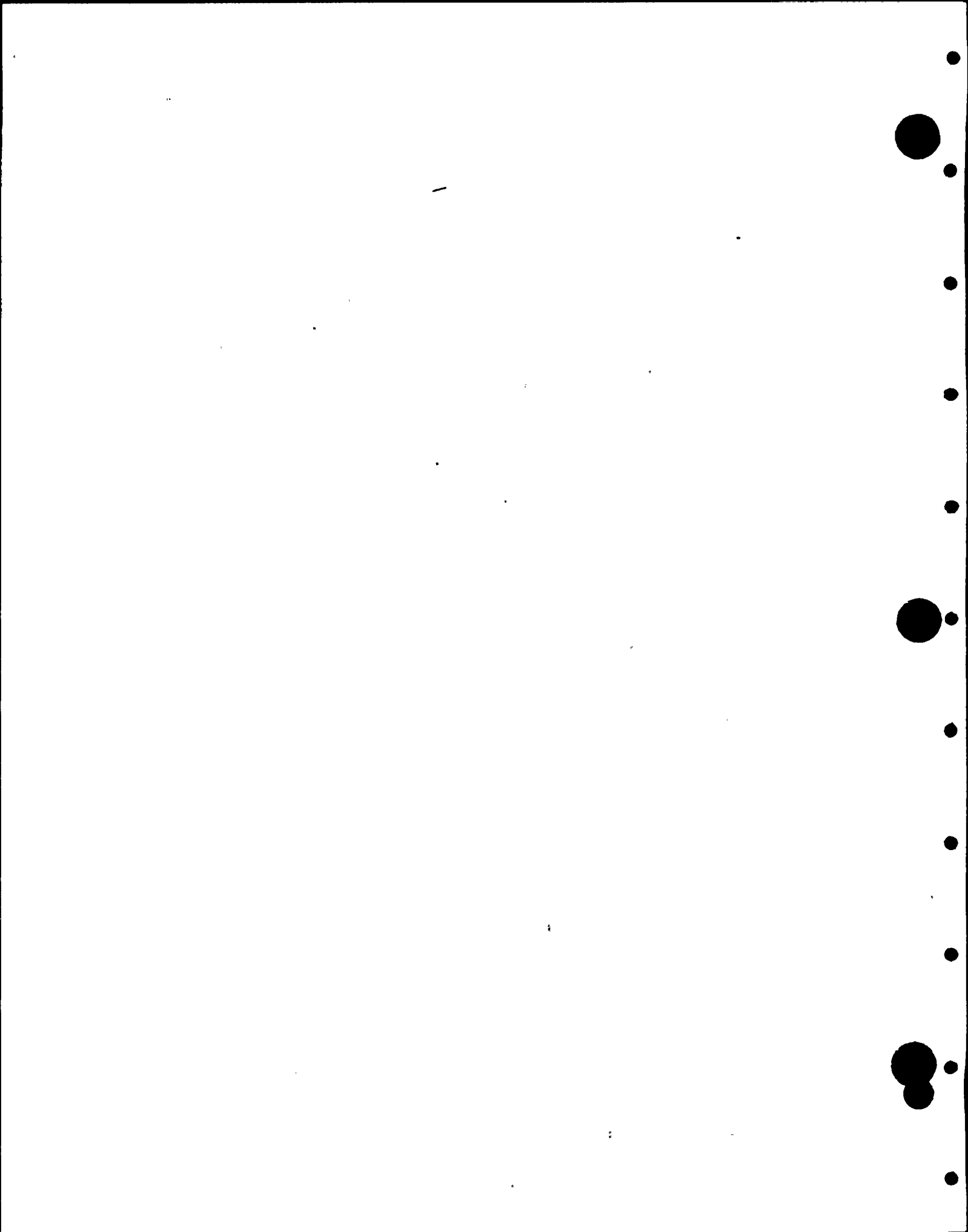
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
 - (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : A9333 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:** Washington Public Power Supply System (WPPSS) **Date:** 7/28/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. **(a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Control Rod Drive (CRD)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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 Piston Tube	GE	7330	N/A	N/A	1975	Replacement	Yes, Code Class 1
	GE	3179	N/A	N/A	1985	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7330. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results acceptable
- 3) Performed visual examination on the existing Piston Tube assembly. Visual examination results unacceptable
- 4) Reassembled Control Rod Drive (CRD) parts and installed new Piston Tube assembly Serial No 3179

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 7330, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Piston Tube assembly Serial No 3179, ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda



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

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

9. Remarks: See attached N-2 Code Data Report for the new Piston Tube assembly Serial No 3179

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 BT Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-26-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Haggard Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements

Date 7-29-94

As required by the Provision of the ASME Code Rules, Section III, Div. 1

1. (a) Manufactured by General Electric Co., Castle Hayne Rd., Wilmington, N.C.
(Name and address of NPT Certificate Holder)

(b) Manufactured for —STOCK— WNP-2
(Name and address of N Certificate Holder for completed nuclear component)

2. Identification-Certificate Holder's Serial No. of Part 3179 Nat'l Bd. No. NA

(a) Constructed According to Drawing No. 798D228G010 Drawing Prepared by D. L. Peterson

(b) Description of Part Inspected Piston Tube Assembly

(c) Applicable ASME Code: Section III, Edition 1971, Addenda date S'73, Case No. — Class 1

3. Remarks: Standard part for use with reactor.
(Brief description of service for which component was designed)
Hydrostatically tested at 1825 psi.

* Number of Sheets - 2

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

Date 4-17 19 85 Signed GE-NEPD-WMD By J. Estroff
(NPT Certificate Holder)

Certificate of Authorization Expires June 16, 1987 Certificate of Authorization No. NPT N-1151

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.

Stress analysis report on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.

Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 4/19 19 85, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

Date 4/19 19 85
Ed Shevill
Inspector's Signature

N.C. 723.PA.WC1766, OHIO
Commissions National Board, State, Province and No.

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. (Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ S/N 3179

Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____ Kularp 11/17/85

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

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

(a) _____ (b) _____

If removable, bolts used _____ 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 _____ (Number or U)

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

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

12. Seams: Long _____ H.T.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: Table with columns: Purpose (Inlet, Outlet, Drain), Number, Size 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. Support: Skirt _____ (Yes or No) _____ (Number) _____ Legs _____ (Number) _____ Other _____ (Describe) _____ Attached _____ (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:** Washington Public Power Supply System (WPPSS) **Date:** 7/28/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
- 2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
- 3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
- 4. **Identification Of System:** Control Rod Drive (CRD)
- 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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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 Piston Tube	GE	7144	N/A	N/A	1975	Replacement	Yes, Code Class 1
	GE	3215	N/A	N/A	1985	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7144. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results acceptable
- 3) Performed visual examination on the existing Piston Tube assembly. Visual examination results unacceptable
- 4) Reassembled Control Rod Drive (CRD) parts and installed new Piston Tube assembly Serial No 3215

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 7144, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Piston Tube assembly Serial No 3215, ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda



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

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

9. Remarks: See attached N-2 Code Data Report for the new Piston Tube assembly Serial No 3215

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Amos
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-25-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

D. M. Bergant Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-29-94

1. (a) Manufactured by General Electric Co., Castle Hayne Rd., Wilmington, N.C.
(Name and address of NPT Certificate Holder)

(b) Manufactured for STOCK WNP-2
(Name and address of N Certificate Holder for completed nuclear component)

Identification-Certificate Holder's Serial No. of Part 3215 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No. 798D228G010 Drawing Prepared by D. L. Peterson

(b) Description of Part Inspected Piston Tube Assembly

(c) Applicable ASME Code: Section III, Edition 1971, Addenda date S'73, Case No. --- Class 1

3. Remarks: Standard part for use with reactor.
(Brief description of service for which component was designed)
Hydrostatically tested at 1825 psi.

* Number of Sheets - 2

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

Date 5 / 31 / 19 85 Signed GE-NEPD-WMD By J. Ettrude
(NPT Certificate Holder)

Certificate of Authorization Expires June 16, 1987 Certificate of Authorization No. NPT-N-3351

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.

Stress analysis report on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.

Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488

CERTIFICATE OF SHOP INSPECTION.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this

Partial Data Report on 6/6 19 85 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

Date 6/6 19 85

E. P. Sherrill
Inspector's Signature

Commissions N.C. 723, PA.WC1766, OHIO
National Board, State, Province and No.

* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 4W" 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".

11-14 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.
(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 *S/N: 3215*

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

(a)
(b)

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

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

8. Design 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
(S. or U)

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

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

12. Seams: Long H.T.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 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:** Washington Public Power Supply System (WPPSS) **Date:** 7/28/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
4. Identification Of System: Control Rod Drive (CRD)
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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	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 CT&F	GE GE	7126 A9100	N/A N/A	N/A N/A	1975 1992	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7126. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results unacceptable
- 3) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9100

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 7126, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A9100, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A9100



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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A9100

CERTIFICATE OF COMPLIANCE

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

Prepared By Kuldip Singh - Materials And Inspection Signed By R. Moe - Manager, Materials And Inspection
Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-28-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Inspector's Signature Date 7-29-94
Commissions 9556 W NBI
National Board, State, and Endorsements

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)

(b) Manufactured for : 'WNP 2 Richland, Washington 99352
(Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/M of Part : A9100 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: 12/22/92 Signed GE-NEBG-NF & CM-QA By [Signature]
(NPT Certificate Holder) (SC QA Representative)

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPTN-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1
Design specification certified by 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 12/16, 1992 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

12/22, 1992 [Signature] NC 1231, Ohio, WC 3686 PA
Date Inspector's Signature National Board, State, Province And No.

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

FORM N-2 (back)

S/N A 9100

Rudolph Rupp

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

7/28/94

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 _____ ft-lb
Charpy Impact _____
8. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Dia. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
- Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____
10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

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

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____
- (Kind & Spec. No.) (Min. of Range Specified)
12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____
Girth _____ H.T. _____ R.T. _____ No. of Courses _____
13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
- | | Location | Thickness | Crown Radius | Knuckle Radius | Elliptical Ratio | Conical Apex Angle | Hemispherical Radius | Flat Diameter | Side to Press. (conv. or conc.) |
|-----------------------|----------|-----------|--------------|----------------|------------------|--------------------|----------------------|---------------|-----------------------------------|
| (a) Top, bottom, ends | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| (b) Channel | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
- If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)
- Drop Weight _____ ft-lb
Charpy Impact _____
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.

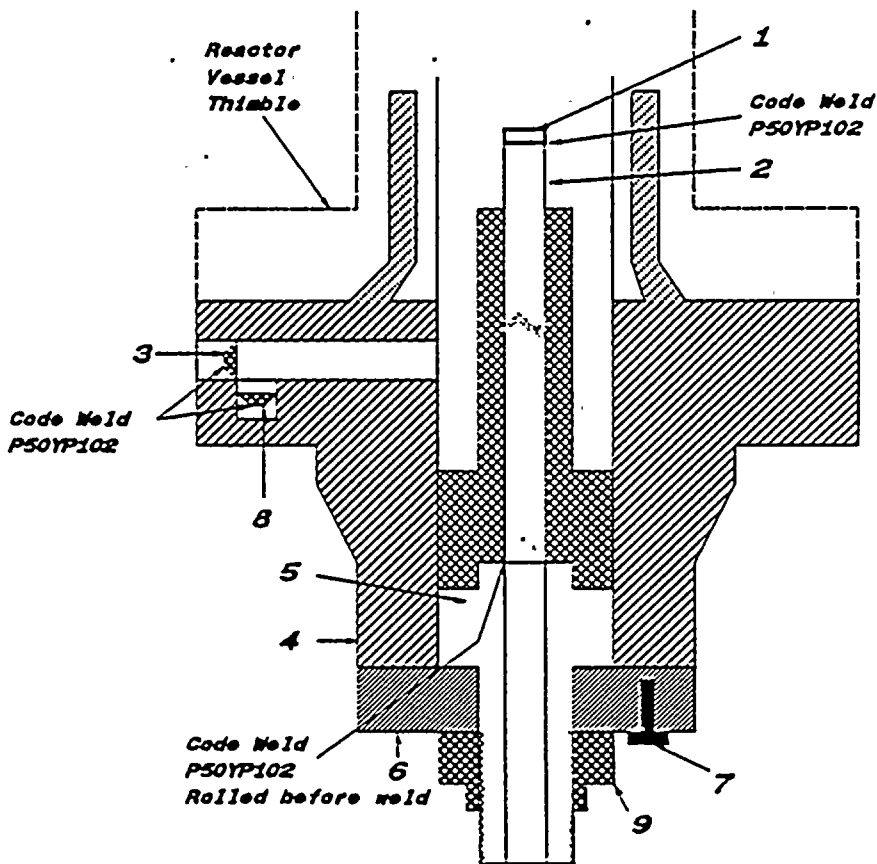
2 - List other internal or external pressure with coincident temperature when applicable.

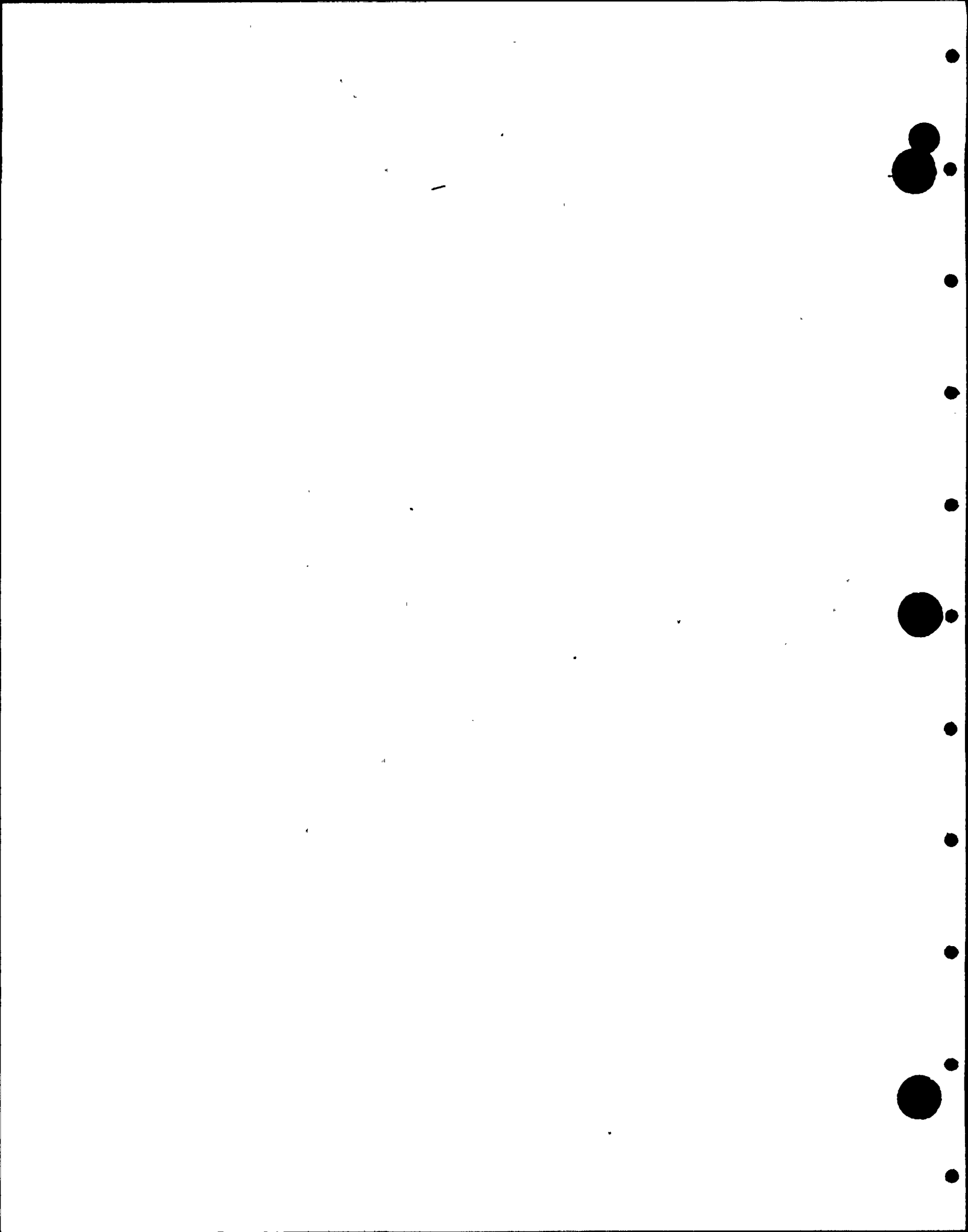
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
 As required by the Provision of the ASME Code Rules, Section III, Div. I

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 : A9100 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:** Washington Public Power Supply System (WPPSS) **Date:** 7/28/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
- 2. Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
- 3. (a) Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
(b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)
- 4. Identification Of System:** Control Rod Drive (CRD)
- 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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308
- 6. Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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 CT&F	GE GE	6731 A8896	N/A N/A	N/A N/A	1975 1991	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6731. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results unacceptable
- 3) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A8896

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 6731, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A8896, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A8896



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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A8896

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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: R. Man
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date: 7/28/94 Date: 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-19-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Hoggarth Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-29-94

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)

a) 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 : A8896 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: 06/14/91 Signed GE-NEEG-NF & CM-OA By [Signature]
(NPT Certificate Holder) (SC 2A 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

QC22A6253 Rev. 1
Design specification certified by Bjom Haaberg Prof. Eng. State Calif. Reg. No. 15570

QC22A6254 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 6/16, 1991 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.

6/14, 1991 Bjorn P. Evers NC 1231, Ohio
Date Inspector's Signature National Board, State, Province And No.

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

Dularip Sup's
12/12/91

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, Soldered)

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.

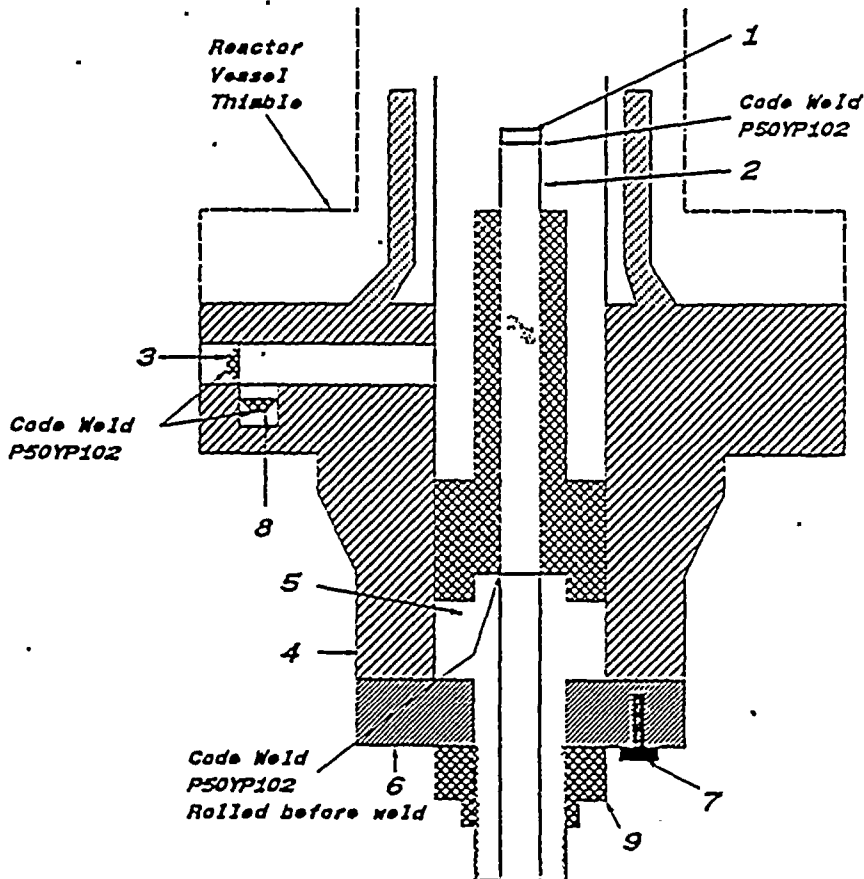
2 - List other internal or external pressure with coincident temperature when applicable.

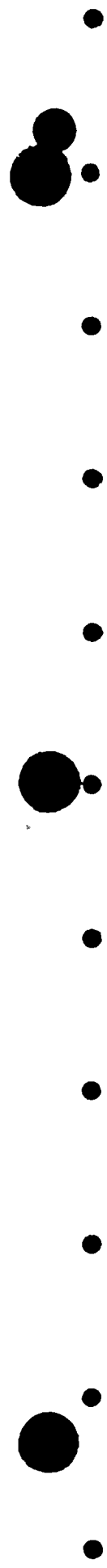
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES
As required by the Provision of the ASME Code Rules, Section III, Div. I

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 : A8896 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 W'75 , Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

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
137C3151P001, 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:** Washington Public Power Supply System (WPPSS) **Date:** 7/28/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Control Rod Drive (CRD)
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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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 CT&F	GE GE	6631 A8913	N/A N/A	N/A N/A	1975 1991	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6631. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results acceptable
- 3) Cylinder Tube And Flange (CT&F) assembly was rejected due to bad cooling water orifice port
- 4) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A8913

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 6631, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A8913, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A8913



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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A8913

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Rudip Singh Signed By R. T. Moore
 Kuldip Singh Materials And Inspection Manager, Materials And Inspection
 Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-20-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Voggarth Commissions 9556W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-29-94

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 : A8913 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: 06/14/91

Signed GE - NEEG - 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

OC22A6253 Rev. 1

Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

OC22A6254 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 6/14, 1991 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.

6/14, 1991
Date

[Signature]
Inspector's Signature

NC 1231, Ohio
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)

Rudolf Suis
12/12/91

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 _____

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

17. Inspection Openings: Manholes, No. _____ Size _____ Location _____
Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

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

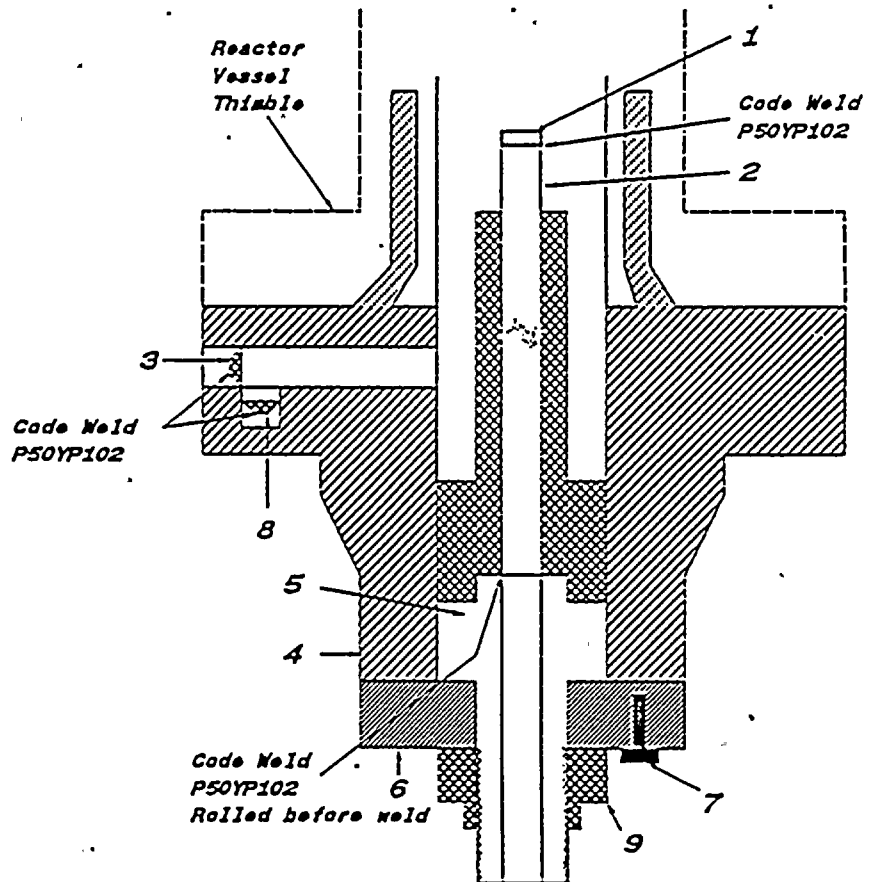
1 - If Postweld Heat-Treated.
2 - List other internal or external pressure with coincident temperature when applicable.

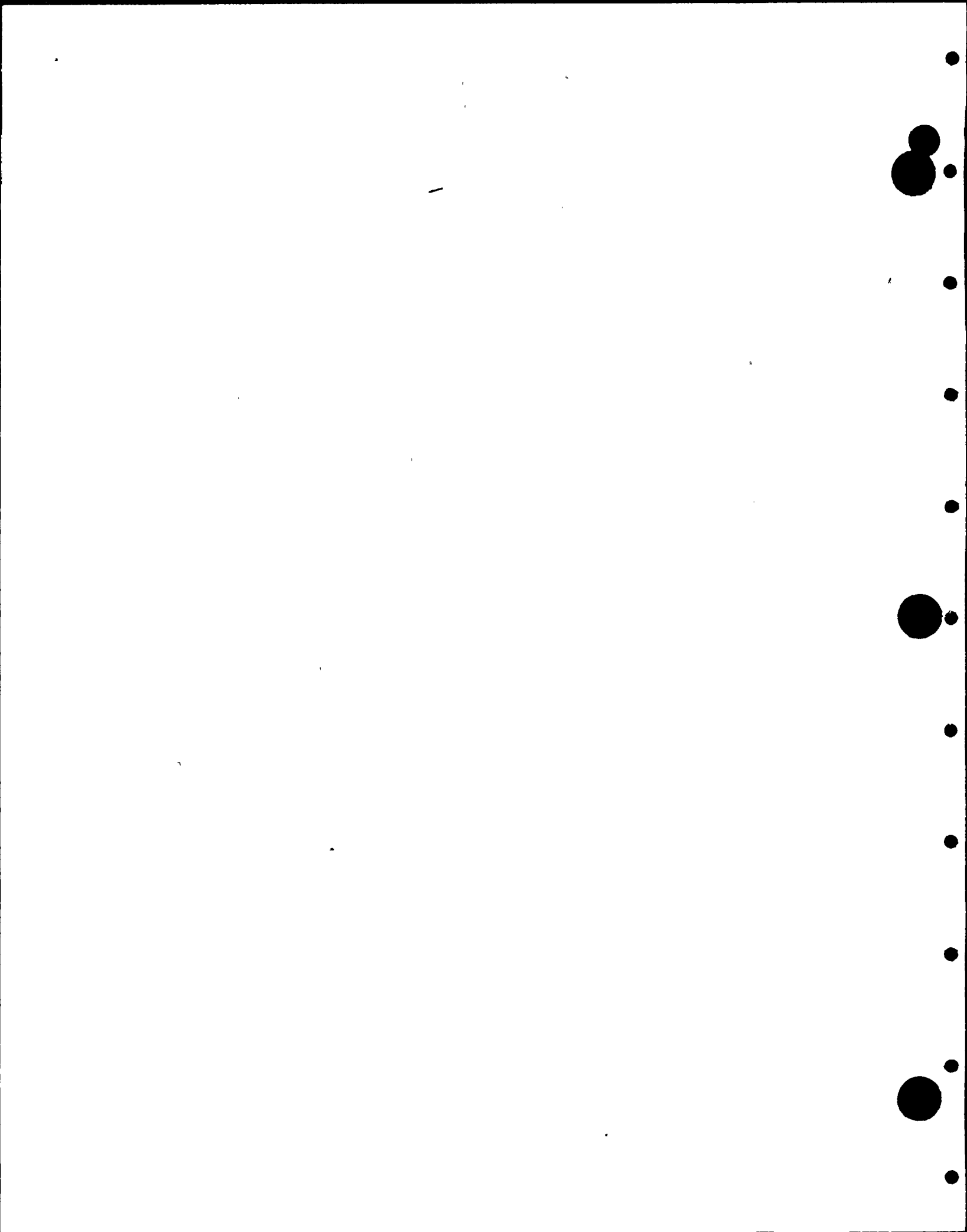
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401
(Name and Address of NPT Certificate Holder)
- (b) Manufactured for : WNP 2 Richland, Washington 99352
(Name and Address of Certificate Holder for completed nuclear component)
- 2: Identification - Certificate Holder's S/N of Part : A8913 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
137C3151P001, 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

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <p>1. Owner: Washington Public Power Supply System (WPPSS)
 Address: 3000 George Washington Way, Richland, Washington</p> <p>2. Plant: Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP)
 Address: Hanford Reservation, Benton County, Washington</p> <p>3. (a) Work Performed By: Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) Repair Organization P.O. No, Job No, etc.: Washington Public Power Supply System (WPPSS)</p> <p>4. Identification Of System: Control Rod Drive (CRD)</p> <p>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: 1980 Edition with Winter 1980 Addenda, Code Case: N-308</p> <p>6. Identification Of Components Repaired Or Replaced And Replacement Components</p> | <p>Date: 7/28/94</p> <p>Sheet: 1 of 1</p> <p>Unit: WNP-2</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|

Name Of Component	Name Of Manufacturer	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 CT&F	GE GE	6736 A9120	N/A N/A	N/A N/A	1975 1991	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6736. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results unacceptable
- 3) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9120

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 6736, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A9120, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A9120



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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A9120

CERTIFICATE OF COMPLIANCE

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

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

Prepared By Kuldip Singh Signed By R. Arora
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection
 Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-24-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Dr. V. G. ... Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements
 Date 7-29-94

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 : A9120 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 W'75, Case No. N207 1361-2 Class 1
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
(Brief description of service for which component was designed)

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: 11/18/91 Signed GE - NEBG - NF & CM - OA 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

OC22A6253 Rev. 1
Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

OC22A6254 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 11/15, 1991 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.

11/18, 1991 [Signature] NC 1231, Ohio, WC 3686 PA
Date Inspector's Signature National Board, State, Province And No.

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

FORM N-2 (back)

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

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Dia. _____ ft. _____ in. Length _____ ft. _____ 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 _____
(Str. or U)

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

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

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ %
 Girth _____ H.T. _____ R.T. _____ No. of Courses _____

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

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) Top, bottom, ends	_____	_____	_____	_____	_____	_____	_____	_____
(b) Channel	_____	_____	_____	_____	_____	_____	_____	_____

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

Drop Weight _____
 Charpy Impact _____ ft-lb

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F

Items 15-18 below to be completed for all vessels where applicable.

Safety Valve Outlets: Number _____ Size _____ Location _____

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

Inspection Openings: Manholes, No. _____ Size _____ Location _____
 Handholes, No. _____ Size _____ Location _____
 Threaded, No. _____ Size _____ Location _____

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 : A9120 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 W'75, Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
 (Brief description of service for which component was designed)

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

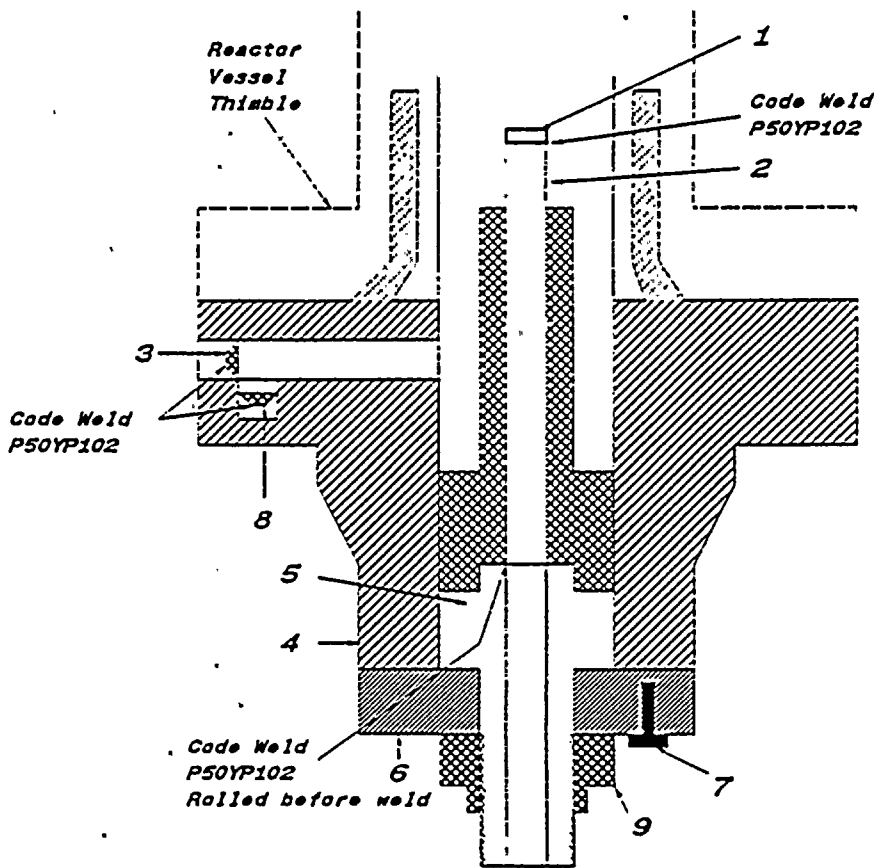
5. Base 137C5311P001
 SA182 - F304
 7/8" thick x 2.875" dia.

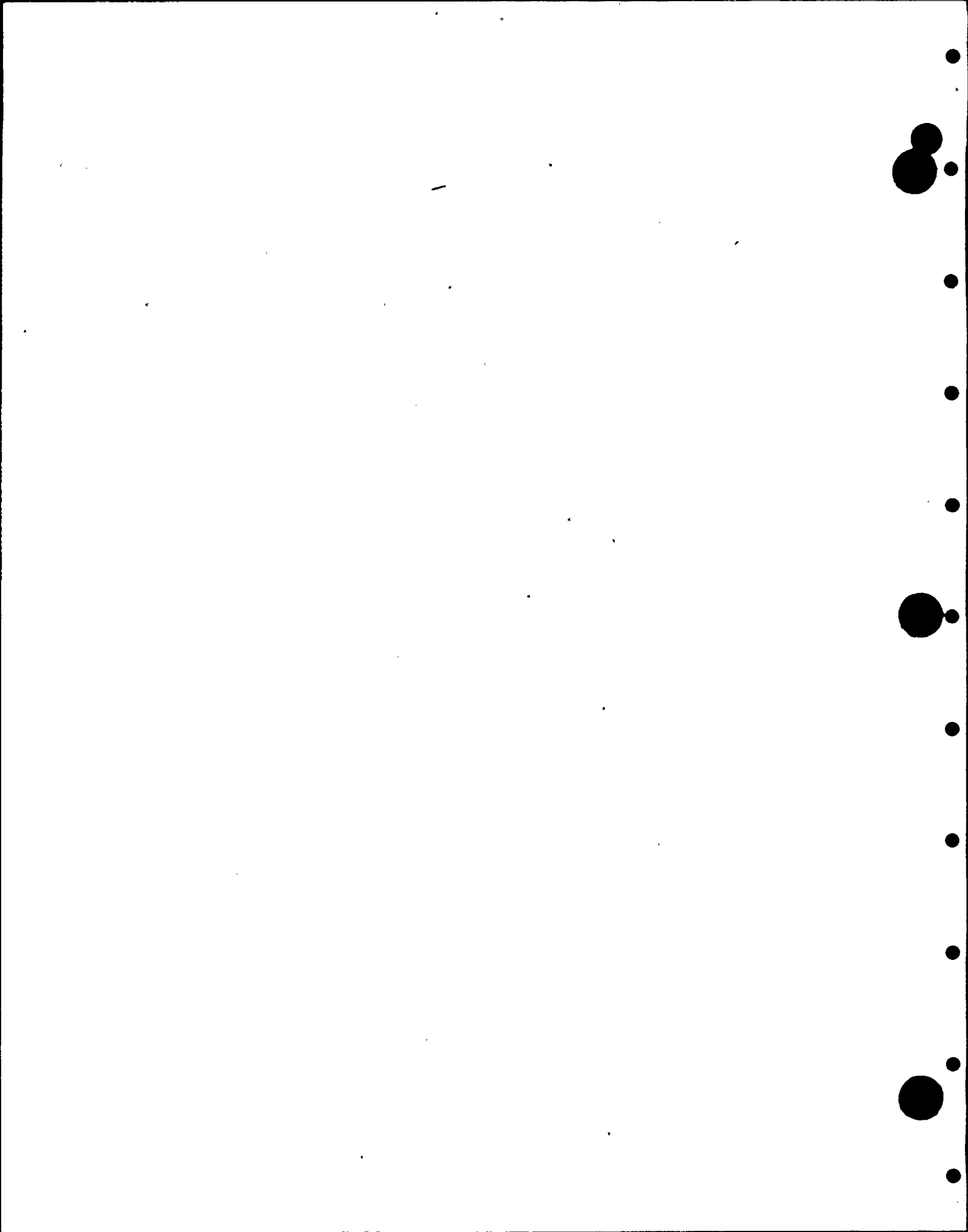
6. Ring Flange 114B5122P002, P003
 137C8151P001, P002
 SA182 - F304
 1" thick x 5.0" OD x 1.75" ID

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:** Washington Public Power Supply System (WPPSS) **Date:** 7/28/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Control Rod Drive (CRD)
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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	7183	N/A	N/A	1975	Replaced	Yes, Code Class 1
CT&F	GE	A9173	N/A	N/A	1992	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7183. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Performed PT examination on the existing Cylinder Tube And Flange (CT&F) assembly. PT examination results unacceptable
- 3) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9173

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 7183, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A9173, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A9173



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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A9173

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 R. Moore
Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-26-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 9556W NBI
Inspector's Signature National Board, State, and Endorsements

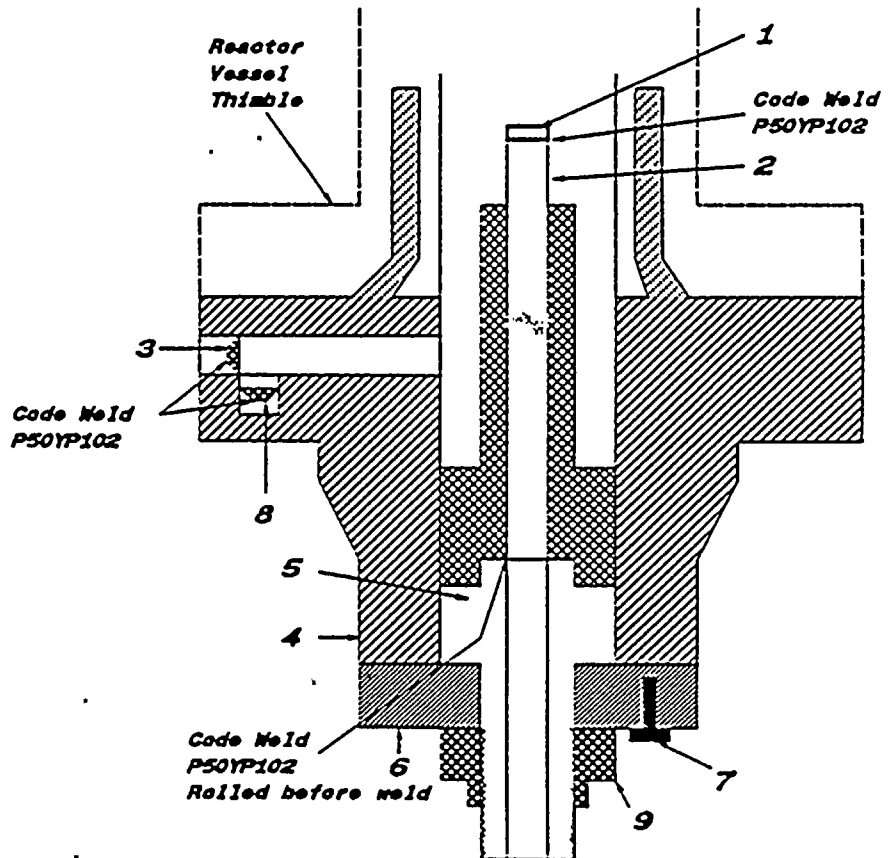
Date 7-29-94

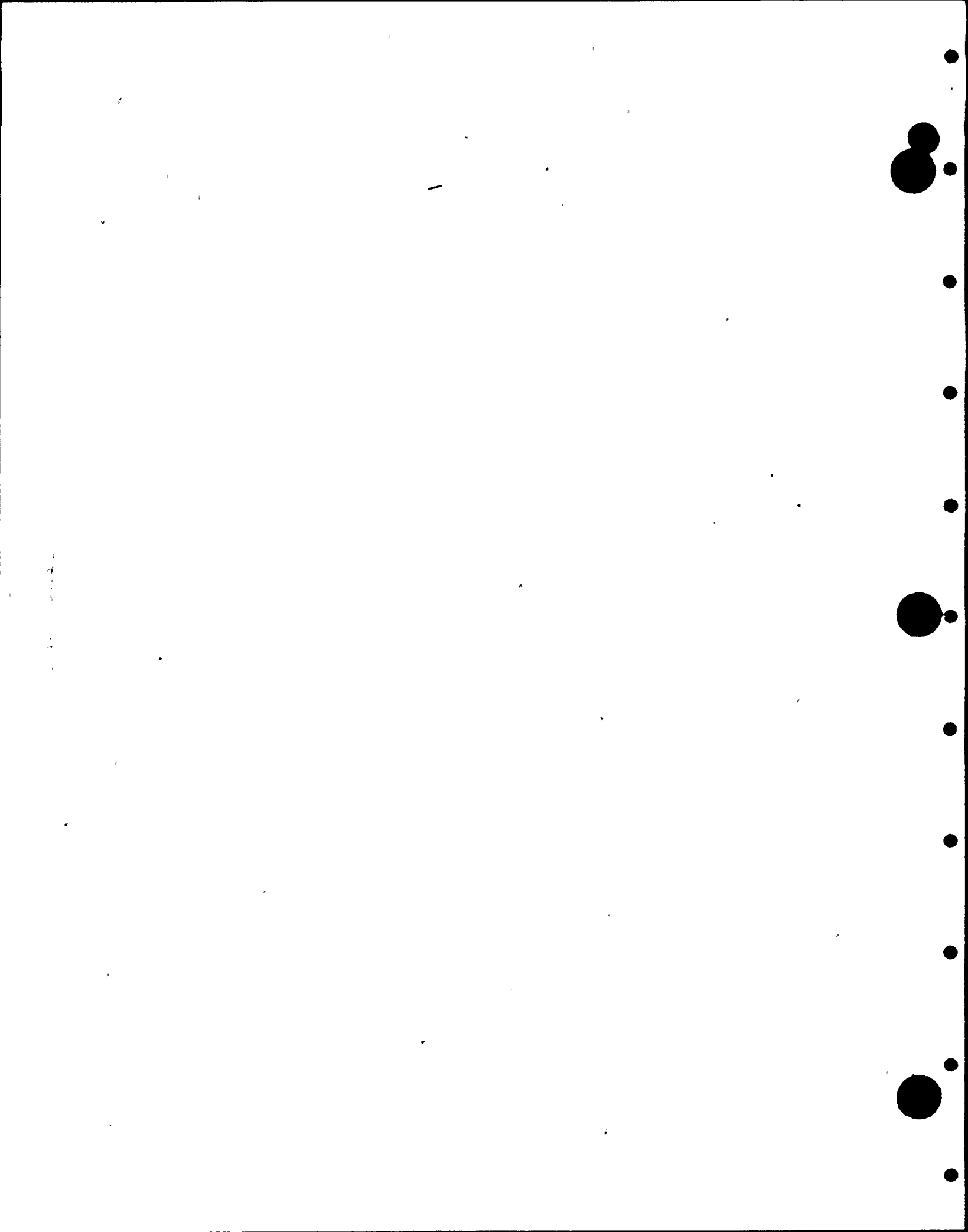
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
 As required by the Provision of the ASME Code Rules, Section III, Div. I

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 : A9173 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 : A9173 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: 12/22/92 Signed GE - NEBG - NF & CM - QA By [Signature]
(NPT Certificate Holder) (SC QA Representative)

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPTN-1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1
Design specification certified by 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 12/16, 1992 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

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

12/23, 1992 [Signature] NC 1231, Ohio, WC 3686 PA
Date Inspector's Signature National Board, State, Province And No.

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

S/N A9173

FORM N-2 (back)

Kuldip Singh

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers. 7/28/94

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

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____ Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____ Location (Top Bottom, Ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (conv. or conc.) (a) _____ (b) _____ If removable, bolts used _____ Other fastening _____ (Material, Spec. No., T.S. Size Number) (Describe or attach sketch)

7. Jacket Closure: _____ (Describe as ogee and weld, bar, etc. if bar give dimensions, if bolts, describe or sketch) Drop Weight _____ Charpy Impact _____ ft-lb _____ ° F _____ ° 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. (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 at temp of _____ ° F Drop Weight _____ Charpy Impact _____ ft-lb _____ ° F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

Table with 8 columns: Purpose (Inlet, Outlet, Drain), Number, Dia. or Size, Type, Material, Thickness, Reinforcement Material, How Attached

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

1. **Owner:** Washington Public Power Supply System (WPPSS) **Date:** 7/28/94
Address: 3000 George Washington Way, Richland, Washington **Sheet:** 1 of 1
2. **Plant:** Washington Public Power Supply System (WPPSS) Nuclear Power Plant (WNP) **Unit:** WNP-2
Address: Hanford Reservation, Benton County, Washington
3. (a) **Work Performed By:** Washington Public Power Supply System (WPPSS), 3000 George Washington Way, Richland, WA
 (b) **Repair Organization P.O. No, Job No, etc.:** Washington Public Power Supply System (WPPSS)
4. **Identification Of System:** Control Rod Drive (CRD)
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:** 1980 Edition with Winter 1980 Addenda, Code Case: N-308
6. **Identification Of Components Repaired Or Replaced And Replacement Components**

Name Of Component	Name Of Manufacturer	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	7357	N/A	N/A	1975	Replaced Replacement	Yes, Code Class 1
CT&F	GE	A9169	N/A	N/A	1992		Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7357. The overhaul work was performed as follows

- 1) Disassembled Control Rod Drive (CRD) assembly for overhaul
- 2) Replaced existing Cylinder Tube And Flange (CT&F) assembly which was damaged during installation
- 3) Reassembled Control Rod Drive (CRD) parts and installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9169

NOTES -

- 1) The existing Control Rod Drive (CRD) assembly Serial No 7357, ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 2) The new Cylinder Tube And Flange (CT&F) assembly Serial No A9169, ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 3) The entire Control Rod Drive (CRD) assembly is now identified by the new Cylinder Tube And Flange (CT&F) Serial No A9169



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

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

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

9. Remarks: See attached N-2 Code Data Report for the new Cylinder Tube And Flange (CT&F) assembly Serial No A9169

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the 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 RT Moore
 Kuldip Singh - Materials And Inspection Manager, Materials And Inspection

Date 7/28/94 Date 7-29-94

CERTIFICATE OF 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 Arkwright Mutual Insurance Company (Factory Mutual Engineering Association) of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-28-94 to 7-29-94 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

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

Don Wagner Commissions 9556 W NBI
 Inspector's Signature National Board, State, and Endorsements

Date 7-29-94

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 : A9169 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: 12/22/92 Signed GE - NEBG - NF & CM - QA By [Signature]
(NPT Certificate Holder) (SC QA Representative)

Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151

Certification of Design for Appurtenance

Design information on file at GE Company, San Jose, California

Stress analysis report on file at GE Company, San Jose, California

DC22A6253 Rev. 1
Design specification certified by 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 12/15, 1992 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.
By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

12/22, 1992
Date

[Signature]
Inspector's Signature

NC 1231, Ohio, WC 3686 PA
National Board, State, Province And No.

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

(87/88)

FORM N-2 (back)

DIN. 1101
Reading Super

Items 4-8 Incl. to be completed for single wall vessels, jackets vessels, or shells of heat exchangers. 728194

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

5. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____
 Girth _____ H.T. _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location (Top Bottom, Ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) _____	_____	_____	_____	_____	_____	_____	_____	_____
(b) _____	_____	_____	_____	_____	_____	_____	_____	_____

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

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. if bar give dimensions, if bolts, describe or sketch)

8. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F
 Drop Weight _____ ft-lb
 Charpy Impact _____ ft-lb

Items 9 and 10 to be completed for tube sections

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

Floating. Material _____ Dia. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

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

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

12. Seams: Long _____ H.T. _____ R.T. _____ Efficiency _____
 Girth _____ H.T. _____ R.T. _____ No. of Courses _____

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

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (conv. or conc.)
(a) Top, bottom, ends	_____	_____	_____	_____	_____	_____	_____	_____
(b) Channel	_____	_____	_____	_____	_____	_____	_____	_____

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

14. Design pressure ² _____ psi at _____ ° F at temp of _____ ° F
 Drop Weight _____ ft-lb
 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. of Size _____ Type _____ Material _____ Thickness _____ Reinforcement Material _____ How Attached _____

17. Inspection Openings: Manholes, No. _____ Size _____ Location _____
 Handholes, No. _____ Size _____ Location _____
 Threaded, No. _____ Size _____ Location _____

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

1 - if Postweld Heat-Treated.
 2 - List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
 As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & 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 : A9169 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.

