



A subsidiary of Pinnacle West Capital Corporation

Scott A. Bauer
Department Leader
Regulatory Affairs
Palo Verde Nuclear
Generating Station

Tel. 623-393-5978
Fax 623-393-5442
e-mail: Scott.Bauer@aps.com

Mail Station 7636
PO Box 52034
Phoenix, Arizona 85072-2034

102-05447-CDM/SAB/RJR
March 17, 2006

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

Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 1, Docket No. STN 50-528
Unit 1 Second 10-Year Interval – Twelfth Refueling Outage Inservice
Inspection Summary**

Pursuant to 10 CFR 50.55a and IWA-6230 of Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, 1992 Edition, 1992 Addenda, Arizona Public Service Company (APS) hereby submits the PVNGS Unit 1 Inservice Inspection Report for the twelfth refueling outage, provided in Enclosure 1. APS completed Unit 1's Refueling Outage on December 24, 2005.

This letter does not make any commitments to the NRC. Please contact Thomas N. Weber at (623) 393-5764 if you have any questions or require additional information.

Sincerely,

*TV Weber... for
SA Bauer*

CDM/SAB/RJR/gt

Enclosure

cc: B. S. Mallett
M. B. Fields
N. L. Salgado

A047

PALO VERDE NUCLEAR GENERATING STATION

UNIT 1

INSERVICE INSPECTION REPORT

TWELVTH REFUELING OUTAGE

ARIZONA PUBLIC SERVICE
5801 S. WINTERSBURG ROAD
TONOPAH, AZ 85354

PREPARED BY: JRBg/ha DATE: 3/7/06
REVIEWED BY: KL/B DATE: 3-7-06
APPROVED BY: Michael Melha DATE: 3-09-06

COMMERCIAL SERVICE DATE: 01/28/1986
REPORT DATE: 03/07/2006

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1.0 Introduction	3
2.0 Examination Summary	3
3.0 Examination Techniques	3
4.0 Accessibility	4
5.0 Personnel	4
6.0 Equipment and Materials	4
7.0 Repairs and Replacements	4

APPENDICES

<u>APPENDIX</u>	<u>PAGE</u>
APPENDIX A - Inservice Inspection Summary Report	5
APPENDIX B - Inservice Inspection Code Limitations	36
APPENDIX C - Form NIS-1	38
APPENDIX D - Forms NIS-2	41

UNIT 1 INSERVICE INSPECTION REPORT

1.0 Introduction

This report is a summary of the examinations performed during the twelfth refueling outage at the Palo Verde Nuclear Generating Station (PVNGS) Unit 1. This report also includes all applicable examinations conducted since the last refueling outage. This was the first refueling for Interval 2, Period 3 which was conducted from October 8, 2005 through December 24, 2005. Palo Verde Unit 1 began commercial operation on January 28, 1986. The steam generators were replaced during this outage and the preservice reports for the replacement are also included.

This report identifies the components examined, the examination methods used, the examination report numbers, and summarize the examination results for each of the following categories:

1. ASME Section XI, Class 1 and 2 pressure retaining components and their supports.
2. Augmented High Energy Piping systems in accordance with PVNGS UFSAR Section 6.6.8.

This report is a summary of the ISI examinations performed during the Second Interval. This report is a summary of the Period 1, 2 and 3 examinations performed through the twelfth refueling outage. All of the examination report numbers listed in Appendix A for the twelfth refueling and examinations performed since the last Summary Report are in bold type.

2.0 Examination Summary

The evaluation of the results from the ISI examinations indicated the integrity of the systems has been maintained. All discrepancies were corrected or determined "use-as-is" in accordance with PVNGS work control practices and ASME Section XI.

Various non-rejectable indications were detected during the performance of examinations. These indications were recorded and are maintained on file.

3.0 Examination Techniques

- 3.1 The three types of examinations utilized to perform the Inservice Examinations, along with the actual nondestructive examination techniques, are identified in the legend below:

VT - Visual	VT-1	General Condition
	VT-2	Leakage
	VT-3	Structural Condition / Operability
S - Surface	PT	Liquid Penetrant
	MT	Magnetic Particle
VOL - Volumetric	UT	Ultrasonic
	RT	Radiographic
	ECT	Eddy Current

- 3.2 All of the nondestructive examinations were performed using specific techniques and procedures that are indicated in ASME Section XI, or alternative examinations that are demonstrated to be equivalent or superior to those identified.

4.0 Accessibility

- 4.1 All items were examined to the extent practical. Code limitations encountered during the examination that exceed the criteria of code case N490 are documented in Appendix B.

5.0 Personnel

- 5.1 All nondestructive examinations were performed by Arizona Public Service Co. (APS), Lambert, Mac Gill, Thomas, Inc. (LMT), or MQS. All personnel were certified in accordance with programs written to comply with the applicable requirements of ASME Section XI. Copies of all certifications are maintained on file. Hartford Steam Boiler Inspection and Insurance Company of Connecticut provided the Authorized Nuclear Inservice Inspector (ANII).

6.0 Equipment and Materials

- 6.1 The equipment and materials utilized were certified to the requirements of ASME Section XI. Copies of all certifications are maintained on file.

7.0 Repairs and Replacements

No repairs or replacement were performed as a result of ISI examinations performed during U1R12. The steam generators were replaced, modifications were implemented and specific maintenance repairs and replacements have been performed since the last summary report. The records are maintained on file at Palo Verde. The applicable NIS-2 forms are an attachment to Appendix D and are submitted for review with this report.

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

APPENDIX A

Definition of Terms

The column headings for the tables on the following pages are defined below:

ASME Item No -	The ASME Section XI Category/Item Numbers are listed in the Code, Subsections IWB and IWC. The item number prefixes are defined below:	
	AHE -	Augmented high energy systems piping
	B -	ASME Class 1 systems
	BFLYWH -	Reactor coolant pump flywheels
	BIWF -	ASME Class 1 supports
	C -	ASME Class 2 systems
	CIWF -	ASME Class 2 supports
	FR -	10 CFR 50 augmented examinations
Zone No -	Area designation per PVNGS design	
Comp/Sys -	Component or system description	
Insp Per -	Inspection period	
Amt Req'd -	Number of items <i>required</i> to be completed in the period	
Amt Comp -	Number of <i>required</i> items completed	
Item ID -	Item identification per ISI program/zone drawings	
Reports (VOL) -	Volumetric exam report number	
(SURF) -	Surface exam report number	
(VIS) -	Visual exam report number	
Remarks -	Re-exam or replacement remarks indicate acceptable	examination results

Definition of terms continued

Acc -	Accessible
ADV -	Atmospheric Dump Valve
Aux -	Auxiliary
Atmos -	Atmospheric
CEDM -	Control Element Drive Mechanism
Circ -	Circumferential
Cont -	Containment
CS -	Containment Spray
CSP -	Containment Spray Pump
FW -	Feedwater
HPSI -	High Pressure Safety Injection
HTRS -	Heaters
ICI -	In Core Instrumentation
IEB -	Inspection and Enforcement Bulletin
Letdown HT Exch -	Letdown Heat Exchanger
LPSI -	Low Pressure Safety Injection
MS -	Main Steam
MT -	Magnetic Particle Test
Press Bound -	Pressure Boundary
PSE -	Preservice Examination
PSV -	Pressurizer Safety Valve
PZR -	Pressurizer
RCP -	Reactor Coolant Pump
RCS -	Reactor Coolant System
Reg HT Exch -	Regenerative Heat Exchanger
SD -	Shutdown
SG -	Steam Generator
Snub -	Snubber Reduction Program
Surf -	Surface
UT -	Ultrasonic Testing
Vis -	Visual
Vol -	Volumetric

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
ASME Class 2 Augmented High Energy Piping										
AHE 5.51 & 5.52	47	MS SGI	One	13	13	47-1	99-1361	99-1280		
						47-2	99-1360	99-1280		
						47-4	99-1305	99-1281		
						47-8	99-1306	99-1281		
						47-12	99-1307	99-1281		
						47-14A	99-1356	99-1280		
						47-16	99-1308	99-1281		
						47-20	99-1309	99-1281		
						47-24	99-1352	99-1280		
						47-25	99-1350	99-1280		
						47-28	99-1348	99-1282		
						47-29	99-1349	99-1282		
						47-30	99-1351	99-1280		
	48	MS SGI East	Two	12	12	48-01	UT-04-006	MT-04-009		
						48-02	UT-04-007	MT-04-010		
						48-04	UT-04-009	MT-04-012		
						48-08	UT-04-011	MT-04-014		
						48-12	UT-04-013	MT-04-016		
						48-14A	UT-04-014	MT-04-017		
						48-16	UT-04-016	MT-04-019		
						48-20	UT-04-018	MT-04-021		
						48-24	UT-04-020	MT-04-023		No credit
						48-25	UT-04-021	MT-04-024		
						48-28	UT-04-023	MT-04-026		
						48-29	UT-04-024	MT-04-027		
						48-30	UT-04-025	MT-04-028		
	50	MS (West) SG	Three	13	0	50-16	UT-05-174			
						50-20	UT-05-176			
						50-24	UT-05-178			
						50-25	UT-05-179			
						50-28	UT-05-181			
			Three	13	0	50-16	UT-05-174			
						50-20	UT-05-176			
						50-24	UT-05-178			
						50-25	UT-05-179			
						50-28	UT-05-181			
	51	Atmos Dump SGI	One	13	13	51-1	99-1345	99-1287		
						51-2	99-1362	99-1287		
						51-3	99-1363	99-1287		
						51-4	99-1364	99-1287		
						51-5	99-1365	99-1287		
						51-6	99-1366	99-1287		
						51-7	99-1367	99-1288		
						51-8A	99-1368	99-1288		

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						51-8B	99-1369	99-1287		
						51-9	99-1370	99-1287		
						51-51	99-1371	99-1287		
						51-84	99-1346	99-1287		
						51-85	99-1347	99-1287		
			Two	14	14	51-26	UT-04-028	MT-04-031		
						51-27	UT-04-029	MT-04-032		
						51-28	UT-04-030	MT-04-033		
						51-29	UT-04-031	MT-04-034		
						51-30	UT-04-032	MT-04-035		
						51-31	UT-04-033	MT-04-036		
						51-32	UT-04-034	MT-04-037		
						51-33	UT-04-035	MT-04-038		
						51-34	UT-04-036	MT-04-039		
						51-37	UT-04-037	MT-04-040		
						51-49	UT-04-038	MT-04-041		
						51-86	UT-04-039	MT-04-042		
						51-87	UT-04-040	MT-04-043		
						51-88	UT-04-041	MT-04-044		
	53	Steam to Aux FW	One	10	10	53-11	99-1538	99-1506		
						53-12	99-1539	99-1506		
						53-13	99-1540	99-1506		PSE
						53-14	99-1541	99-1506		
						53-15	99-1542	99-1506		
						53-21	99-1543	99-1506		
						53-22	99-1544	99-1506		
						53-23	99-1545	99-1506		
						53-24	99-1546	99-1506		PSE
						53-25	99-1547	99-1506		
			Two	9	9	53-1	UT-02-262 UT-02-278	MT-02-187		
						53-2	UT-02-263	MT-02-175		
						53-4	UT-02-264	MT-02-188		
						53-5	UT-02-265	MT-02-189		
						53-6	UT-02-267	MT-02-190		
						53-7	UT-02-268	MT-02-191		
						53-8	UT-02-269	MT-02-192		
						53-9	UT-02-270	MT-02-193		
						53-10	UT-02-271	MT-02-194		
	56	Feedwater SG1	One	7	7	56-1	01-1411	01-1328		
						56-3	01-1412	01-1328		
						56-4	01-1429	01-1328		
						56-6	01-1413	01-1328		
						56-7	01-1414	01-1328		
						56-9	01-1415	01-1328		
						56-11	01-1416	01-1328		
	57	Feedwater SG 2	Three	7	0	57-1	UT-05-187			
						57-3	UT-05-188			
	60	Downcomer SG1	One	9	9	60-7	99-1708	99-1646		
						60-8	01-1221	01-1230		
						60-9	01-1222	01-1230		

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						60-11	01-1223	01-1230		
						60-12	01-1224	01-1230		
						60-14	99-1625	99-1646		
						60-15	99-1658	99-1646		
						60-16	99-1666	99-1646		
						60-17	99-1667	99-1646		
			Two	5	5	60-02	UT-04-067	MT-04-066		
						60-03	UT-04-068	MT-04-067		
						60-04	UT-04-069	MT-04-068		
						60-05	UT-04-070	MT-04-069		
						60-06	UT-04-071	MT-04-070		
	61	Downcomer SG1	Two	5	5	61-02	UT-04-072	MT-04-071		
						61-03	UT-04-073	MT-04-072		
						61-04	UT-04-074	MT-04-073		
						61-05	UT-04-075	MT-04-074		
						61-06	UT-04-076	MT-04-075		
	61	Dwncomr SG2	Three	9	0	61-14	UT-05-189			
						61-15	UT-05-190			
						61-16	UT-05-191			
						61-17	UT-05-192			
	66	Blowdown SG1	One	9	9	66-1	99-1469	99-1416		
						66-2	99-1470	99-1416		
						66-3	99-1471	99-1416		
						66-5	99-1472	99-1416		
						66-6	99-1473	99-1416		
						66-7	99-1474	99-1416		
						66-8	99-1475	99-1416		
						66-9	99-1476	99-1416		
						66-26	99-1477	99-1416		
			Two	6	6	66-10	UT-04-080	MT-04-080		
						66-11	UT-04-081	MT-04-081		
						66-12	UT-04-082	MT-04-082		
						66-13	UT-04-083	MT-04-083		
						66-14	UT-04-084	MT-04-084		
						66-15	UT-04-085	MT-04-085		
AHE 5.61 & 5.62	51	Atmos Dump SG1	Two	21	21	51-101	UT-04-042	MT-04-045		
						51-102	UT-04-043	MT-04-046		
						51-103	UT-04-044	MT-04-047		
						51-104	UT-04-045	MT-04-048		
						51-105	UT-04-046	MT-04-049		
						51-106	UT-04-047	MT-04-050		
						51-107	UT-04-048	MT-04-051		
						51-108	UT-04-049	MT-04-052		
						51-109	UT-04-050	MT-04-053		
						51-110	UT-04-051	MT-04-054		
						51-111	UT-04-052	MT-04-055		
						51-112	UT-04-053	MT-04-056		
						51-113	UT-04-054	MT-04-057		
						51-114	UT-04-055	MT-04-058		
						51-115	UT-04-056	MT-04-059		
						51-116	UT-04-057	MT-04-060		

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						51-117	UT-04-058	MT-04-061		
						51-118	UT-04-059	MT-04-062		
						51-119	UT-04-060	MT-04-063		
						51-120	UT-04-061	MT-04-064		
						51-121	UT-04-062	MT-04-065		
AHE 5.81 & 5.82	47	MS SG1 West	One	7	6	47-3	99-1359	99-1280		
						47-7	99-1358	99-1280		
						47-11	99-1357	99-1280		
						47-15	99-1355	99-1280		
						47-19	99-1354	99-1280		
						47-23	99-1353	99-1280		
						47-27		99-1280		
			Two	0	1	47-27	UT-04-005	MT-04-008		
	48	MS SG1 East	Two	8(1)	8(1)	48-03	UT-04-008	MT-04-011		
						48-07	UT-04-010	MT-04-013		
						48-11	UT-04-012	MT-04-015		
						48-15	UT-04-015	MT-04-018		
						48-19	UT-04-017	MT-04-020		
						48-23	UT-04-019	MT-04-022		
						48-27	UT-04-022	MT-04-025		
						48-34	UT-04-026	MT-04-029		
						48-35	UT-04-027	MT-04-030		Aug, Limited UT exam
	50	MS (West) SG	Three	7	0	50-15	UT-05-173			
						50-19	UT-05-175			
						50-23	UT-05-177			
						50-27	UT-05-180			
		<u>ASME Class 1</u>								
B 1.22	2	Closure Head	One	33%	33%	2-4	99-1466 99-1479 99-1481 99-1483	99-1458		Accessible Areas RR#14
B 1.30	1	Reactor Vessel	One	50%	50%	1-14	UT-*			Examined 0°-180°
B 1.40	2	Closure Head	One	33%	33%	2-1	99-1465 99-1478 99-1480 99-1482	99-1458		Examined 0°- 120° *Separate Report by Wesdyne. Exam completed in 1R8
B 1.40	2	Closure Head	Two	33%	33%	2-1	UT-04-107	MT-04-001		Examined 120-240°
B 2.11 & 2.12	5	Pressurizer	One	66%	66%	5-2	99-1448 99-1450 99-1452 99-1454			Examined 0°-240°
						5-3	99-1449 99-1451 99-1453 99-1455			1' long seam for 5-2
			Two	66%	66%	5-6	UT-02-243 UT-02-244 UT-02-245 UT-02-246			1' long seam for 5-8
						5-8	UT-02-238 UT-02-240 UT-02-241 UT-02-242			Examined 0°-240°
B 2.31	3	SG 1	One	33%	33%	3-5	01-1200 01-1211 01-1214			Examined 0°-120°

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
							01-1234			
			Two	33%	33%	3-5	UT-02-139 UT-02-140 UT-02-147 UT-02-149			Examined 120°-240°
			Three	34%	34%	3-108	UT-05-102			PSE
	4	SG 2	Three	0	0	4-108	UT-05-140			PSE
B 2.32	3	SG 1	One	33%	33%	3-3	01-1199 01-1212 01-1213 01-1233			
						3-10	01-1203 01-1208 01-1218 01-1237			
						3-11	01-1200 01-1201 01-1210 01-1211 01-1214 01-1215 01-1234 01-1235			
						3-12	01-1201 01-1210 01-1215 01-1235			
B 2.40	3	SG 1	One	50%	50%	3-6	01-1201 01-1210 01-1215 01-1235			Examined 0°-180°
			Three	0	0	3-106	UT-05-101			PSE
						3-107	UT-05-100			PSE
	4	SG 2	Two	50%	50%	4-6	UT-02-260 UT-02-280 UT-02-281 UT-02-282			Examined 180°-360°
			Three	1	1	4-106	UT-05-138			PSE
						4-107	UT-05-139			PSE
B 3.90	1	Reactor Vessel	One	2	2	1-15	UT-*			*Separate Report
						1-18	UT-*			by Wesdyne. Exam
B 3.100	1	Reactor Vessel	One	2	2	1-15	UT-*			completed in IR8
						1-18	UT-*			
B 3.110	5	Pressurizer	One	2	2	5-9	01-1283 01-1284 01-1286 01-1287			
						5-11	01-1267 01-1268 01-1269 01-1270			
			Two	2	2	5-10	UT-02-252 UT-02-253 UT-02-254 UT-02-255			
						5-13	UT-02-247 UT-02-248 UT-02-250 UT-02-251			
B 3.120	5	Pressurizer	One	2	2	5-9	01-1285 01-1406			
						5-11	01-1365 01-1366			
			Two	2	2	5-10	UT-02-266			
						5-13	UT-02-272			

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
B 3.130	3	SG 1	One	1	1	3-9	01-1202 01-1209 01-1217 01-1236			
			Two	1	1	3-7	UT-02-134 UT-02-143 UT-02-145 UT-02-146			
			Three	1	1	3-100	UT-05-103			PSE
						3-101	UT-05-107			PSE
						3-102	UT-05-105			PSE
	4	SG 2	One	1	1	4-9	01-1376 01-1377 01-1378 01-1379			
			Two	1	1	4-7	UT-02-138 UT-02-142 UT-02-144 UT-02-148			
			Three	1	1	4-100	UT-05-135 UT-05-218			PSE, 0 - 6 & 14 - 19, UT CC N-460
						4-101	UT-05-136			PSE, UT CC N-460
						4-102	UT-05-137			PSE, UT CC N-460
B 3.140	3	SG 1	One	1	1	3-9	01-1367 01-1368			
			Two	1	1	3-7	UT-02-132			
			Three	1	1	3-100 IR	UT-05-104			PSE
						3-101 IR	UT-05-108			PSE
						3-102 IR	UT-05-106			PSE
	4	SG 2	One	1	1	4-9	01-1369 01-1370			
			Two	1	1	4-7	UT-02-135			
			Three	1	1	4-100 IR	UT-05-203			PSE
						4-101 IR	UT-05-204			PSE
						4-102 IR	UT-05-205			PSE
B 4.11	1	Reactor Vessel	Two	0	0	RPV Vent		ECT-*	04-235 04-236	*Rpt #WDI-PJK-1302615-FSR-001, All (EA-03-009)
B 4.11	2	Closure Head	Three	0	0	Vent Nozzles	UT-*	ECT-*	VT-05-644	NRC Order EA-03-009 *Wesdyne Report WDI-PJF-1303076-FSR-001
B 4.12	2	Closure Head	One	8	8	CEDM Noz			01-1627	
			Two	8	8	CEDM Noz	UT-*	ECT-*	VT-02-700 04-235 04-236	All (EA-03-009)
B 4.12	2	Closure Head	Three	9	9	CEDM- Nozzles	UT-*	ECT-*	VT-05-642	NRC Order EA-03-009 *Wesdyne Report WDI-PJF-1303076-FSR-001
B 4.13	1	Reactor Vessel	One	5	5	Inst. Noz.			01-1627	
			Two	5	5	Inst. Noz.			VT-02-705 VT-04-431	Reject - eval by CRDR 2312850 All (EA-03-009)
B 4.13	1	Reactor Vessel	Three	6	6	ICI			VT-05-641 VT-05-1158	Aug BMI all, NRC Bulletin 2003-02
B 4.20	5	Pressurizer	One	12	12	Heater			01-1627	CEIB 89-06
			Two	12	12	Heater			VT-02-699 VT-04-433	CEIB 89-06
B 4.20	5	PZR	Three	12	12	HEATERS			VT-05-645	CE-IB 89-06
B 5.40	20	PZR Surge	One	1	1	5-34	01-1288 01-1290	01-1232		
	31	PZR Safeties	One	1	1	5-29	01-1238 01-1239 01-1240 01-1278	01-1010		
	20	PZR Surge	Two	0	0	5-34			VT-04-386	Aug. VT
	29	PZR Spray	Two	1	1	5-33	RT-02-003	PT-02-147	VT-04-387	Aug. VT

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
	31	PZR Safeties	Two	1	1	5-31	UT-02-257	PT-02-155	VT-04-390	Aug. VT
						5-29			VT-04-388	Aug. VT
						5-30			VT-04-389	Aug. VT
						5-32			VT-04-391	Aug. VT
	20	PZR Surge	Three	2	0	5-34	UT-05-159		VT-05-646	Aug Vol & VT (bare metal)
						5-33	UT-05-168		VT-05-656	Aug Vol & VT (bare metal) Limited UT exam - Non Code exam
	31	PZR Safeties	Three	2	0	5-29	RT-05-011 UT-05-169		VT-05-657	Aug Vol & Aug VT (bare metal)
						5-30	RT-05-012 UT-05-170		VT-05-658	Aug Vol & Aug VT (bare metal)
						5-31	RT-05-013 UT-05-171		VT-05-659	Aug Vol & Aug VT (bare metal)
						5-32	RT-05-014 UT-05-172		VT-05-660	Aug Vol & Aug VT (bare metal)
B 6.10	2	Closure Head	One	18	18	1 thru 18		99-1510	99-1589	
			Two	18	18	19 thru 36		MT-02-167	VT-02-592	
B 6.30	2	Closure Head	One	18	18	1 thru 18	99-1511	99-1509		
			Two	18	18	19 thru 36	UT-02-211	MT-02-166		
			Two	0	0	45	92-725	92-724		PSE in Warehouse
B 6.50	2	Closure Head	One	18	18	1 thru 18			99-1613	
			Two	18	18	19 thru 36			VT-02-593	
B 6.180	16	RCP 1A	One	5	5	1 thru 5	99-1705		99-1601 01-1654	
			Two	5	5	6 thru 10	UT-04-116		VT-02-626 VT-04-430	IEIN 80-27 All
			Three	6	6	Flange Studs	UT-05-124		VT-05-1111	Installed, 16 studs and clamp ring (IEIN 80-27)
	17	RCP 1B	One	5	5	1 thru 5	99-1706		99-1603 01-1654	
			Two	5	5	6 thru 10	UT-04-117		VT-02-630 VT-04-429	IEIN 80-27 All
			Three	6	6	Flange Studs	UT-05-125		VT-05-1113	Installed, 16 studs and clamp ring (IEIN 80-27)
	18	RCP 2A	One	5	5	1 thru 5	99-1487 99-1464		99-1500 . 01-1654	PSE
			Two	5	5	6 thru 10	UT-04-118		VT-02-634 VT-04-427	IEIN 80-27 All
			Three	6	6	11 thru 16	UT-05-126		VT-05-1115	All studs & clamp ring (IEIN 80-27)
	19	RCP 2B	One	5	5	1 thru 5	99-1707		99-1602 01-1654	
			Two	5	5	6 thru 10	UT-04-119		VT-02-638 VT-04-428	IEIN 80-27 All
			Three	6	6	11 thru 16	UT-05-127		VT-05-1117	All studs & clamp ring (IEIN 80-27)
B 6.190	18	RCP 2A	One	1	1	Flange			99-1488	
B 6.200	16	RCP 1A	One	5	5	1 thru 5			99-1601	
			Two	5	5	6 thru 10			VT-02-625	
	17	RCP 1B	One	5	5	1 thru 5			99-1603	
			Two	5	5	6 thru 10			VT-02-629	
	18	RCP 2A	One	5	5	1 thru 5			99-1197 99-1500	Rejected 6 nuts, PSE 6 nuts/clamp ring
			Two	5	5	6 thru 10			VT-02-633	
	19	RCP 2B	One	5	5	1 thru 5			99-1602	
			Two	5	5	6 thru 10			VT-02-637	
B 7.20	5	Pressurizer	One	20	20	20 studs/nuts			99-1498 01-1272	IEB 82-02 Removed
			Two	20	20	20 studs/nuts		MT-02-172	VT-02-596 VT-04-394	IEB 82-02
			Three	20	20	20 studs/nuts			VT-05-1109	
B 7.30	3	SG1	One	40	40	40 studs/nuts			99-1492 01-1271	IEB 82-02 Removed

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
			Two	40	40	40 studs/nuts		MT-02-173	VT-02-594 VT-04-405	IEB 82-02
			Three	40	40	40 studs/nuts			VT-05-1107	PSE, IEB 82-02
	4	SG2	One	40	40	40 studs/nuts			99-1493 01-1294	IEB 82-02 Removed
			Two	40	40	40 studs/nuts		MT-02-174	VT-02-595 VT-04-406	IEB 82-02
			Three	40	40	40 studs/nuts			VT-05-1108	PSE IEB 82-02
B 7.50	31	PZR Safeties	One	1	1	PSV200			99-1499 01-1431	IEB 82-02 Removed
						PSV201			99-1499 01-1431	IEB 82-02 Removed
						PSV202			99-1499 01-1431	IEB 82-02 Removed
						PSV203			99-1499 01-1431	IEB 82-02 Removed
			Two	1	1	PSV200		MT-02-168	VT-02-597 VT-04-395	IEB 82-02 Removed
						PSV201		MT-02-169	VT-02-598 VT-04-396	IEB 82-02 Removed
						PSV202		MT-02-170	VT-02-599 VT-04-397	IEB 82-02 Removed
						PSV203		MT-02-171	VT-02-600 VT04-398	IEB 82-02 Removed
			Three	2	2	PSV200			VT-05-1118	8 studs and 16 nuts (IEB 82-02)
						PSV201			VT-05-1162	8 studs and 16 nuts (IEB 82-02)
						PSV202			VT-05-1119	8 studs and 16 nuts (IEB 82-02)
						PSV203			VT-05-1163	8 studs and 16 nuts (IEB 82-02)
	37	Charging	One	1	1	V435			99-1263	
B 7.60	16	RCP 1A	One	5	5	1 thru 5			99-1490	
						1 thru 16			01-1476	Disassembled
			Two	5	5	6 thru 10			VT-02-627 VT-02-628	
	17	RCP 1B	One	5	5	1 thru 5			99-1491	
			Two	5	5	6 thru 10			VT-02-631 VT-02-632	
	18	RCP 2A	One	5	5	1 thru 5			99-1489	
						1 thru 16 2			01-1475 01-1501	Disassembled / 2 rejects PSE
			Two	5	5	6 thru 10			VT-02-635 VT-02-636	
	19	RCP 2B	One	5	5	1 thru 5			99-1602	
			Two	5	5	6 thru 10			VT-02-639 VT-02-641	
B 7.70	21	SD Cooling 1	One	1	1	UV653			99-1224	
	22	SD Cooling 2	One	1	1	UV654			01-1533	
			Two	1	1	UV652			VT-02-514	
	23	SI 1A	One	1	1	V237			01-1004	
			Two	2	2	V235			VT-02-516	
						UV634			VT-02-517	
	24	SI 1B	One	1	1	V543			99-1228	
			Two	2	2	V245			VT-02-478	
						UV644			VT-02-506	
	25	SI 2A	One	1	1	V540			99-1219	
			Two	1	1	V217			VT-02-515	
	26	SI 2B	One	1	1	V225			99-1614	
			Two	2	2	V541			VT-02-553	PSE
						UV624			VT-02-518	
	27	PZR Spray 1A	Two	1	1	V100E			VT-02-614	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
	28	PZR Spray 1B	One	2	2	V241			99-1283 99-1665 01-1024	Reject Re-exam Re-exam
						V242			99-1283	
			Two	1	1	V100F			VT-02-615	
	30	Aux PZR Spray	Three	0	0	HIV203			VT-05-1136	PSE, Installed
						HIV205			VT-05-1137	PSE, Installed
	31	PZR Safeties	One	1	1	PSV200			99-1713	
			Two	1	1	PSV202			VT-02-601	
	32	Drain Line 1A	One	2	2	V234			99-1588	
						V334			99-1587	
	33	Drain Line 1B	Two	2	2	V235			VT-04-313	
						V335			VT-04-314	
	34	Drain Line 2A	Two	2	2	V233			VT-02-539	
						V333			VT-02-540	
	37	Charging	One	1	1	PDV240			99-1263	
	38	Drain Line Loop 1	One	1	1	V215			01-1042	
	39	HPSI Long Term 1	One	1	1	V523			01-1040	
			Two	2	2	V522			VT-02-421	
						V957			VT-02-578	
	40	HPSI Long Term 2	Two	1	1	V532			VT-02-579	
B 7.80	2	RVLMS	One	1	1	2-21			01-1600	CEDM 92 & 96
B 8.20	5	Pressurizer	One	66%	66%	5-1	99-1445 99-1446 99-1447 99-1486	01-1006		Examined 0°-240°
B 8.30	3	SG 1	One	33%	33%	3-1	01-1304 01-1330 01-1331 01-1332	01-1292		Examined 0°-120°
			Three	34%	34%	3-104		MT-05-100		PSE ID & OD, MT CC N-460
	4	SG2	Two	33%	33%	4-1	UT-02-130 UT-02-136 UT-02-137 UT-02-141	MT-02-165		Examined 120°-240°, MT on OD only
B 9.11 & 9.12	6	RCS Piping	One	7	7	1-31	UT-*	01-1599		*Separate report by
						1-34	UT-*	01-1599		Wesdyne. Exams
						6-7	UT-*	01-1599		completed in UIR8
						3-30	01-1356 01-1359	01-1299		
						4-30	01-1357 01-1360	01-1291		
						7-7	UT-*	01-1599		
						17-2	01-1361 01-1362	01-1291		
			Two	0	0	16-1		MT-02-179		
						17-1		MT-02-181		
						18-1		MT-02-178		
						19-1		MT-02-180		
			Three	15	4	6-1	UT-05-143	PT-05-056		PSE
						3-103	UT-05-144	MT-05-110		PSE
						4-103	UT-05-145	MT-05-111		PSE
						7-1	UT-05-146	PT-05-057		PSE
						8-13	UT-05-147	MT-05-113		PSE
						8-16	UT-05-148	PT-05-058		PSE
						8-19	UT-05-149	PT-05-059		PSE
						10-13	UT-05-150	MT-05-116		PSE

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						10-16	UT-05-151	PT-05-060		PSE
						10-19	UT-05-152	PT-05-061		PSE
						12-13	UT-05-153	MT-05-119		PSE
						12-16	UT-05-154	PT-05-062		PSE
						12-19	UT-05-155	PT-05-063		PSE
						14-13	UT-05-156	MT-05-122		PSE
						14-16	UT-05-157	PT-05-064		PSE
						14-19	UT-05-158	PT-05-065		PSE
	20	PZR Surge	One	1	1	20-1	01-1289	01-1232		
			Three	3	0	6-4	UT-05-160		VT-05-647	Aug Vol & VT (bare metal)
	21	SD Cooling 1	One	3	3	6-11	01-1380 01-1383	01-1275		
						21-18	01-1381	01-1275		
						21-20	01-1382	01-1275		
			Two	2	2	21-14	UT-02-190	PT-02-119		
						21-15	UT-02-191	PT-02-120		
						21-1		PT-04-063		Aug.
						21-3		PT-04-050		Aug.
						21-4	UT-04-127	PT-04-053		Aug.
						21-5	UT-04-128	PT-04-054		Aug.
						21-6		PT-04-048		Aug.
						6-11		PT-04-059		Aug.
						21-7	UT-04-129	PT-04-057		Aug.
						21-8	UT-04-130	PT-04-058		Aug.
						21-9	UT-04-131	PT-04-049		Aug.
						21-10	UT-04-132	PT-04-051		Aug.
						21-11		PT-04-055		Aug.
						21-11A		PT-04-060		Aug.
						21-12	UT-04-126	PT-04-052		Aug. Limited UT exam
						21-12A		PT-04-042		Aug.
						21-13		PT-04-043		Aug.
						21-13A		PT-04-066		Aug.
						21-14	UT-04-120	PT-04-056		Aug.
						21-15	UT-04-122	PT-04-064		Aug.
						21-16	UT-04-121	PT-04-062		Aug.
						21-17	UT-04-123	PT-04-067		Aug.
						21-18	UT-04-124	PT-04-045		Aug.
						21-19	UT-04-125	PT-04-046		Aug.
						21-20		PT-04-047		Aug.
			Three	2	0	6-11	UT-05-161	PT-05-111	VT-05-648	Aug Surf, Vol & VT (bare metal)
						21-14	UT-05-223	PT-05-112		Aug exams
						21-15	UT-05-224	PT-05-113		Aug exams, Best effort
						21-16	UT-05-225	PT-05-114		Aug exams, Best effort
						21-17	UT-05-226	PT-05-115		Aug exams, Best effort
						21-20	UT-05-222	PT-05-110		Aug exams, Limited UT exam - Non Code exam
	22	SD Cooling 2	One	1	1	22-11	99-1600	99-1590		
						22-14	99-1599	99-1590		
						22-23	01-1510 01-1511	01-1327		Needs PDI re-exam
			Two	0	0	22-1		PT-02-103		
						7-9		PT-02-105		
						22-18		PT-02-112		

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
			Three	7	0	7-9	UT-05-162		VT-05-649	Aug Vol & VT (bare metal)
	23	SI 1A	One	3	3	9-10	01-1541 01-1542	01-1007		
						23-1	01-1543	01-1007		
						23-2	01-1544	01-1007		
						23-4	01-1545 01-1546	01-1007		Needs PDI re-exam
			Two	1	1	23-6	UT-02-287 UT-02-289	PT-02-172		Aug. Limited UT exam
						23-4	UT-04-001			PDI re-exam, Limited UT exam
			Three	2	0	9-10			VT-05-650	Aug VT (bare metal)
	24	SI 1B	Two	3	3	24-6	UT-02-179 UT-02-182	PT-02-116		Aug. Limited UT exam
						24-14	UT-02-185 UT-02-189	PT-02-098		Limited UT exam
						24-16	UT-02-177 UT-02-188	PT-02-101		Limited UT exam
						24-19	UT-02-176 UT-02-178	PT-02-099		Limited UT exam
			Three	3	0	11-10	UT-05-163		VT-05-651	Aug VT (bare metal) Limited UT
	25	SI 2A	One	2	2	25-26	99-1512	99-1503		
						25-27	99-1617	99-1606		
						25-29	99-1618			
			Two	4	4	25-1	UT-02-227	PT-02-145		
						25-4	UT-02-224 UT-02-226	PT-02-146		Limited UT exam
						25-6	UT-02-221 UT-02-222	PT-02-173		Limited UT exam
						13-10	UT-02-228	PT-02-174		
			Three	1	0	13-10			VT-05-652	Aug VT (bare metal)
	26	SI 2B	One	2	2	26-9	99-1615	99-1586		
						26-11	99-1616	99-1586		
			Two	1	1	26-6	UT-02-181 UT-02-184	PT-02-114		Limited Aug. UT exam
						26-17	UT-02-180 UT-02-183	PT-02-113		Limited UT exam
			Three	3	0	15-9	UT-05-164		VT-05-653	Aug VT (bare metal) Limited UT exam
	29	PZR Spray	One	2	2	29-10	99-1467	99-1436		
						29-11	99-1468	99-1436		
			Two	1	1	29-1	UT-02-233 UT-02-234 UT-04-002	PT-02-149		PSE, Need PDI re-exam Re-exam
						29-2	UT-02-235 UT-02-236 UT-04-003	PT-02-150		PSE, Limited UT exam, Need PDI re-exam Re-exam, Limited UT exam
						29-9	UT-02-237 UT-02-239 UT-04-004	PT-02-148		PSE, Need PDI re-exam Re-exam
			Three	2	0	29-2	UT-05-165			Limited UT exam
						29-4	UT-05-166			
						29-5	UT-05-167			
	31	PZR Safeties	One	1	1	31-1	01-1220	01-1010		
			Two	2	2	31-9	UT-02-249	PT-02-156		
						31-10	UT-02-256	PT-02-157		
	36	Letdown Line	Two	1	1	36-75	UT-02-223	PT-02-144		
B 9.21	27	PZR Spray 1A	One	4	4	9-11		01-1044		
& 9.22						27-42		01-1044		
						27-43		01-1044		

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						27-44		01-1044		
			Three	7	0	9-11			VT-05-654	Aug VT (bare metal)
	28	PZR Spray 1A	One	4	4	28-31		99-1459		
						28-32		99-1459		
						28-39		99-1437		
						28-40		99-1437		
			Two	4	4	28-9		PT-02-167		
						28-11		PT-02-168		
						11-11		PT-02-115		
						28-20		PT-02-169		
			Three	3	0	11-11			VT-05-655	Aug VT (bare metal)
	30	Aux PZR Spray	One	2(2)	2(2)	30-7		99-1233		()Identifies augment
						30-13		99-1233		
						30-1	01-1621 01-1623	01-1640		88-08
						30-2	01-1622 01-1624	01-1640		88-08
			Two	2	2 (2)	30-5		PT-02-153		
						30-6		PT-02-154		
						30-1	UT-02-229 UT-02-230	PT-02-151		PSE, IEB 88-08, Limited UT exam
						30-2	UT-02-231 UT-02-232	PT-02-152		PSE, IEB 88-08, Limited UT exam
			Three	0	0	30-4		PT-05-083		PSE
						30-5		PT-05-084		PSE
						30-6		PT-05-085		PSE
						30-7		PT-05-100		PSE
						30-9		PT-05-087		PSE
						30-10		PT-05-088		PSE
						30-11		PT-05-089		PSE
						30-12		PT-05-090		PSE
						30-13		PT-05-091		PSE
	32	Drain 1A	One	3	3	8-18		99-1504		
						32-1		99-1504		
						32-2		99-1504		
			Three	0	0	8-18			VT-05-669	Aug VT (bare metal)
	33	Drain Line 1B	Two	3	3	33-1		PT-02-106		
						33-5		PT-02-107		
						10-18		PT-02-104		
			Three	0	0	10-18			VT-05-661	Aug VT (bare metal)
	34	Drain Line 2A	Three	3	0	12-18			VT-05-652	Aug VT (bare metal)
	36	Letdown Line	One	2	2	36-8		01-1186		
						36-9		01-1186		
			Two	8	8	36-25		PT-02-138		
						36-26		PT-02-139		
						36-28		PT-02-141		
						36-35		PT-02-142		
						36-43		PT-02-085		
						36-44		PT-02-086		
						36-45		PT-02-087		
						36-80		PT-02-088		
			Three	9	0	14-18			VT-05-663	Aug VT (bare metal)
	37	Charging	One	5	5	37-41		99-1301		

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						37-42		99-1301		
						37-43		99-1301		
						37-45		01-1045		
						37-46		01-1045		
						37-47		01-1045		
			Two	7	7	13-11		PT-02-128		
						37-28		PT-02-122		
						37-29		PT-02-123		
						37-30		PT-02-124		
						37-32		PT-02-125		
						37-33		PT-02-126		
						37-34		PT-02-127		
			Three	6	0	13-11			VT-05-1142	Aug VT (bare metal)
	38	Drain Line I	Two	1	1	38-1		PT-02-170		
	39	HPSI A	One	2	2	39-1		99-1234		
						39-5		99-1234		
			Two	3	3	39-12	UT-02-290	PT-02-131		
						39-13	UT-02-292	PT-02-175		
						39-24	UT-02-302 UT-02-303	PT-02-162		Limited UT exam
			Three	4	1	39-26	UT-05-219	PT-05-103		Aug exams
						39-27	UT-05-220	PT-05-104		Aug exams
						39-30	UT-05-214	PT-05-105		Aug exams
						39-31	UT-05-216	PT-05-106		Aug exams
						39-32	UT-05-215	PT-05-107		Aug exams
						39-33	UT-05-217	PT-05-108		Aug exams
						39-33-A	UT-05-221	PT-05-109		Limited UT exam
	40	HPSI B	One	3	3	40-1		01-1043		
						40-2		01-1043		
						40-3		01-1043		
			Two	2	2	40-6	UT-02-285	PT-02-163		
						40-7	UT-02-288	PT-02-164		
B 9.31	6	RCS Piping	One	1	1	9-8	01-1355 01-1358	01-1291		
			Two	0	0	13-8	UT-02-212	MT-02-176		Limited UT exam
B 9.32	6	RCS Piping	One	1	1	8-17		99-1505		
			Two	1	1	13-9		MT-02-177		
	21	SD Cooling I	Two	0	0	21-1A		PT-04-065		Aug
						21-13B		PT-04-044		Aug
	22	SD Cooling	One	1	1	22-7A		99-1607		
	36	Letdown	Two	2	2	36-41		PT-02-084		
						36-76		PT-02-143		
B 9.40	32	Drain 1A	One	1	1	32-6		99-1504		
						32-8		99-1504		
	33	Drain Line 1B	Two	1	1	33-6		PT-02-108		
	34	Drain Line 2A	Two	1	1	34-6		PT-02-171		
	38	Drain I	One	1	1	38-5		01-1041		Removed
						38-12		01-1500		PSE
B 10.10	36	Letdown	One	1	1	RC-91115		99-1591		
						RC-91116		99-1591		
			Two	1	1	RC-91116		PT-02-089		91% CC N460
B 12.20	18	RCP 2A	One	1	1	Bowl Interior			99-1497	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
B12.50	21	SD Cooling I	Two	1	1	V653			VT-04-286	Internal surfaces
	24	SI 1B	Two	1	1	V543			VT-02-523	Internal surfaces
	25	SI 2A	Two	1	1	V215			VT-04-297	Internal surfaces
B 13.10	1	Reactor Vessel	One	33%	33%	Interior			01-1534	accessible areas
			Two	33%	33%	Interior			VT-04-317	accessible areas
B 14.10	2	Closure Head	One	2	2	2-9	01-1519	01-1655		CEDM 84
						2-9	01-1519	01-1655		CEDM 88
				2	2	2-10	01-1518	01-1655		CEDM 84
						2-10	01-1518	01-1655		CEDM 88
			Two	2	2	2-9	UT-02-206	PT-02-136		CEDM 83
						2-9	UT-02-207	PT-02-137		CEDM 91
				2	2	2-10	UT-02-203	PT-02-134		CEDM 83
						2-10	UT-02-204	PT-02-135		CEDM 91
B 15.10	2	Closure Head	Two	ALL	ALL	Head			04-235 04-236	Aug BMI, NRC Order EA-03-009
			Three	100%	100%	Head			VT-05-643	NCR Order EA-03-009
B 15.10, 20, 30, 40, 50, 60 & 70	Various	RCS Piping	One	ALL	ALL	Press Bound			99-1585 99-1647 99-1711 01-1012 01-1013 01-1557	RR#11 & 12 SIBPSV169 disassy
									01-1627 01-1628 01-1012 01-1013 01-1557 01-1627 01-1628 01-1629 01-1630 01-1646 01-1647	reject
			Two	ALL	ALL	Press Boundary			VT-02-698* VT-04-414 VT-04-432 VT-04-436 VT-04-438 VT-04-447 VT-04-466*	*100% RCS ea. Outage
			Three	100%	*	RCS Pressure Boundary			VT-05-664	* RCS 100% each outage
Flywheel	16	RCP 1A	One	1	1	Flywheel	01-1273			
			Two	1	1	Flywheel	UT-02-201			
	17	RCP 1B	One	1	1	Flywheel	01-1363			
			Two	1	1	Flywheel	UT-02-202			
	18	RCP 2A	One	1	1	Flywheel	01-1364			
			Two	1	1	Flywheel	UT-02-208			
	19	RCP 2B	One	1	1	Flywheel	01-1434			
			Two	1	1	Flywheel	UT-02-205			
F 1.10	20	PZR Surge	One	2	2	RC-28-H11			99-1284	
						RC-28-H12			99-1218	
			Two	2	2	RC-28-H1842			VT-04-001	RR#4
						RC-28-H1844			VT-04-002	RR#4
	21	SD Cooling I	One	7	7	SI-240-H110			99-1227	
						SI-240-H111			99-1226	
						SI-240-H113			99-1225	
						RC-51-H11			01-1182	Support Deleted
						RC-51-H12			01-1181	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						RC-51-II3			01-1180	
						RC-51-II821			01-1433	
			Two	7	7	RC-51-II2			VT-02-640 VT-04-324	Expansion
						RC-51-II3			VT-02-429 VT-04-325	Expansion
						RC-51-II4			VT-02-422	Support Deleted
						RC-51-II5			VT-02-423 VT-04-326	
						RC-51-II6			VT-02-703	Support Deleted
						RC-51-II822			VT-02-474	
						SI-240-II1			VT-02-430	Support Deleted
						SI-240-II2			VT-02-425 VT-04-323	
						SI-240-II3			VT-02-431 VT-02-605 VT-04-315	Reject Re-exam
						SI-240-II4			VT-02-433 VT-04-327	Expansion
						SI-240-II5			VT-02-432 VT-02-607 VT-04-316	Reject Re-exam
						SI-240-II6			VT-02-434	Support Deleted
						SI-240-II7			VT-02-435 VT-04-328	Expansion
						SI-240-II8			VT-04-329	
						SI-240-II9			VT-02-659 VT-04-330	Expansion
						SI-240-II10			VT-02-661 VT-04-331	Expansion
						SI-240-II11			VT-02-662 VT-04-332	Expansion
						SI-240-II12			VT-02-424	Support Deleted
						SI-240-II13			VT-04-333	
						SI-240-II823			VT-02-427	
						SI-240-II824			VT-02-428	
			Three	8	2	SI-240-II3			VT-05-667	Re-exam CRDR 2564714, RR #4
						SI-240-II5			VT-05-668	Re-exam CRDR 2564714, RR #4
	22	SD Cooling B	One	4	4	RC-68-II5			01-1177	
						RC-68-II6			01-1176	Support Deleted
						SI-193-II17			01-1178	
						SI-193-II19			01-1179	Support Deleted
			Two	4	4	RC-68-II3			VT-02-663	Expansion
						SI-193-II8			VT-02-496 VT-02-652	Rej Re-exam
						SI-193-II9			VT-02-497	RR #4
						SI-193-II17			VT-02-664	Expansion
						SI-193-II20			VT-02-508	
						SI-193-II23			VT-02-665	Expansion
						SI-193-II25			VT-02-498	Support Deleted
	23	SI 1A	One	1	1	SI-207-II5			01-1005	Support Deleted
			Two	2	2	SI-207-II3			VT-02-666	Expansion
						SI-207-II7			VT-02-509	
						SI-207-II11			VT-02-510	
	24	SI 1B	One	2	2	SI-223-II3			99-1230	
						SI-223-II4			99-1229	Support Deleted
			Two	2	2	SI-223-II1			VT-02-475	
						SI-223-II2			VT-02-477	Support Deleted

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
	25	SI 2A	One	2	2	SI-156-I17			99-1221	Support Deleted
						SI-156-I19			99-1220	
			Two	1	1	SI-156-I19			VT-02-667	Expansion
						SI-160-I11			VT-02-511	
	26	SI 2B	One	2	2	SI-179-I19			99-1223	Support Deleted
						SI-179-I111			99-1222	
			Two	3	3	SI-175-I121			VT-02-507	Reject
						SI-175-I122			VT-02-655	Re-exam
						SI-175-I123			VT-02-512	Support Deleted
						SI-179-I111			VT-02-513	
						SI-179-I111			VT-02-669	Expansion
	27	PZR Spray 1A	One	9	9	RC-62-I126			99-1209	
						RC-62-I127			99-1208	
						RC-62-I128			99-1207	
						RC-62-I129			99-1206	Support Deleted
						RC-62-I130			99-1205	
						RC-62-I131			99-1204	Support Deleted
						RC-62-I132			99-1203	
						RC-62-I133			99-1202	
						RC-62-I134			99-1262	Support Deleted
			Two	8	8	RC-16-I15			VT-02-537	
						RC-16-I16			VT-02-608	
						RC-16-I17			VT-02-609	
						RC-16-I115			VT-02-536	Support Deleted
						RC-62-I135			VT-02-610	
						RC-62-I136			VT-02-611	Support Deleted
						RC-62-I137			VT-02-612	
						RC-62-I138			VT-02-613	
	28	PZR Spray 1B	One	9	9	RC-17-I124			99-1217	
						RC-17-I134			99-1216	
						RC-17-I135			01-1172	
						RC-17-I136			99-1215	
						RC-17-I138			99-1214	
						RC-17-I139			99-1213	Support Deleted
						RC-17-I140			99-1212	
						RC-17-I141			99-1211	Support Deleted
						RC-17-I142			99-1210	
			Two	8	8	RC-17-I143			VT-02-616	
						RC-17-I144			VT-02-617	Support Deleted
						RC-17-I145			VT-02-618	
						RC-17-I146			VT-02-619	
						RC-18-I19			VT-02-620	
						RC-18-I110			VT-02-534	Support Deleted
						RC-18-I111			VT-02-621	Support Deleted
						RC-18-I112			VT-02-535	
	29	PZR Spray	One	2	2	RC-18-I116			99-1439	
						RC-18-I118			99-1440	
			Two	1	1	RC-18-I117			VT-04-003	RR#4
	32	Drain 1A	One	2	2	RC-60-11A			99-1326	Support Deleted
						RC-60-11B			99-1327	Support Deleted
	33	Drain Line 1B	Two	2	2	RC-58-11A			VT-02-493	
						RC-58-11B			VT-02-494	Support Deleted

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
	34	Drain Line 2A	Two	2	2	RC-96-HIA			VT-02-532	
						RC-96-HIB			VT-02-533	Support Deleted
	36	Letdown	One	9	9	RC-91-HII			99-1592	
						RC-91-HI5			99-1593	
						RC-91-HI6			99-1594	
						RC-91-HIB			99-1325	Support Deleted
						RC-91-HID			99-1323	
						RC-91-HIE			99-1319	Support Deleted
						RC-91-HIY			99-1321	
						RC-91-HIZ			99-1324	
						RC-91-HIAA			99-1322	
						RC-91-HIAK			99-1320	
			Two	10	10	RC-91-HI6			VT-02-415	
						RC-91-HIAJ			VT-02-416	
						RC-91-HIP			VT-02-417	
						RC-91-HI2			VT-04-004	RR#4
						RC-91-HIAP			VT-04-005	RR#4
						RC-91-HIAQ			VT-04-006	RR#4
						RC-91-HIQ			VT-04-007	RR#4
						RC-91-HIR			VT-04-008	RR#4
						RC-91-HIS			VT-04-009	RR#4
						RC-91-HIT			VT-04-010	RR#4
	37	Charging	One	14	14	CH-5-HI2			99-1265	Support Deleted
						CH-5-HI3			99-1266	
						CH-5-HI25			99-1267	
						CH-5-HI26			99-1268	Support Deleted
						CH-5-HI27			99-1269	
						CH-5-HI28			99-1270	
						CH-5-HI30			99-1271	
						CH-5-HI34			99-1272	
						CH-5-HI35			99-1273	
						CH-5-HI36			99-1274	
						CH-5-HI42			99-1275	
						CH-5-HI43			99-1276	Support Deleted
						CH-5-HI44			99-1277	
						CH-5-HIAA			99-1264	Support Deleted
			Two	9	9	CH-5-HI13			VT-02-580	
						CH-5-HI17			VT-02-581	
						CH-5-HI18			VT-02-582	
						CH-5-HI19			VT-02-583	
						CH-5-HI20			VT-02-584	
						CH-5-HI21			VT-02-585	
						CH-5-HI22			VT-02-586	
						CH-5-HI32			VT-02-587	
						CH-5-HI37			VT-02-588	
	39	HPSI I	One	4	4	SI-248-HI26			99-1238	Support Deleted
						SI-248-HI27			99-1237	
						SI-248-HI28			99-1236	
						SI-248-HI30			99-1235	Support Deleted
						SI-248-HI25			99-1239	
			Two	5	5	SI-248-HI17			VT-02-418	
									VT-04-334	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						SI-248-II18			VT-02-419	Support Deleted
						SI-248-II19			VT-02-572	
						SI-248-II20			VT-02-573	
						SI-248-II29			VT-02-420	
	40	II PSI 2	One	3	3	SI-199-II13			01-1016	
						SI-199-II14			01-1017	
						SI-199-II21			01-1015	Support Deleted
			Two	4	4	SI-199-II15			VT-02-574	
						SI-199-II16			VT-02-575	
						SI-199-II17			VT-02-576	
						SI-199-II18			VT-02-577	
F 1.40	3	SG 1	One	1	1	3-40			01-1329	
			Three	0	0	3-140			VT-05-665	PSE
	4	SG 2	Two	1	1	4-40			VT-02-623	
			Three	0	0	4-140			VT-05-666	PSE
	5	Pressurizer	One	0	0	5-40			99-1712	
	16	RCP 1A	One	2	2	16-20			99-1259	
						16-21			99-1259	
			Two	4	4	16-12			VT-02-524	
						16-13			VT-02-525	
						16-14			VT-02-526	
						16-15			VT-02-527	
	17	RCP 1B	One	2	2	17-20			99-1260	
						17-21			99-1260	
			Two	4	4	17-12			VT-02-528	
						17-13			VT-02-529	
						17-14			VT-02-530	
						17-15			VT-02-531	
	18	RCP 2A	One	4	4	18-12			99-1663	
						18-13			99-1663	
						18-14			99-1663	
						18-15			99-1663	
			Two	2	2	18-20			VT-02-643	
						18-21			VT-02-645	
	19	RCP 2B	One	4	4	19-12			99-1664	
						19-13			99-1664	
						19-14			99-1664	
						19-15			99-1664	
			Two	2	2	19-20			VT-02-646	
						19-21			VT-02-647	
		<u>ASME Class 2</u>								
C 1.10	41	SG 1	One	2	2	41-3	01-1384 01-1387 01-1390 01-1408			Examined 0°-180°
						41-4	01-1385 01-1388 01-1391 01-1407			Examined 0°-180°
			Three	1	1	41-105	UT-05-115			PSE
						41-106	UT-05-118			PSE
						41-118	UT-05-109			PSE

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
	68	Regen HTEXCH	Two	3	3	68-3	UT-02-194			
						68-5	UT-02-196			
						68-7	UT-02-198			
	69	Letdown HTEXCH	One	1	1	69-1	99-1485			Examined 0°-180°
			Three	50%	50%	69-1	UT-05-133			Examined 180 to 360 % UT Coverage = 90.07%
	84	SD Cooling A	Two	50%	50%	74-123	UT-04-111			Examined 0°-180°
	87	SD Cooling HX B	Three	50%	50%	75-78	UT-05-201			180 to 360 Deg
C 1.20	41	SG 1	One	1	1	41-5	01-1386 01-1389 01-1392 01-1393 01-1394 01-1395 01-1409 01-1410			Examined 0°-180°
			Three	1	1	41-107	UT-05-121			PSE
	68	Regen HTEXCH	Two	2	2	68-4	UT-02-195			
						68-6	UT-02-197			
C 1.30	41	SG 1	One	1	1	41-1	01-1206 01-1207 01-1219 01-1241			Examined 0°-180°
			Three	1	1	41-104	UT-05-110			PSE, Limited UT exam CC N-460
	42	SG 2	Two	1	1	42-1	UT-02-261 UT-02-258 UT-02-259 UT-02-275			Examined 0°-180°
	68	Regen HTEXCH	Two	4	4	68-1	UT-02-192			
						68-2	UT-02-193			
						68-8	UT-02-199			
						68-9	UT-02-200			
	69	Letdown HTEXCH	One	1	1	69-2	99-1484			Examined 0°-180°
			Three	50%	50%	69-2	UT-05-134			Examined 180° to 360°
	84	SD Cooling A	Two	50%	50%	74-124	UT-04-112			Examined 0°-180°
	87	SD Cooling HX B	Three	50%	50%	75-79	UT-05-202			Examined 180° to 360°
C 2.21	41	SG 1	One	1	1	41-34	01-1279 01-1280	01-1008		
			Two	2	2	41-9	UT-04-108	MT-04-006		
						41-10	UT-04-109	MT-04-007		
			Three	3	3	41-102	UT-05-111	MT-05-101		PSE
						41-103	UT-05-113	MT-05-102		PSE
						41-109	UT-05-119	MT-05-105		PSE
						41-110	UT-05-120	MT-05-106		PSE
						41-114	UT-05-122	MT-05-107		PSE
						41-115	UT-05-123	MT-05-108		PSE
	42	SG 2	One	1	1	42-35	01-1281 01-1282	01-1009		
			Three	0	0	42-100	RT-05-026 UT-05-198	PT-05-034		PSE
						42-101	RT-05-027 UT-05-199	PT-05-035		PSE
	84	SD Cooling A	Two	1	1	74-122	UT-04-110	MT-04-088		
	87	SD Cooling HX B	Three	1	1	75-76	UT-05-200	MT-05-147		
C 2.22	41	SG 1	Two	2	2	41-9	UT-04-113			Inner Radius (ID) RR8
						41-10	UT-04-114			Inner Radius (ID) RR8
			Three	3	3	41-102-IR	UT-05-112			PSE
						41-103-IR	UT-05-114			PSE

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						41-114-1R		MT-05-129		PSE RR#8
						41-115-1R		MT-05-130		PSE RR#8
	84	SD Cooling A	Two	1	1	74-122	UT-04-115			Inner Radius (ID)
	87	SD Cooling HX B	Three	1	1	75-76	UT-05-206			
C 3.10	41	SG 1	One	1	1	41-42		01-1447		
			Three	0	0	41-112	UT-05-117	MT-05-103		PSE
						41-113	UT-05-116	MT-05-104		PSE
	42	SG 2	Two	1	1	42-43		MT-04-090		
	68	Regen HTEXCH	Two	2	2	68-10		PT-02-132		96% CC N460
						68-11		PT-02-133		96% CC N460
C 3.20	44	MS SG1 270	Two	1	1	SG-33H16		MT-02-184		
	45	MS SG2 270	One	1	1	SG-42H14		99-1430		
			Two	2	2	SG-42H15		MT-02-185		
						SG-42H16		MT-02-186		
	55	Feedwater SG 2	One	1	1	SG-51H9		01-1184 01-1185		
	62	Aux FW SG1	Two	1	1	AF-18-H1		PT-04-040		
	64	Blowdown SG 1	One	3	3	SG-39H15		01-1298 01-1302		
						SG-39H17		01-1303		Support Deleted
						SG-53H1		01-1002		Support Deleted
			Two	2	2	SG-39H1		MT-02-203		
						SG-53H5		MT-02-200 PT-02-176		
	65	Blowdown SG 2	One	2	2	SG-48H20		01-1295		Support Deleted
						SG-52H1		01-1003		Support Deleted
			Two	3	3	SG-48-H14		MT-04-077		
						SG-48-H16		MT-04-078		
						SG-48-H26		MT-04-079		
	71	LPSI Discharge	One	1	1	SI-87H11		99-1435		
	76	CS Suction	One	1	1	SI-9H14		99-1373		
	77	Cont Spray A	Three	1	1	SI-79-H17		PT-05-038		
	80	Cont Spray B	Three	1	1	SI-119-H15		PT-05-039		
	83	SD Cooling 1	Two	2	2	SI-87-H4		PT-04-061		
						SI-90-H1		PT-04-041		
			Three	2	2	SI-70-H1		PT-05-102		
						SI-70-H16		PT-05-043		
	86	SD Cooling HX B	Three	2	2	SI-72-H1		PT-05-044		
						SI-72-H12		PT-05-045		
	88	East Wrap	One	1	1	SI-72H13		99-1516		
	89	East Wrap	One	1	1	SI-194H14		99-1619		
	91	West Wrap	One	4	4	SI-70H19		99-1374		
						SI-70H11		99-1256		
						SI-70H12		99-1456		
						SI-70H16		99-1256		
	92	West Wrap	One	1	1	SI-241H21		99-1605		
			Two	2	2	SI-239-H1		PT-04-017		
						SI-241-H16		PT-04-018		
	93	CS Discharge 1	Two	1	1	SI-89-H13		PT-04-020		
	94	LPSI A	Two	2	2	SI-070H15		PT-02-121		
						SI-070-H18		PT-02-130		
	95	Train B Chase	Three	1	1	SI-194-H16		PT-05-049		
	99	LPSI to Loop 2B	Two	1	1	SI-174H13		PT-02-129		

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
	100	LPSI Suction A	One	1	1	SI-369I11		99-1457		
			Two	1	1	84-5		PT-02-178		
	101	LPSI Sump B	Three	1	1	85-5		PT-05-050		
	102	SI Suction A	One	3	3	SI-307I12		01-1446		
						SI-307I13		01-1446		
						SI-307I15		01-1446		
	103	Refuel. Suction A	Two	2	2	CH142H16		PT-02-118		
						CH142H20		PT-04-069		
	104	SI Suction B	Two	1	1	SI-308H13		PT-02-159		
	105	SI B	Three	3	3	CH-149-I12		PT-05-051		
						CH-149-I18		PT-05-052		
						CH-425-I16		PT-05-053		
	113	HPSI Discharge	One	1	1	SI-107I122		01-1198		Limited exam
C 3.30	72	LPSI Pump A	One	3	3	72-3A		01-1471		
						72-3B		01-1471		
						72-3C		01-1471		
	75	LPSI A	Two	3	3	73-3A		PT-04-004		
						73-3B		PT-04-005		
						73-3C		PT-04-006		
	78	CS A	Two	3	3	80-3A		PT-04-007		
						80-3B		PT-04-008		
						80-3C		PT-04-009		
	81	Cont Spray B	Three	3	3	81-3A		PT-05-040		
						81-3B		PT-05-041		
						81-3C		PT-05-042		
	116	HPSI Pump A	One	4	4	116-1A		01-1473		Limited exam
						116-1B		01-1473		
						116-1C		01-1473		
						116-1D		01-1473		Limited exam
	117	HPSI Pump B	Two	4	4	117-1A		PT-04-034		
						117-1B		PT-04-035		
						117-1C		PT-04-036		
						117-1D		PT-04-037		
C 4.40	47	Main Steam SG 1	One	20	20	UV170	01-1372			
	48	Main Steam SG 1	One	20	20	UV180	01-1373			
	49	MS (East) SG	Three	20	20	V171	UT-05-128 UT-05-213			20 Studs Installed - no rejects, PSE, CRDR 2842463.
	50	MS (West) SG	Three	20	20	V181	UT-05-129			20 Studs Installed
	56	Feedwater SG 1	Two	40	40	V132	UT-02-209			20 Studs
						V174	UT-02-210			20 Studs
	57	Feedwater SG 2	Three	20	20	V137	UT-05-130			20 Studs Installed
			Three	20	20	V177	UT-05-131			20 Studs Installed
C 5.11 & 5.12	58	Aux Feed SG 1	Two	0(1)	0(1)	58-1	RT-04-001	PT-04-001		IEB 79-13
			Three	2(1)	0(1)	58-1	RT-05-019	PT-05-036		PSE
	59	Aux Feed SG 2	Two	2(4)	2(4)	59-1	UT-02-219 UT-02-220 UT-02-225	PT-02-140		PSE
						59-12	UT-04-134	PT-04-068		PSE
						59-16	UT-02-159 UT-02-160 UT-02-161	PT-02-097		PSE, AUG (IEB 79-13)
						59-16A	UT-02-273	PT-02-160		PSE, AUG (IEB 79-13)
						59-16C	UT-02-274	PT-02-161		PSE

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						59-34	UT-02-283 UT-02-284	PT-02-091		
			Three	0(4)	0(1)	59-1	RT-05-020	PT-05-037		PSE
	62	Aux Feed SG 1	Two	1	1	62-6	UT-04-077	PT-04-002		
			Three	1	0	62-5	UT-05-193			
						62-6	UT-05-194			
						62-12	UT-05-195			
						62-13	UT-05-196			
	63	Aux Feed SG 2	One	0	0	63-4	01-1525 01-1526	01-1188		Needs PDI re-exam
			Two	1(1)	1(1)	63-4	UT-04-078			Aug. PDI re-exam
						63-23	UT-04-079	PT-04-003		
	70 & 73	LPSI Suction A & B	One	1	1	70-58	99-1258	99-1257		
			Two	1	1	70-56	UT-02-174 UT-02-175	PT-02-111		
	82 & 85	SD Cooling HIX A & B	One	2	2	72-50	99-1372	99-1316		
						73-49	01-1428	01-1189		
	83 & 86	SD Cooling HIX A & B	One	4	4	74-19	99-1381	99-1315		
						74-21	99-1383	99-1317		
						74-22	99-1384	99-1317		
						74-105	99-1382	99-1314		
	88 & 91	East & West Wrap	One	6	6	78-16	99-1604	99-1515		
						74-44	99-1311	99-1279		
						76-2	99-1310	99-1279		
						76-21	01-1535 01-1547	01-1190		
						77-7	01-1521 01-1540	01-1371		Limited exam
						77-14	01-1522 01-1523 01-1524	01-1371		Limited exam
			Two	7	7	76-7	UT-04-089	PT-04-013		Limited UT Exam
						76-8	UT-04-090	PT-04-014		
						77-8	UT-04-091	PT-04-015		
						77-16	UT-04-092	PT-04-016		Limited UT Exam
						78-9J	UT-04-086	PT-04-010		
						78-11	UT-04-087	PT-04-011		
						79-14	UT-04-088	PT-04-012		Limited UT Exam
	90 & 93	SI East & West Wrap	Two	0(1)	0(1)	84-9	UT-04-093	PT-04-019		Aug. Limited UT exam
	94 & 95	SI A & B	One	1	1	74-40	01-1427	01-1430		
			Two	2	2	74-37	UT-02-172 UT-02-173	PT-02-109		
						74-38	UT-02-170 UT-02-171	PT-02-110		
			Three	3	0	74-30	UT-05-197			
	96, 97, 98 & 99	LPSI Loop 1A, 1B, 2A 2B	One	3	3	78-45	99-1513	99-1502		
						78-47	99-1514	99-1502		
						79-23	01-1276 01-1277	01-1293		
			Two	2	2	77-22	UT-02-162	PT-02-095		
						77-27	UT-02-163 UT-02-164	PT-02-096		Limited UT exam
	100	LPSI Suction A	Two	2	2	70-121	UT-02-165 UT-02-166	PT-02-093		Limited UT exam
						84-3	UT-02-291 UT-02-293	PT-02-177		Limited UT exam
	102	SI Suction A	One	0	0	84-12	01-1487	01-1191		

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
							01-1488			
			Two	1(1)	1(1)	84-26	UT-02-150 UT-02-169 UT-04-095	PT-02-090 PT-04-022		Limited UT exam Limited UT exam
						84-12	UT-04-094	PT-04-021		Aug, Limited UT exam
	103	Refuel. Suction A	One	1	1	86-57	01-1305	01-1300		
			Two	1	1	86-1	UT-02-186 UT-02-187	PT-02-117		Limited UT exam
	104	SI Suction B	One	1	1	85-46	01-1307 01-1308 01-1309	01-1301		Limited exam
			Two	1	1	85-31	UT-02-276	PT-02-158		
	105	Refuel. Suction B	One	1	1	87-23	01-1306	01-1192		
			Two	1	1	87-37	UT-02-277 UT-02-279	PT-02-165		
C 5.21	106 & 107	HPSI Discharge A & B	One	4	4	106-1	01-1244 01-1248 01-1252	01-1193		Limited exam
						106-21	01-1254 01-1257 01-1260	01-1193		Limited exam
						107-11	01-1245 01-1249 01-1253	01-1194		Limited exam
						107-42	01-1225 01-1226 01-1227	01-1194		Limited exam
			Two	4	4	106-64	UT-04-096	PT-04-024		Limited UT exam
						106-68	UT-04-097	PT-04-025		
						107-1	UT-04-098	PT-04-026		Limited UT exam
						107-22	UT-04-099	PT-04-027		
	108 & 109	HPSI Discharge	One	2	2	109-4	01-1246 01-1250	01-1195		Limited exam
						109-21	01-1489	01-1502		
			Two	3	3	108-1	UT-04-100	PT-04-028		
						108-4	UT-04-101	PT-04-029		
						108-25	UT-04-102	PT-04-030		
	110 & 111	HPSI Discharge	One	2	2	110-6	01-1247 01-1251	01-1229		Limited exam
						110-39	01-1261 01-1263 01-1265	01-1196		Limited exam
	112 & 113	HPSI Discharge A & B	One	3	3	112-1	01-1255 01-1258	01-1197		Limited exam
						112-33		01-1197		
						112-34	01-1259 01-1256	01-1183 01-1374		Limited exam
						112-45	01-1262 01-1264 01-1266	01-1197		Limited exam
			Two	2	2	113-21	UT-04-103	PT-04-031		Limited UT exam
						113-28	UT-04-104	PT-04-032		Limited UT exam
	114 & 115	HPSIIA, 1B, 2A & 2B	One	1	1	115-13	01-1310 01-1311	01-1274		Limited exam
			Two	1	1	115-20	UT-02-298 UT-02-299	PT-02-102		Limited UT exam
	118 & 119	HPSI Long Term	Two	4	4	118-49	UT-02-167 UT-02-168	PT-02-094		Limited UT exam
						119-52	UT-02-300 UT-02-301	PT-02-166		Limited UT exam
						119-26	UT-04-105	PT-04-038		
						119-53	UT-04-106	PT-04-039		Limited UT exam

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
C 5.30	106&107	HPSI Discharge A&B	One	1	1	107-53		01-1194		
			Two	1	1	106-61		PT-04-023		
C 5.41 & 5.42	82 & 85 88 & 91	SD Cooling IIX A & B East & West Wrap	One	1	1	72-49A		99-1316		
	96	LPSI to Loop 1A	Two	1	1	74-102		99-1279		
						76-78		PT-02-100		
C 5.51 & 5.52	43	MS SG1 90	One	1	1	43-2	99-1443	99-1432		
	44	MS SG1 270	One	1	1	44-1	99-1442	99-1431		
			Two	2	2	44-5	UT-02-217	MT-02-182		
						44-30	UT-02-218	MT-02-183		
			Three	0	0	44-1	RT-05-015	MT-05-131		PSE
	46	MS SG2 90	One	1	1	46-25	99-1444	99-1433		
	54	Feedwater SG 1	One	1	1	54-41	01-1520	01-1296		
						54-10	01-1616	01-1610		PSE (Vol is RT)
						54-11A	01-1613	01-1610		PSE
						54-24	01-1617	01-1610		PSE (Vol is RT)
						54-25A	01-1614	01-1610		PSE
			Two	2	2	54-1	UT-02-296	MT-02-201		PSE
						54-11A	UT-02-295	MT-02-202		
			Three	2	1	54-1	RT-05-016	PT-05-066		PSE
						54-15	RT-05-017	PT-05-067		PSE
	55	Feedwater SG 2	One	2	2	55-1	01-1204	01-1001		
						55-15	01-1205	01-1001		
						55-10	01-1620	01-1532		PSE (Vol is RT)
						55-11	01-1618 01-1619	01-1532		PSE (Vol is RT)
			Two	1	1	55-26	UT-02-294	MT-02-196		PSE
			Three	2	0	55-1	RT-05-025	PT-05-069		PSE
						55-15	RT-05-018	PT-05-070		PSE
						55-16	UT-05-182	PT-05-071		PSE
						55-17	UT-05-183	PT-05-072		PSE
						55-18	UT-05-184	PT-05-073		PSE
						55-19	UT-05-185	PT-05-074		PSE
						55-20	UT-05-186	PT-05-075		PSE
	58	Aux & Dwncomr SG1	One	1(5)	1(5)	41-39	99-1495	99-1508		(I)dentifies augment
						58-1	99-1494	99-1501		EXAM (IEB 79-13
						58-12	99-1286	99-1231		& SER 83-07)
						58-13	99-1289	99-1231		
						58-16	01-1529	99-1285 01-1297		
						58-16A	01-1528	99-1285 01-1297		
						58-6	01-1559 01-1560 01-1561	01-1530		PSE (Vol is RT)
						58-35	01-1562	01-1530		PSE (Vol is RT)
						58-36	01-1563	01-1530		PSE (Vol is RT)
			Two	0(4)	0(4)	58-12	UT-02-157	MT-02-161		AUG (IEB 79-13)
						58-13	UT-02-158	MT-02-162		AUG (IEB 79-13)
						58-16	UT-02-156	MT-02-163		AUG (IEB 79-13)
						58-16A	UT-02-155	MT-02-164		AUG (IEB 79-13)
			Three	1 (4)	0(0)	41-111	UT-05-227	MT-05-142		PSE
	59	Aux & Dwncomr SG2	One	0(5)	0(5)	59-1	99-1496	99-1507		
						59-2	01-1641	01-1531		PSE (Vol is RT)
						59-12	99-1292	99-1232		

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						59-13	99-1293	99-1232		
						59-16	99-1290 01-1512 01-1514 01-1516	99-1198 01-1231		PSE
						59-16A	99-1291 01-1513 01-1515 01-1517	99-1198 01-1231		PSE
						59-6	01-1417 01-1419 01-1421 01-1424	01-1375		PSE
						59-35	01-1418 01-1420 01-1422 01-1425	01-1375		PSE
						59-36	01-1423 01-1426 01-1527	01-1375		PSE
			Two	1(1)	1(1)	59-12		MT-02-197		Now C 5.11
						59-13	UT-04-066	MT-02-198		AUG (IEB 79-13)
						59-25	UT-02-151 UT-02-152	MT-02-160		
	64	Blowdown SG 1	One	1	1	64-1	01-1242	01-1002		
			Three	2	1	64-1	RT-05-021	MT-05-143		PSE
						64-30	RT-05-022	MT-05-144		PSE
	65	Blowdown SG 2	One	1	1	65-28	01-1243	01-1003		
			Two	1	1	65-52	UT-02-153 UT-02-154	MT-02-159		
			Three	1	1	65-1	RT-05-023	MT-05-145		PSE
						65-28	RT-05-024	MT-05-146		PSE
C 6.10	116	HPSI Pump A	by end of interval			116-2		01-1473		
	117	HPSI Pump A	by end of interval			117-1		PT-04-033		
C6.20	49	MS (East) SG2	Three	1	1	V554		MT-05-132		
						V556		MT-05-133		
	86	SD Cooling IIX B	Three	1	1	V464		PT-05-046		
	89	East Wrap	Three	1	1	V656		PT-05-048		
	106	HPSI A	Three	1	1	V404		PT-05-054		
	107	HPSI B	Three	1	1	V478		PT-05-055		

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
C 7.10 C 7.30 C 7.50 C 7.70	N/A	Pressure Vessels Piping Pumps Valves	One	All	All	Press Bound			01-1011 01-1012 01-1013 01-1014 01-1312 01-1317 01-1318 01-1319 01-1320 01-1321 01-1323 01-1324 01-1325 01-1326 01-1432 01-1436 01-1437 01-1440 01-1441 01-1443 01-1444 01-1445 01-1485 01-1486 01-1496 01-1504 01-1507 01-1508 01-1509 01-1536 01-1537 01-1538 01-1539 01-1557 01-1597 01-1615 01-1625 01-1626 01-1627 01-1629 01-1630 01-1631 01-1632 01-1633 01-1634 01-1635 01-1636 01-1638 01-1642 01-1644 01-1645 01-1646 01-1647 01-1648 01-1649 01-1650 01-1653 VT-03-001 VT-03-002 VT-03-003 VT-03-005	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
			Two	ALL	ALL	Press Boundary			VT-03-004 VT-03-006 VT-03-007 VT-03-008 VT-03-009 VT-03-010 VT-03-011 VT-03-012 VT-03-013 VT-03-015 VT-03-016 VT-03-017 VT-03-018 VT-03-019 VT-03-020 VT-03-021 VT-03-022 VT-03-023 VT-03-024 VT-03-025 VT-03-026 VT-03-027 VT-03-028 VT-03-029 VT-03-030 VT-03-031 VT-03-032 VT-03-033 VT-03-034 VT-03-035 VT-04-335 VT-04-336 VT-04-337 VT-04-343 VT-04-345 VT-04-346 VT-04-348 VT-04-349 VT-04-350 VT-04-351 VT-04-352 VT-04-353 VT-04-354 VT-04-355 VT-04-356 VT-04-357 VT-04-358 VT-04-359 VT-04-362 VT-04-364 VT-04-365 VT-04-366 VT-04-368 VT-04-369 VT-04-370 VT-04-371 VT-04-374 VT-04-375 VT-04-377 VT-04-382 VT-04-383 VT-04-384 VT-04-385 VT-04-392 VT-04-409 VT-04-411 VT-04-412 VT-04-419 VT-04-420	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
									VT-04-421 VT-04-422 VT-04-432 VT-04-434 VT-04-436 VT-04-437 VT-04-438 VT-04-439 VT-04-440 VT-04-441 VT-04-442 VT-04-443 VT-04-444 VT-04-446 VT-04-447 VT-04-451	
			Three	All*	*	Press Bound			VT-05-1168	* Period requirement - partial
F 1.20	43	MS SG 1 90	One	2	2	SG-36-1117			99-1240	
						SG-36-11884			99-1242	
						SG-36-11885			99-1241	
			Two	1	1	SG-36-1111			VT-02-622	RR #4
			Three	2	2	SG-36-1111			VT-05-546 VT-05-1150	AUG RR#4 PSE
						SG-36-1116			VT-05-547	RR#4
						SG-36-1117			VT-05-548	RR#4
	44	MS SG1 270	One	2	2	SG-33-1117			99-1278	
						SG-33-1118			99-1243	Support Deleted
			Two	3	3	SG-33-1116			VT-02-694	RR #4
						SG-33-11881			VT-02-693	RR #4
						SG-33-11882			VT-02-695	RR #4
			Three	1	1	SG-33-1111			VT-05-549	RR#4
						SG-33-1116			VT-05-550	AUG RR#4
						SG-33-1117			VT-05-551 VT-05-1152	AUG RR#4 PSE, RR #4
	45	MS SG 2 270	One	1	1	SG-42-1114			99-1244	
			Two	3	3	SG-42-1111			VT-02-690	RR #4
						SG-42-1115			VT-04-014	RR#4, Removed
						SG-42-1116			VT-04-015	RR#4
			Three	3	1	SG-42-11-11			VT-05-552	AUG RR#4
						SG-42-11-16			VT-05-553	AUG RR#4
						SG-42-11-17			VT-05-554	RR#4
	46	MS SG 2 90	One	2	2	SG-45-1117			99-1441	
						SG-45-1118			99-1463	Support Deleted
			Two	3	3	SG-45-1111			VT-02-691	RR #4
						SG-45-11887			VT-02-689	RR #4
						SG-45-11888			VT-02-692	RR #4
			Three	1	1	SG-45-11-11			VT-05-555	AUG RR#4
						SG-45-11-16			VT-05-556	RR#4
						SG-45-11-17			VT-05-557 VT-05-1155	AUG RR#4 PSE, RR #4
	47	MS SG1 270	One	1	1	SG-206-111			99-1318	
	48	MS SG1 270	Two	1	1	SG-207-111			VT-04-016	
	49	MS (East) SG	Three	1	1	SG-208-111			VT-05-674	RR #4
	50	MS (West) SG	Three	1	1	SG-209-111			VT-05-675	
	51	Atm Dump SG1	One	1	1	SG-59-116			99-1575	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
			Two	1	1	SG-70116			VT-04-017	
	52	Atm Dump SG2	One	0	1	SG-103-116			01-1566	PSE
			Three	2	1	SG-84-116			VT-05-676	
	53	Steam to Aux FW	One	4	4	SG-81-111			99-1679	
						SG-81-112			99-1680	
						SG-83-111			99-1681	
						SG-83-112			99-1682	
			Two	2	2	SG-81-114			VT-02-602	Support Deleted
						SG-83-114			VT-02-603	Support Deleted
			Three	2	2	SG-81-111			VT-05-677	
						SG-81-113			VT-05-1156	
						SG-83-113			VT-05-678	
	54	Feedwater SG 1	One	7	7	SG-2-112			01-1602	Expansion
						SG-2-114			01-1022	
						SG-2-115			01-1021	
						SG-2-1112			01-1062 01-1603	Reject Re-exam
						SG-2-1113			01-1020	
						SG-2-1114			01-1019	
						SG-2-1115			01-1018	
						SG-2-11803			01-1025	
						SG-13-111			01-1612	Expansion
			Two	7	7	SG-02-1109			VT-04-018	RR#4
						SG-02-1110			VT-04-019	RR#4
						SG-02-1111			VT-04-020	RR#4
						SG-02-11806			VT-04-021	
						SG-02-11811			VT-04-022	RR#4
						SG-13-111			VT-04-023	RR#4
						SG-13-11802			VT-04-024	RR#4
	55	Feedwater SG 2	One	9	9	SG-5-119			01-1173	
						SG-5-1110			01-1174	
						SG-5-1111			01-1175	
						SG-5-1112			01-1036	
						SG-5-1114			01-1477	PSE
						SG-5-11805			01-1037	
						SG-5-11809			01-1038	
						SG-5-11812			01-1039	
						SG-14-111			01-1034	
						SG-14-11804			01-1035	
			Two	7	7	SG-5-114			VT-02-559	
						SG-5-115			VT-02-560 VT-02-656	Reject Re-exam
						SG-5-116			VT-02-561	RR #4
						SG-5-117			VT-02-562	
						SG-5-118			VT-02-564	RR #4
						SG-5-1113			VT-02-563 VT-02-657	Reject Re-exam
						SG-5-1114			VT-02-565	
	56	FW SGI	Two	1	1	SG-202-111			VT-04-025	
	57	Feedwater SG 2	Three	1	1	SG-205-112			VT-05-679	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
	58	Aux & Dwncmr SG1	One	7	7	SG-8-II2			01-1604	
						SG-8-II3			01-1606	
						SG-8-II4			01-1608	
						SG-8-II5			01-1607	
						SG-8-II20			01-1609	
						SG-8-II901			01-1448	
						SG-8-II903			01-1605	
			Two	7	7	SG-8-II6			VT-02-520	RR #4
						SG-8-II7			VT-02-449	RR #4
						SG-8-II8			VT-02-451	Reject
									VT-02-649	Re-exam
						SG-8-II9			VT-02-452	
						SG-8-II10			VT-02-453	
						SG-8-II11			VT-02-454	
						SG-8-II17			VT-02-519	RR #4
	59	Aux & Dwncmr SG2	One	6	6	AF-6-II1			99-1261	
						SG-11-II8			99-1201	
						SG-11-II9			99-1246	
						SG-11-II10			99-1245	
						SG-11-II11			99-1200	
						SG-11-II12			99-1199 99-1332	
			Two	6	6	SG-11-II3			VT-02-702	PSE
						SG-11-II13			VT-02-566	
						SG-11-II14			VT-02-567	
						SG-11-II15			VT-02-568	
						SG-11-II16			VT-04-026	
						SG-11-II17			VT-04-408	RR#4, PSE
						SG-11-II18			VT-02-455	
						SG-11-II19			VT-02-570	
	60	Dwncmr FW SG1	One	1	1	SG-200-II9			99-1668	
						SG-200-II13			99-1669	PSE
						SG-200-II14			99-1670	PSE
			Three	2	2	SG-200-II9			VT-05-680	
						SG-200-II13			VT-05-681	
						SG-200-II14			VT-05-682	
	61	Dwncmr FW SG2	One	0	0	SG-203-II13			99-1671	PSE
						SG-203-II14			99-1672	PSE
			Two	2	2	SG-203-II13			VT-04-027	
						SG-203-II14			VT-04-028	
			Three	1	1	SG-203-II8			VT-05-683	
	62	Aux FW SG1	One	1	1	AF-4-II3			99-1461	
			Two	1	1	AF-18-II1			VT-04-042	
			Three	2	2	AF-18-II2			VT-05-684	
						AF-18-II3			VT-05-685	
	63	Aux FW SG2	One	2	2	AF-6-II2			99-1462	
						AF-16-II1			99-1460	
			Two	2	2	AF-6-II3			VT-04-043	RR#4
						AF-6-II5			VT-04-044	RR#4
			Three	1	1	AF-6-II4			VT-05-686	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
	64	Blowdown SG 1	One	12	12	SG-39-II10			01-1449	
						SG-39-II11			01-1450	Support Deleted
						SG-39-II12			01-1451	
						SG-39-II13			01-1452	Support Deleted
						SG-39-II14			01-1453	Support Deleted
						SG-39-II15			01-1454	
						SG-39-II16			01-1455	
						SG-39-II17			01-1456	Support Deleted
						SG-39-II26			01-1457	
						SG-53-II1			01-1031	Support Deleted
						SG-53-II2			01-1032	Support Deleted
						SG-53-II924			01-1033	
			Two	13	13	SG-39-II1			VT-02-480	Support Deleted
						SG-39-II2			VT-02-481	Support Deleted
						SG-39-II3			VT-02-482	Support Deleted
						SG-39-II4			VT-02-483	
						SG-39-II5			VT-02-484	
						SG-39-II6			VT-02-485	Support Deleted
						SG-39-II27			VT-02-486	Support Deleted
						SG-53-II3			VT-02-488	Support Deleted
						SG-53-II4			VT-02-489	
						SG-53-II5			VT-02-490	
						SG-53-II6			VT-02-491	Support Deleted
						SG-53-II7			VT-02-492	Support Deleted
						SG-39-II922			VT-04-029	RR#4
			Three	5	0	SG-39-II38			VT-05-687	PSE
	65	Blowdown SG 2	One	12	12	SG-48-II2			01-1030	Support Deleted
						SG-48-II3			01-1478	Support Deleted
						SG-48-II4			01-1479	
						SG-48-II19			01-1480	Support Deleted
						SG-48-II20			01-1481	Support Deleted
						SG-48-II21			01-1482	
						SG-48-II925			01-1029	
						SG-52-II1			01-1026	Support Deleted
						SG-52-II2			01-1027	Support Deleted
						SG-52-II3			01-1483	Support Deleted
						SG-52-II4			01-1484	
						SG-52-II923			01-1028	
			Two	11	11	SG-48-II13			VT-02-456	Support Deleted
						SG-48-II14			VT-02-457	RR #4
						SG-48-II15			VT-02-458	Support Deleted
						SG-48-II16			VT-02-459	RR #4
						SG-48-II17			VT-02-460	Support Deleted
						SG-48-II18			VT-02-461	RR #4
						SG-48-II22			VT-02-462	Support Deleted
						SG-48-II23			VT-02-463	RR #4
						SG-48-II24			VT-02-464	RR #4
						SG-48-II25			VT-02-465	Support Deleted

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						SG-48-II26			VT-02-466	Support Deleted
	68	Regen Htexch	Two	2	2	68-10			VT-02-590	
						68-11			VT-02-591	
	70	LPSI Suction A	One	1	1	SI-67-II4			99-1248	
						SI-307-II16			99-1428	PSE
			Three	4	4	SI-241-II20			VT-05-694	RR #4
						SI-241-II22			VT-05-695	Removed
						SI-307-II16			VT-05-696	RR #4
						SI-307-II17			VT-05-697	
	71	LPSI Discharge A	One	1	1	SI-87-II11			99-1247 99-1375	
			Two	5	5	SI-78-II1			VT-02-541	
						SI-78-II2			VT-02-542	
						SI-87-II1			VT-02-543	
						SI-87-II2			VT-02-544	
						SI-87-II3			VT-02-545	
			Three	1	1	SI-78-II3			VT-05-698	RR #4
	73	LPSI Suction B	Two	1	1	SI-308-II14			VT-02-546	
			Three	4	4	SI-34-II4			VT-05-699	RR #4
						SI-194-II1			VT-05-700	RR #4
						SI-308-II12			VT-05-701	RR #4
						SI-308-II13			VT-05-702	RR #4
	74	LPSI B	Three	6	6	SI-129-II1			VT-05-703	RR #4
						SI-129-II2			VT-05-704	RR #4
						SI-129-II3			VT-05-705	RR #4
						SI-129-II4			VT-05-706	RR #4
						SI-129-II5			VT-05-707	
						SI-129-II6			VT-05-708	
	76	CS Suction A	One	1	1	SI-9-II4			99-1376 99-1438	
						SI-67-II1			99-1427	PSE
						SI-67-II3			99-1426	PSE
			Three	3	3	SI-67-II1			VT-05-709	
						SI-67-II2			VT-05-710	
						SI-67-II3			VT-05-711	
	77	CS Discharge A	One	4	4	SI-79-II1			99-1377	
						SI-79-II2			99-1378	
						SI-79-II3			99-1379	
						SI-79-II4			99-1380	
			Two	3	3	SI-79-II5			VT-04-033	RR#4
						SI-79-II6			VT-04-034	RR#4
						SI-82-II2			VT-04-035	RR#4
			Three	3	3	SI-79-II7			VT-05-712	RR #4
						SI-79-II8			VT-05-713	RR #4
						SI-79-II9			VT-05-714	
	79	CS Suction B	One	3	3	SI-79-II4			99-1517	
						SI-34-II2			99-1518	
						SI-34-II3			99-1519	
			Two	1	1	SI-33-II4			VT-04-039	
			Three	2	2	SI-34-II5			VT-05-715	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						SI-34-II6			VT-05-716	RR #4
	80	CS Discharge B	One	3	3	SI-119-II7			99-1527	
						SI-119-II8			99-1528	
						SI-119-II9			99-1529	
			Two	4	4	SI-119-II1			VT-04-040	RR#4
						SI-119-II2			VT-04-041	RR#4
						SI-119-II3			VT-04-045	RR#4
						SI-119-II4			VT-04-046	RR#4
			Three	3	3	SI-119-II5			VT-05-717	
						SI-119-II6			VT-05-718	RR #4
						SI-147-II1			VT-05-719	RR #4
	82	SD Cooling HX A	One	2	2	SI-78-II4			99-1296	
						SI-78-II5			99-1595	
						SI-79-II10			01-1564	PSE
									99-1297	
									01-1458	
			Three	1	1	SI-78-II4			VT-05-723	RR #4
	83	SD Cooling HX A	One	4	4	SI-87-II9			99-1312	
						SI-89-II1			99-1300	
						SI-89-II2			99-1299	
						SI-89-II3			99-1298	
			Two	3	3	SI-87-II4			VT-04-047	
						SI-90-II1			VT-04-320	
						SI-90-II2			VT-04-321	RR#4
			Three	12	12	SI-70-II1			VT-05-724	
						SI-70-II2			VT-05-726	RR #4
						SI-70-II3			VT-05-727	RR #4
						SI-70-II6			VT-05-728	
						SI-70-II7			VT-05-729	
						SI-82-II1			VT-05-730	RR #4
						SI-87-II5			VT-05-731	RR #4
						SI-87-II6			VT-05-732	RR #4
						SI-87-II7			VT-05-733	RR #4
						SI-87-II8			VT-05-734	RR #4
						SI-89-II5			VT-05-735	RR #4
						SI-90-II4			VT-05-736	RR #4
	85	SD Cooling HXB	One	3	3	SI-119-II10			99-1530	
						SI-123-II6			99-1531	
						SI-123-II7			99-1532	
			Two	6	6	SI-119-II11			VT-04-050	RR#4
						SI-119-II13			VT-04-051	RR#4
						SI-119-II14			VT-04-052	RR#4
						SI-123-II2			VT-04-053	RR#4
						SI-123-II5			VT-04-054	RR#4
						SI-123-II8			VT-04-055	RR#4
			Three	1	1	SI-123-II1			VT-05-737	RR #4
	86	SD Cooling HXB	One	3	3	SI-129-II10			99-1406	
						SI-129-II11			99-1405	
						SI-129-II12			99-1407	
			Two	7	7	SI-072-II5			VT-04-056	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						SI-072-II6			VT-04-057	RR#4
						SI-129-II7			VT-04-058	RR#4
						SI-129-II8			VT-04-059	RR#4
						SI-129-II9			VT-02-672	Expansion, RR #4
						SI-135-III			VT-02-675	Expansion, RR #4
						SI-135-II2			VT-04-060	RR#4
						SI-135-II3			VT-04-061	
			Three	15	15	SI-72-III			VT-05-738	RR #4
						SI-72-II2			VT-05-739	RR #4
						SI-72-II3			VT-05-740	RR #4
						SI-72-II4			VT-05-741	RR #4
						SI-72-III2			VT-05-742	
						SI-129-II9			VT-05-743	RR #4
						SI-129-III3			VT-05-744	RR #4
						SI-134-III			VT-05-745	RR #4
						SI-134-II2			VT-05-746	RR #4
						SI-134-II3			VT-05-747	
						SI-134-II5			VT-05-748	RR #4
						SI-134-II6			VT-05-749	RR #4
						SI-134-II7			VT-05-750	RR #4
						SI-134-II8			VT-05-751	RR #4
						SI-147-II2			VT-05-752	RR #4
88	East Wrap		One	8	8	SI-72-III1			99-1533	
						SI-72-III3			99-1534	
						SI-72-III4			99-1535	
						SI-72-II21			01-1333	
						SI-72-II22			01-1334	
						SI-73-III			01-1459	
						SI-73-II2			01-1460	
						SI-73-II3			01-1461	
			Two	0	0	SI-72-III1			VT-02-685	Expansion, RR #4
						SI-72-III3			VT-02-686	Expansion, RR #4
						SI-72-III4			VT-02-687	Expansion, RR #4
						SI-73-II2			VT-02-688	Expansion, RR #4
			Three	6	6	SI-72-III5			VT-05-753	RR #4
						SI-72-III6			VT-05-754	RR #4
						SI-72-III7			VT-05-755	RR #4
						SI-72-III8			VT-05-756	RR #4
						SI-72-III9			VT-05-757	
						SI-72-II20			VT-05-758	
89	East Wrap		One	4	4	SI-194-III2			99-1536	
						SI-194-III3			99-1537	
						SI-194-III4			99-1640	
						SI-194-II23			99-1641	
			Two	0	0	SI-194-III3			VT-02-668	Expansion, RR #4
			Three	1	1	SI-173-III			VT-05-759	RR #4
						SI-194-II23			VT-05-760	RR #4
90	East Wrap		Two	2	2	SI-134-II09			VT-04-062	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						SI-134-II10			VT-04-063	
	91	West Wrap	One	7	7	SI-70II9			99-1255	
						SI-70-II10			99-1254	
						SI-70-II11			99-1253	
						SI-70-II12			99-1252	
						SI-70-II13			99-1249	
						SI-70-II15			99-1251	
						SI-70-II16			99-1250	
			Two	2	2	SI-71-II2			VT-04-064	
						SI-71-II3			VT-04-065	
			Three	1	1	SI-70-II14			VT-05-761	
	92	West Wrap	One	5	5	SI-239-II1			99-1673	Expansion
						SI-239-II2			99-1674	Expansion
						SI-239-II3			99-1598	
						SI-241-II9			01-1565	PSE
						SI-241-II12			99-1418	PSE
						SI-241-II14			99-1417	PSE
						SI-241-II14			99-1419	PSE
						SI-241-II15			99-1597	
						SI-241-II21			99-1596	
			Two	5	5	SI-241-II9			VT-02-653	Expansion, RR #4
						SI-241-II12			VT-02-654	Expansion, RR #4
						SI-241-II14			VT-02-658	Expansion, RR #4
						SI-241-II21			VT-02-660	Expansion, RR #4
						SI-239-II1			VT-04-066	
						SI-239-II2			VT-04-067	
						SI-241-II11			VT-04-068	RR#4
						SI-241-II16			VT-04-069	
			Three	2	2	SI-2-II1			VT-05-762	Removed
						SI-2-II5			VT-05-763	Removed
	93	West Wrap	Two	2	2	SI-89-II10			VT-04-070	RR#4
						SI-89-II13			VT-04-071	
			Three	2	2	SI-89-II11			VT-05-764	
						SI-89-II12			VT-05-765	
	94	LPSI A	One	3	3	SI-89-II7			99-1398	
						SI-89-II8			99-1399	
						SI-89-II9			99-1400	
						SI-241-II5			99-1302	PSE
						SI-241-II7			99-1423	PSE
						SI-241-II8			99-1421	PSE
			Two	7	7	SI-070-II4			VT-02-589	
						SI-070-II5			VT-02-697	
						SI-070-II8			VT-02-495	
						SI-241-II6			VT-02-624	RR #4
						SI-241-II7			VT-02-642	RR #4
						SI-241-II08			VT-04-072	RR#4
						SI-241-II17			VT-04-073	RR#4
			Three	5	5	SI-89-II6			VT-05-766	
						SI-241-II2			VT-05-767	RR #4

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						SI-241-II3			VT-05-768	RR #4
						SI-241-II4			VT-05-769	RR #4
						SI-241-II5			VT-05-770	RR #4
	95	LPSI B	One	6	6	SI-72-II8			99-1401	
						SI-72-II10			99-1402	
						SI-134-II11			99-1403	
						SI-134-II12			99-1404	
						SI-194-II3			99-1414	
						SI-194-II5			99-1415	
			Two	10	10	SI-72-II10			VT-02-644	Expansion, RR #4
						SI-194-II5			VT-02-650	Expansion, RR #4
						SI-072-II7			VT-04-074	RR#4
						SI-072-II9			VT-04-075	RR#4
						SI-194-II4			VT-04-076	RR#4
						SI-194-II7			VT-04-077	RR#4
						SI-194-II8			VT-04-078	RR#4
						SI-194-II9			VT-04-079	RR#4
						SI-194-II10			VT-04-080	RR#4
						SI-194-II11			VT-04-081	RR#4
						SI-194-II15			VT-04-082	RR#4
						SI-194-II21			VT-04-083	RR#4
			Three	3	3	SI-134-II4			VT-05-771	
						SI-194-II2			VT-05-772	
						SI-194-II6			VT-05-773	
	96	LPSI to Loop 1A	One	3	3	SI-202-II7			99-1342	
						SI-202-II8			99-1343	Support Deleted
						SI-202-II9			99-1344	Support Deleted
			Two	8	8	SI-202-II1			VT-02-670	Expansion
						SI-202-II2			VT-02-467	RR #4
						SI-202-II3			VT-02-468	RR #4
						SI-202-II4			VT-02-469	Reject
						SI-202-II6			VT-02-651	Re-exam
						SI-202-II7			VT-02-470	RR #4
						SI-202-II7			VT-02-671	Expansion
						SI-202-II10			VT-02-471	Support Deleted
						SI-202-II11			VT-02-472	Support Deleted
						SI-202-II12			VT-02-673	Expansion
						SI-202-II15			VT-02-473	RR #4
						SI-202-II16			VT-02-674	Expansion
						SI-202-II18			VT-02-676	Expansion
						SI-202-II5			VT-04-084	Snubber deleted
	97	LPSI to Loop 1B	One	10	10	SI-220-II8			01-1468	
						SI-220-II9			99-1333	
						SI-220-II10			99-1334	
						SI-220-II11			99-1335	Support Deleted
						SI-220-II12			99-1336	
						SI-220-II13			99-1337	
						SI-220-II14			99-1338	Support Deleted
						SI-220-II15			99-1339	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						SI-220-II19			99-1340	
						SI-220II22			99-1341	Support Deleted
			Two	7	7	SI-220-II11			VT-02-444	
						SI-220II5			VT-02-677	Expansion
						SI-220-II16			VT-02-446	RR #4
						SI-220-II17			VT-02-447	
						SI-220-II18			VT-02-448	
						SI-220II20			VT-02-443 VT-02-648	Reject RR #4 Re-exam
						SI-220II21			VT-02-445	Support Deleted
						SI-220II27			VT-02-678	Expansion
						SI-220II28			VT-02-450	Support Deleted
	98	LPSI to Loop 2A	One	2	2	SI-155-II5			99-1329	
						SI-155-II6			99-1328	
			Two	5	5	SI-155-II6			VT-02-679	Expansion
						SI-155-II1			VT-04-085	
						SI-155-II2			VT-04-086	Snubber deleted
						SI-155-II3			VT-04-087	Snubber deleted
						SI-155-II4			VT-04-088	Snubber deleted
						SI-155-II7			VT-04-089	
	99	LPSI to Loop 2B	Two	5	5	SI-174-II4			VT-02-680	Expansion
						SI-174-II7			VT-02-554	Support Deleted
						SI-174-II8			VT-02-555	
						SI-174-II9			VT-02-556	Support Deleted
						SI-174-II11			VT-02-681	Expansion
						SI-174-II12			VT-02-682	Expansion
						SI-174-II13			VT-02-558	
						SI-174-II10			VT-04-090	RR#4
	100	LPSI Suction A	One	2	2	SI-241-II19			99-1330 99-1642 01-1469	Reject Re-exam Re-exam
						SI-369-II1			99-1331	
			Two	1	1	84-5			VT-02-696	
	101	Cont LPSI Train B Suction	Two	0	0	SI-194-II16			VT-02-683	Expansion
						SI-194-II22			VT-02-684	Expansion
			Three	8	1	85-5			VT-05-774	
	102	SI Suction A	One	6	6	SI-8-II4			99-1303	PSE
						SI-9-II1			99-1429	PSE
						SI-307-II2			99-1422	PSE
						SI-307-II5			99-1304	PSE
						SI-307-II6			99-1425	PSE
						SI-307-II7			99-1424	PSE
						SI-307-II2			01-1462	
						SI-307-II3			01-1463	
						SI-307-II4			01-1464	Support Deleted
						SI-307-II5			01-1465	
						SI-307-II8			01-1466	
						SI-307-II15			01-1467	
			Two	7	7	SI-8-II1			VT-02-436	RR #4

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						SI-8-II2			VT-02-437	Support Deleted
						SI-8-II3			VT-02-438	RR #4
						SI-8-II4			VT-02-439	RR #4
						SI-307-II6			VT-02-440	RR #4
						SI-307-II7			VT-02-441	RR #4
						SI-307-II14			VT-02-442	Support Deleted
			Three	7	7	SI-8-II5			VT-05-775	RR #4
						SI-9-III			VT-05-776	RR #4
						SI-9-II2			VT-05-777	RR #4
						SI-9-II5			VT-05-778	RR #4
						SI-307-II9			VT-05-779	RR #4
						SI-307-II10			VT-05-780	RR #4
						SI-307-II11			VT-05-781	RR #4
	103	Refuel Suction A	One	6	6	CH-142-II3			99-1420	PSE
						CH-142-II13			99-1408	
						CH-142-II14			99-1409	
						CH-142-II15			99-1410	
						CH-142-II19			99-1412	
						CH-142-II22			99-1411	
						CH-424-III			99-1413	
						CH-424-II2			99-1386	PSE
						CH-424-II3			99-1385	PSE
			Two	6	6	CH-142-II8			VT-02-504	
						CH-142-II20			VT-02-522	
						CH-142-II21			VT-02-505	
						CH-424-II2			VT-02-499	
						CH-424-II3			VT-02-500	RR #4
						CH-424-II6			VT-02-521	
			Three	6	6	CH-142-II1			VT-05-782	
						CH-142-II2			VT-05-783	
						CH-142-II3			VT-05-784	
						CH-142-II4			VT-05-785	
						CH-142-II5			VT-05-786	Removed
						CH-142-II6			VT-05-787	
	104	SI Suction B	One	7	7	SI-33-II1			99-1520	Support Deleted
						SI-33-II2			99-1521	
						SI-33-II3			99-1522	
						SI-308-II5			99-1523	
						SI-308-II8			99-1524	
						SI-308-II10			99-1525	
						SI-308-II11			99-1526	
			Two	7	7	SI-308-II1			VT-02-547	
						SI-308-II2			VT-02-548	
						SI-308-II3			VT-02-549	
						SI-308-II4			VT-02-550	
						SI-308-II6			VT-02-571	Support Deleted
						SI-308-II7			VT-02-551	Support Deleted
						SI-308-II15			VT-04-091	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
			Three	6	6	SI-31-I11			VT-05-788	RR #4
						SI-31-I12			VT-05-789	
						SI-31-I13			VT-05-790	Removed
						SI-31-I14			VT-05-791	RR #4
						SI-31-I15			VT-05-792	RR #4
						SI-308-I19			VT-05-793	RR #4
	105	Refuel. Suction B	One	7	7	CH-149-I19			01-1396	
						CH-149-I110			01-1397	
						CH-149-I112			01-1398	
						CH-149-I113			01-1399	
						CH-149-I114			01-1400	
						CH-149-I121			01-1401	
						CH-149-I128			01-1402	
			Two	7	7	CH-149-I14			VT-04-092	
						CH-149-I15			VT-04-093	
						CH-149-I16			VT-04-094	
						CH-149-I17			VT-04-095	
						CH-149-I125			VT-04-096	
						CH-149-I126			VT-04-097	
						CH-149-I127			VT-04-098	
			Three	8	8	CH-149-I11			VT-05-794	
						CH-149-I12			VT-05-795	
						CH-149-I13			VT-05-796	
						CH-149-I18			VT-05-797	
						CH-425-I11			VT-05-798	
						CH-425-I16			VT-05-799	
						CH-425-I17			VT-05-800	
						CH-425-I18			VT-05-801	
	106	HPSI Discharge A	One	8	8	SI-99-I11			01-1046	
						SI-99-I12			01-1047	
						SI-100-I11			01-1048	
						SI-100-I12			01-1049	
						SI-100-I13			01-1050	
						SI-100-I15			01-1051	
						SI-100-I134			01-1052	
						SI-106-I11			01-1053	
			Two	7	7	SI-100-I19			VT-04-099	
						SI-100-I110			VT-04-100	
						SI-100-I111			VT-04-101	
						SI-105-I1B			VT-04-102	RR#4
						SI-105-I1C			VT-04-103	RR#4
						SI-105-I1D			VT-04-104	RR#4
						SI-105-I1E			VT-04-105	RR#4
			Three	7	7	SI-100-I14			VT-05-802	
						SI-100-I16			VT-05-803	RR #4
						SI-100-I17			VT-05-804	RR #4
						SI-100-I18			VT-05-805	RR #4
						SI-100-I115			VT-05-806	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						SI-100-II16			VT-05-807	
						SI-100-II36			VT-05-808	RR #4
	107	HPSI Discharge B	One	6	6	SI-107-II3			01-1057	
						SI-107-II11			01-1056	
						SI-107-II12			01-1059	
						SI-112-II C			01-1055	
						SI-112-II G			01-1054	
						SI-112-II H			01-1058	
			Two	6	6	SI-107-II5			VT-04-106	RR#4
						SI-107-II6			VT-04-107	
						SI-107-II7			VT-04-108	
						SI-107-II8			VT-04-109	
						SI-107-II9			VT-04-110	
						SI-107-II10			VT-04-111	
			Three	6	6	SI-107-II1			VT-05-809	RR #4
						SI-107-II2			VT-05-810	RR #4
						SI-107-II4			VT-05-811	RR #4
						SI-107-II46			VT-05-812	RR #4
						SI-107-II48			VT-05-813	RR #4
						SI-112-II D			VT-05-814	
	108	HPSI Discharge	One	11	11	SI-100-II22			99-1388	
						SI-100-II23			99-1387	
						SI-100-II24			99-1389	
						SI-100-II25			99-1390	
						SI-100-II26			99-1391	
						SI-100-II27			99-1392	
						SI-100-II28			99-1393	
						SI-100-II29			99-1394	
						SI-100-II31			99-1395	
						SI-100-II32			99-1396	
						SI-100-II35			99-1397	
			Two	11	11	SI-100-II12			VT-04-112	RR#4
						SI-100-II13			VT-04-113	RR#4
						SI-100-II18			VT-04-114	RR#4
						SI-100-II19			VT-04-115	RR#4
						SI-100-II20			VT-04-116	RR#4
						SI-100-II21			VT-04-117	RR#4
						SI-118-II A			VT-04-118	RR#4
						SI-118-II B			VT-04-119	RR#4
						SI-118-II D			VT-04-120	RR#4
						SI-118-II R			VT-04-121	RR#4
						SI-118-II S			VT-04-122	RR#4
			Three	11	11	SI-118-II E			VT-05-815	RR #4
						SI-118-II F			VT-05-816	RR #4
						SI-118-II G			VT-05-817	RR #4
						SI-118-II H			VT-05-818	RR #4
						SI-118-II J			VT-05-819	RR #4
						SI-118-II K			VT-05-820	RR #4

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						SI-118-III L			VT-05-821	RR #4
						SI-118-III M			VT-05-822	RR #4
						SI-118-III N			VT-05-823	RR #4
						SI-118-III P			VT-05-824	RR #4
						SI-118-III Q			VT-05-825	RR #4
	109	HPSI Discharge	One	7	7	SI-107-III 3			01-1335	
						SI-107-III 4			01-1336	
						SI-107-III 5			01-1337	
						SI-107-III 6			01-1338	
						SI-107-III 21			01-1339	
						SI-107-III 47			01-1340	
						SI-107-III 50			01-1341	
			Two	7	7	SI-107-III 9			VT-04-123	RR#4
						SI-107-III 20			VT-04-124	RR#4
						SI-107-III 25			VT-04-125	RR#4
						SI-107-III 26			VT-04-126	RR#4
						SI-107-III 27			VT-04-127	RR#4
						SI-107-III 28			VT-04-128	RR#4
						SI-107-III 29			VT-04-129	RR#4
			Three	7	7	SI-107-III 30			VT-05-826	
						SI-107-III 31			VT-05-827	
						SI-107-III 32			VT-05-828	
						SI-107-III 34			VT-05-829	
						SI-107-III 35			VT-05-830	
						SI-107-III 36			VT-05-831	
						SI-107-III 37			VT-05-832	
	110	HPSI Discharge	One	7	7	SI-103-III B			01-1403	
						SI-103-III D			01-1404	
						SI-103-III E			01-1405	
						SI-218-III 1			01-1342	
						SI-218-III 2			01-1343	
						SI-218-III 3			01-1344	
						SI-218-III 4			01-1345	
			Two	7	7	SI-107-III 39			VT-04-130	RR#4
						SI-107-III 41			VT-04-131	
						SI-107-III 42			VT-04-132	
						SI-107-III 43			VT-04-133	
						SI-107-III 44			VT-04-134	RR#4
						SI-107-III 45			VT-04-135	RR#4
						SI-107-III 49			VT-04-136	RR#4
			Three	6	6	SI-103-III A			VT-05-833	RR #4
						SI-107-III A			VT-05-834	RR #4
						SI-110-III A			VT-05-835	RR #4
						SI-218-III A			VT-05-836	RR #4
						SI-218-III B			VT-05-837	
						SI-236-III B			VT-05-838	RR #4
	111	HPSI Discharge	One	3	3	SI-100III 37			01-1348	
						SI-100III A			01-1346	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						SI-100HB			01-1347	
			Two	4	4	SI-236-H1			VT-04-137	
						SI-236-H2			VT-04-138	RR#4
						SI-236-H3			VT-04-139	RR#4
						SI-236-H4			VT-04-140	
			Three	3	3	SI-100-H130			VT-05-839	
						SI-100-H138			VT-05-840	RR #4
						SI-100-H140			VT-05-841	RR #4
112		HPSI Discharge	One	3	3	SI-176-H1			01-1349	
						SI-176-H2			01-1350	
						SI-176-H3			01-1351	
			Two	3	3	SI-100-H17			VT-04-141	
						SI-102-H1A			VT-04-142	
						SI-102-H1B			VT-04-143	
			Three	4	4	SI-101-H1A			VT-05-842	
						SI-101-H1B			VT-05-843	RR #4
						SI-101-H1C			VT-05-844	
						SI-101-H1D			VT-05-845	
113		HPSI Discharge	One	5	5	SI-107-H22			01-1061	
						SI-107-H24			01-1060	
						SI-157-H2			01-1352	
						SI-157-H3			01-1353	
						SI-157-H4			01-1354	
			Two	4	4	SI-106-H1A			VT-04-144	
						SI-109-H1A			VT-04-145	
						SI-157-H1A			VT-04-146	
						SI-176-H1A			VT-04-147	
			Three	4	4	SI-157-H11			VT-05-846	RR #4
						SI-157-H15			VT-05-847	RR #4
						SI-157-H16			VT-05-848	
						SI-157-H19			VT-05-849	RR #4
115		HPSI 2A & 2B	Two	3	3	SI-157-H10			VT-02-502	Support Deleted
						SI-157-H11			VT-02-503	RR #4
						SI-176-H4			VT-02-501	RR #4
118		HPSI A Recirc	Three	24	24	SI-106-H12			VT-05-850	
						SI-106-H13			VT-05-851	
						SI-106-H14			VT-05-852	
						SI-106-H15			VT-05-853	
						SI-106-H16			VT-05-854	
						SI-106-H17			VT-05-855	
						SI-106-H18			VT-05-856	RR #4
						SI-106-H19			VT-05-857	
						SI-106-H110			VT-05-858	RR #4
						SI-106-H111			VT-05-859	RR #4
						SI-106-H112			VT-05-860	RR #4
						SI-106-H113			VT-05-861	
						SI-106-H114			VT-05-862	
						SI-106-H115			VT-05-863	

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
						SI-106-II16			VT-05-864	
						SI-106-II18			VT-05-865	
						SI-106-II19			VT-05-866	
						SI-106-II20			VT-05-867	
						SI-106-II21			VT-05-868	
						SI-106-II22			VT-05-869	
						SI-106-II23			VT-05-870	
						SI-106-II24			VT-05-871	
						SI-106-II25			VT-05-872	
						SI-106-II26			VT-05-873	
	119	HPSI A Recirc	Three	30	30	SI-114-II1			VT-05-874	
						SI-114-II2			VT-05-875	
						SI-114-II3			VT-05-876	
						SI-114-II4			VT-05-877	
						SI-114-II5			VT-05-878	
						SI-114-II6			VT-05-879	
						SI-114-II7			VT-05-880	
						SI-114-II8			VT-05-881	
						SI-114-II9			VT-05-882	
						SI-114-II10			VT-05-883	RR #4
						SI-114-II12			VT-05-884	RR #4
						SI-114-II13			VT-05-885	
						SI-114-II14			VT-05-886	
						SI-114-II15			VT-05-887	
						SI-114-II16			VT-05-888	
						SI-114-II17			VT-05-889	
						SI-114-II18			VT-05-890	
						SI-114-II21			VT-05-891	
						SI-114-II22			VT-05-893	
						SI-114-II25			VT-05-894	
						SI-114-II26			VT-05-895	
						SI-114-II27			VT-05-896	RR #4
						SI-319-IIA			VT-05-897	RR #4
						SI-319-IIB			VT-05-898	
						SI-319-IIC			VT-05-899	
						SI-319-IID			VT-05-900	
						SI-319-IIIE			VT-05-901	
						SI-319-IIIF			VT-05-902	
						SI-319-IIIG			VT-05-903	
						SI-319-IIII			VT-05-904	
F 1.40	41	SG 1	One	2	2	41-42			01-1498	
						41-43			01-1499	
			Three	0	0	41-41			VT-05-1166	PSE
						41-42			VT-05-1167	PSE
	42	SG 1	Two	2	2	42-42			VT-04-011	
						42-43			VT-04-013	
			Three	0	0	42-41			VT-05-672	PSE
						42-42			VT-05-673	PSE

APPENDIX A

INSERVICE INSPECTION SUMMARY REPORT

ASME Item no	Zone	Comp/Sys	Insp Per	Amt Req	Amt Comp	Item ID	Vol	Reports Surf	Visual	Remarks
	72	LPSI Pump A	One	3	3	72-3A			01-1472	
						72-3B			01-1472	
						72-3C			01-1472	
	75	LPSI Pump B	Two	3	3	73-3A			VT-04-030	
						73-3B			VT-04-031	
						73-3C			VT-04-032	
	78	CS Pump A	Two	3	3	80-3A			VT-04-036	
						80-3B			VT-04-037	
						80-3C			VT-04-038	
	81	Cont Spray B	Three	3	3	81-3A			VT-05-720	
						81-3B			VT-05-721	
						81-3C			VT-05-722	
	116	HPSI Pump A	One	4	4	116-1A			01-1474	
						116-1B			01-1474	
						116-1C			01-1474	
						116-1D			01-1474	
	117	HPSI Pump B	Two	4	4	117-1A			VT-04-148	
						117-1B			VT-04-149	
						117-1C			VT-04-150	
						117-1D			VT-04-151	

APPENDIX B

CODE LIMITATIONS

REFUELING OUTAGE NUMBER ELEVEN

CODE LIMITATIONS

ASME ITEM	ZONE/COMPONENT	ITEM ID	REPORT NO.
-----------	----------------	---------	------------

B 9.11	29 PZR Spray	29-2	UT-05-165
B 9.11	39 HPSI A	39-33-A	UT-05-221

Limitation Single-sided Austenitic weld examinations less than 90% coverage based on the Section XI Appendix VIII PDI demonstration.

ASME ITEM	ZONE/COMPONENT	ITEM ID	REPORT NO.
-----------	----------------	---------	------------

B 9.11	24 SI 1B	11-10	UT-05-163
B 9.11	26 SI 2B	15-9	UT-05-164 (77.93%)

Limitation UT examinations coverage less than 90%, due to weld configuration.

APPENDIX C

FORM NIS-1

APS

NIS-1 FORM

OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

1. OWNER - *ARIZONA PUBLIC SERVICE COMPANY, et al*
ADDRESS - *P.O. BOX 52034, PHOENIX, ARIZONA 85072*
2. PLANT - *PALO VERDE NUCLEAR GENERATING STATION*
ADDRESS - *5801 SOUTH WINTERSBURG ROAD; TONOPAH, ARIZONA 85354-7529*
3. UNIT NUMBER - 1
4. OWNERS' CERTIFICATE OF AUTHORIZATION - *NONE*
5. COMMERCIAL SERVICE DATE - January 28, 1986
6. COMPONENTS INSPECTED:

COMPONENT OR APPURTENANCE	MANUFACTURER OR INSTALLER	SERIAL NUMBER	STATE OR PROVINCE	NATIONAL BOARD NO
------------------------------	------------------------------	------------------	----------------------	----------------------

This report is a summary of the second interval third period examinations performed to date for Unit 1. This includes examinations performed on the replacement steam generators, associated piping and other modifications requiring preservice examination. The items examined, along with the examination report numbers, are listed in Appendix A.

APS

NIS-1 BACK

OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

7. EXAM DATES 5-11-2004 TO 12-24-2006
8. INSPECTION INTERVAL FROM 7-18-1998 TO 7-17-2008
9. ABSTRACT OF EXAMINATIONS. INCLUDE A LIST OF EXAMINATIONS AND A STATEMENT CONCERNING STATUS OF WORK REQUIRED FOR CURRENT INTERVAL.
- The items examined, along with the examination report numbers, are listed in Appendix A. The examinations are listed by ASME Category and Item Numbers with the corresponding examination report numbers.

10. ABSTRACT OF CONDITIONS NOTED

The evaluation of the results from the ISI examinations indicate the integrity of the systems have been maintained. There were no rejectable indications found during this ISI inspection activity.

11. ABSTRACT OF CORRECTIVE MEASURES RECOMMENDED AND TAKEN

There were no rejectable indications found during this ISI inspection activity.

Several repairs and replacements have been performed since the last summary report due to routine or corrective maintenance. The work was performed in accordance with ASME Section XI and APS Work Control procedures. Applicable NIS-2 forms are included in Appendix D and a copy maintained on file at Palo Verde Nuclear Generating Station by Arizona Public Service Company.

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 3/9/06 SIGNED: ARIZONA PUBLIC SERVICE COMPANY BY Michael D. Melton

CERTIFICATE OF INSERVICE 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 ARIZONA EMPLOYED BY HSB CT OF HARTFORD, CONNECTICUT HAVE INSPECTED THE COMPONENTS DESCRIBED IN THIS OWNERS REPORT DURING THE PERIOD 5-11-04 TO 12-24-06, AND STATE THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE OWNER HAS PERFORMED EXAMINATIONS AND TAKEN CORRECTIVE MEASURES DESCRIBED IN THIS OWNERS REPORT IN ACCORDANCE WITH THE REQUIREMENTS OF THE ASME CODE, SECTION XI. BY SIGNING THIS CERTIFICATE NEITHER THE INSPECTOR NOR HIS EMPLOYER MAKES ANY WARRANTY, EXPRESSED OR IMPLIED, CONCERNING THE EXAMINATIONS AND CORRECTIVE MEASURES DESCRIBED IN THIS OWNERS REPORT. FURTHERMORE, NEITHER THE INSPECTOR NOR HIS EMPLOYER SHALL BE 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 RS [Signature] COMMISSIONS NB 9685 "ANIC" Az 264
NAT'L BOARD, STATE, PROVINCE

DATE 3-10-06

APPENDIX D

FORMS NIS-2

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PSPAL080 spool S-035
- 2.. Item Description: Spool S-035 of 1PSPAL080
3. N-5 Data Package Number: 1SP01-2
4. W.O. Number: 211711
5. Original Construction Code Edition: 1974 Edition, Summer 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: To remove and replace the uncoated spool with a coated spool, also to allow Engineering to gather base line data for Sp spool inspections in the future..
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
This spool was installed uncoated in the prior inspection. Replacing with a coated spool..

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Summer Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☐ YES ☒ NO

Initial [Signature] Date 9-16-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial [Signature] Date 9-16-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial [Signature] Date 9-16-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial [Signature] Date 9-16-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
10" PIPE	APN 00060198	N/A	ADD 00060198 RK2672	MR 971898
10" WN FLANGES	APN 00060294	N/A	DAB9	MR 971898
STUDS	APN ⁰⁰⁰⁶⁰³¹⁹ 43110014	N/A	NAN	¹⁰¹²⁰²¹ MR 988472
NUTS	APN ⁴³¹²¹²⁶³ 00062506	N/A	8077124	⁵⁰²⁹⁶³ MR 988472

18. Planner [Signature] 9-16-05
Signature Date

Printed Name: Martin J Sullivan

19. ISI [Signature] 9-16-05
Signature Date

Printed Name: WILEY AHLSTROM Log Entry 6071

20. ANII [Signature] 9-16-05
Signature Date

Printed Name: ROBERT G. HOUSTON

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 09/16/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 211711

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SP

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Summer 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
1PSPSAL080-S-35	Pullman power products	1-SP-080-S35	N/A	1PSPAL080	1979	Replacement	YES

7. Description of Work: Spool replaced to enable engineering to inspect the SP line.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Replaced to allow engineering to perform an inspection of the spray pond piping. w.o.211711.

Pre-Pressured Test WO Review – ISI Alan Monow

ANII RL System

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: RL System SR. ISI ENGINEER Date: 11/4/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 9-16-05 to 11-4-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL System
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 11-4-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JSIAFE0338
2. Item Description: Conatiment Spray Pump "A" Discharge Flow Element
3. N-5 Data Package Number: ISI06-1 4. W.O. Number: 2590632
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Remove flow element and approximately 2 foot of upstream piping, install new flange, spool and annubar IAW DMWO 2316467.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Replacement is IAW DMWO 2316467

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☒ NO
11-5-05

Initial ME Date 04/15/2005 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial ME Date 04/15/2005 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial ME Date 04/15/2005 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial ME Date 04/15/2005 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Flanged Pipe Section	000 65137	13703.2.1		^{na} 967693-009
Annubar Flow Element	000 65137	13703.1.1		^{na} 967693-009
10" RF Flange	000 68314		CBS	^{na} 967693-005
Rod THREADED 1.125"	43140308		MYM	^{na} 967693-003
Nut Heavy Hex 1.125"	43120595		AXU	^{na} 967693-002

18. Planner Glenn E. Moore 4/14/05 Printed Name: Glenn E. Moore
Signature Date

19. ISI Alan Morrow 5/11/05 Printed Name: Alan Morrow Log Entry am
Signature Date

20. ANII Robert Hogstrom 5-2-05 Printed Name: Robert Hogstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/22/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2590632

3. Work Performed by: Arizona Public Service Company

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection System (SI) ASME Sect. III Class 2

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Flanged Pipe Section	Dietrich Standard	13703.2.1	N/A	1JSIAFE0338	2004	Replacement	Yes
Flanged Pipe Section	Dietrich Standard	13703.1.1	N/A	1JSIAFE0338	2004	Replacement	Yes
10" RF Pipe Flange	N/A	N/A	N/A	Ht. # CBS	2005	Replacement	No
Rod, Threaded 1.125"	N/A	N/A	N/A	Ht. # MYM	2005	Replacement	No
Nut Heavy Hex 1.125"	N/A	N/A	N/A	Ht. # AXU	2005	Replacement	No

7. Description of Work: Remove flow element and section of pipe and install new spool and annubar element.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ N-416-2 ☒

Other ☐

Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Flow Element 1JSIAFE0338 to be removed along with upstream flange and approximately 2 feet of piping. This will be replaced with a new flange and spool assembly containing an annubar element IAW EDC 2003-00486 and V.O. 2590632.

Prepressure Test Review

Alan Morrow
IST

N/A
ANZI

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Morrow IST Engineer Date: 12/1/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 5-2-05 to 12-1-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RLS
Inspector's Signature

Commissions: Az 264

Date: 12-1-05

FORM NPP-1 CERTIFICATE HOLDERS- DATA REPORT FOR FABRICATED NUCLEAR PIPING SUBASSEMBLIES*

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

1. Fabricated and certified by Dieterich Standard Inc., Box 9000, 1901 North 71st Street, Boulder, CO 80301
2. Fabricated for Pinnacle West Capital Corp. PO Box 53940 Phoenix Az 85072-3940
3. Location of Installation: APS- Palo Verde 5801 South Wintersburg Rd. Tonopah Az 85354
4. Identification 13703.2.1 CRN-n/a SU-10047 AA Nat'l Bd. # n/a 2004
5. ASME Code, Section III, 1974 Edition, Winter 1975 Addenda, Class 2 Code Case- N/A
6. Shop-hydrostatic test 1480 psi at Ambient room temperature degrees F. (if performed)
7. Description of piping- Model MCJSFN01 Flanged pipe section
8. Certificate Holders= Data Report properly identified and signed by Commissioned Inspectors have been furnished for the following items of this Report: N/A
9. Remarks: NA

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this Report are correct and that the fabrication of the described piping conforms to the rules for construction of the ASME Code, Section III.

NPT Certificate of Authorization No. N-1728 Expires: April 29, 2004

Date: 3/15/2004

Dieterich Standard Corp.

Signed: B. Rijn

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 of Colorado, and employed by One Beacon America Insurance Company of Boston have inspected the component described in this Data Report on 3/15/2004 and state that, to the best of my knowledge and belief, the Certificate Holder has constructed this component 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 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: 3/15/2004 Signed [Signature]

Commissions: NB 9625, ANB Colo. 326

* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8-1/2 x 11, (2) information 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.

1. Dieterich Standard Inc., Box 9000, 5601 North 71st Street, Boulder CO 80301
2. Pinnacle West Capital Corp. PO Box 53940 Phoenix AZ. 85072-3940
3. APS- Palo Verde 5801 South Winersburg Rd. Tonopah AZ. 85384
4. 13703.2.1 CRN- n/a SU-10047 AA Nat'l Bd. #- n/a Code Case- n/a 2004
5. Flanged pipe section MCJSFN01

Pipe section 10" sch 40 SA-312

Flanges 10" 400#, Flanged pipet, Socket weld fitting,
Opposite side support plug SA-182

Studs SA-564

Nuts SA-194

Weld filler, Tag ring. SFA 5.9

Certificate holder B. Rings date 3/15/04

Authorized inspector [Signature] date 3/15/04

**FORM NPP-1 CERTIFICATE HOLDERS= DATA REPORT FOR FABRICATED
NUCLEAR PIPING SUBASSEMBLIES***

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

1. Fabricated and certified by Dieterich Standard Inc., Box 9000, 5600 North 71st Street, Boulder, CO 80301
2. Fabricated for Pinnacle West Capital Corp., PO Box 53940 Phoenix Az 85072-3940
3. Location of Installation: APS- Palo Verde 5801 South Wintersburg Rd. Tonopah Az 85354
4. Identification 13703.1.1 CRN-n/a SU-10047 AA Nat'l Bd. #- n/a 2004
5. ASME Code, Section III, Division 1: 1974 Edition, Winter 1975 Addenda. Class 2 Code Case- N/A
6. Shop-hydrostatic test 1480 psi at Ambient room temperature degrees F. (if performed)
7. Description of piping- Annubar Flow Sensor Model NFF+26s, 316/316Lss, (piping sub-assembly)
8. Certificate Holders= Data Report properly identified and signed by Commissioned Inspectors have been furnished for the following items of this Report: N/A
9. Remarks: NA

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization No. N-1728 Expires: April 29, 2004

Date: 3/15/2004

Dieterich Standard Corp.

Signed: B. Hays

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 of Colorado, and employed by One Beacon America Insurance Company of Boston have inspected the component described in this Data Report on 3/15/04 and state that, to the best of my knowledge and belief, the Certificate Holder has constructed this component 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: 3/15/2004 Signed [Signature]

Commissions: NB 9625, ANB Colo. 326

* 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.

1. Dieterich Standard Inc., Box 9000, 5601 North 71st Street, Boulder CO 80301
2. Pinnacle West Capital Corp. PO Box 53940 Phoenix AZ 85072-3940
3. APS- Palo Verde 5801 South Winersburg Rd. Tonopah AZ. 85384
4. 13703.1.1 CRN- n/a SU-10047 AA Nat'l Bd. # n/a Code Case- n/a 2004
5. Annubar flow sensor model NFF+26s 316/316Lss

Head, tips,

SA-479

Transition

SA-312

Sensor flange, Support disc

SA-182

Velocity probe (sensor)

SA-240

Sensor tubes

SA-213

Weld filler, Tag ring.

SFA 5.9

Certificate holder B. Riza date 3/15/2004Authorized inspector [Signature] date 3/15/2004

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 3

1. Component ID 1MRCEX02
- 2.. Item Description: Reactor Coolant System Pressurizer
3. N-5 Data Package Number: 1RC01-1A
4. W.O. Number: 2614240
5. Original Construction Code Edition: 1971 Edition, Winter 1973 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Install a Temper Bead Weld Pads and new Inconel 690 sleeves at all Pressurizer Heater locations. Reference DMWO 2513813 for design requirements.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Replacement of the sleeves with alloy 690 material is being done to prevent failure of the sleeves due to Primary Water Stress Corrosion Cracking (PWSCC) See DMWO for more detailed evalution.
10. Repair/Replacement Work Organization: Welding Services Incorporated
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1971 Edition 1973 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: ASME Section XI 1992 and 1992 Addenda and Relief Request #23
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO
- Initial N/A Date _____ If required, include a step in the W.O. to perform Preservice Inspection
15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO
- Initial [Signature] Date 10/18/05 If required, include a step in the W.O. for ISI & ANII Inspection.
- Initial [Signature] Date 10/18/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
- Initial [Signature] Date 10/18/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Pressurizer Heater Sleeves † BS, A12, B12, A14 (Except A5 & A7 locations)	APN 00076267	N/A	NX3677HK11	MR 1017844
Pressurizer Heater Sleeves A14 only (A5 & A7 locations only)	APN 00062037	N/A	NX0911HK	MR 548191
Pressurizer Heater Sleeves A5, BS, A7, A12, B12	APN 00094183	N/A	NX4417HK13	MR 1036876

18. Planner [Signature] 10/18/05 Printed Name: Herbert L. Green
Signature Date
19. ISI [Signature] 10/19/05 Printed Name: R.P. INDAPE Log Entry [Signature]
Signature Date
20. ANII [Signature] 10-20-05 Printed Name: R.G. HOOSTON
Signature Date

ASME SECTION XI - REPAIR / REPLACEMENT

Page 2 of 3

1. Component ID 1MRCEX02
- 2.. Item Description: Reactor Coolant System Pressurizer
3. N-5 Data Package Number: 1RC01-1A 4. W.O. Number: 2614240
5. Original Construction Code Edition: 1971 Edition, Winter 1973 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Remove and Reinstall 36 Pressurizer Heaters and install new replacement heaters at Pressurizer Heater locations 1MRCEA01 thru A18 and B01 thru B18. See Page 3 of 3 for additional affected equipment information, Reference DMWO 2513813 for design requirements.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Replacement of the sleeves with alloy 690 material is being done to prevent failure of the sleeves due to Primary Water Stress Corrosion Cracking (PWSCC) See DMWO for more detailed evaluation.
10. Repair/Replacement Work Organization: Welding Services Incorporated
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 1, 1971 Edition 1973 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: ASME Sec. III, 1974 Ed., Winter 1975 Addenda, & Relief Req. #30.
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO
- Initial N/A Date _____ If required, include a step in the W.O. to perform Preservice Inspection
15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO
- Initial [Signature] Date 10/18/05 If required, include a step in the W.O. for ISI & ANII Inspection.
- Initial [Signature] Date 10/18/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
- Initial [Signature] Date 10/18/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Pzr Htr 1MRCEA01	APN 44450049	RP-2086-027	N/A	MR 1027570
Pzr Htr 1MRCEA02	APN 44450049	RP-2086-022	N/A	MR 1027570
Pzr Htr 1MRCEA03	APN 44450049	RP-2086-003	N/A	MR 1027570
Pzr Htr 1MRCEA04	APN 44450049	RP-2086-007	N/A	MR 1027570
Pzr Htr 1MRCEA05	APN 44450049	RP-2086-029	N/A	MR 1027570
Pzr Htr 1MRCEA06	APN 44450049	RP-2086-026	N/A	MR 1027570
Pzr Htr 1MRCEA07	APN 44450049	RP-2086-038	N/A	MR 1027570
Pzr Htr 1MRCEA08	APN 44450049	RP-2086-025	N/A	MR 1027570

18. Planner [Signature] 10/18/05 Printed Name: Herbert L. Green
- Signature Date
19. ISI [Signature] 10/19/05 Printed Name: R. P. JINDAP Log Entry [Signature]
- Signature Date
20. ANII [Signature] 10-20-05 Printed Name: R-G. HOUSTON
- Signature Date

ASME SECTION XI - REPAIR / REPLACEMENT

Page 3 of 3

Component Continuation:

Work Order Number: 2614240

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
PZR HTR 1MRCEA09	APN 44450049	RP-2086-014	N/A	MR 1027570
PZR HTR 1MRCEA10	APN 44450049	RP-2086-035	N/A	MR 1027570
PZR HTR 1MRCEA11	APN 44450049	RP-2086-015	N/A	MR 1027570
PZR HTR 1MRCEA12	APN 44450049	RP-2086-011	N/A	MR 1027570
PZR HTR 1MRCEA13	APN 44450049	RP-2086-008	N/A	MR 1027570
PZR HTR 1MRCEA14	APN 44450049	RP-2086-018	N/A	MR 1027570
PZR HTR 1MRCEA15	APN 44450049	RP-2086-032	N/A	MR 1027570
PZR HTR 1MRCEA16	APN 44450049	RP-2086-002	N/A	MR 1027570
PZR HTR 1MRCEA17	APN 44450049	RP-2086-016	N/A	MR 1027570
PZR HTR 1MRCEA18	APN 44450049	RP-2086-009	N/A	MR 1027570
PZR HTR 1MRCEB01	APN 44450049	RP-2086-037	N/A	MR 1027570
PZR HTR 1MRCEB02	APN 44450049	RP-2086-036	N/A	MR 1027570
PZR HTR 1MRCEB03	APN 44450049	RP-2086-005	N/A	MR 1027570
PZR HTR 1MRCEB04	APN 44450049	RP-2086-010	N/A	MR 1027570
PZR HTR 1MRCEB05	APN 44450049	RP-2086-023	N/A	MR 1027570
PZR HTR 1MRCEB06	APN 44450049	RP-2086-020	N/A	MR 1027570
PZR HTR 1MRCEB07	APN 44450049	RP-2086-039	N/A	MR 1027570
PZR HTR 1MRCEB08	APN 44450049	RP-2086-031	N/A	MR 1027570
PZR HTR 1MRCEB09	APN 44450049	RP-2086-030	N/A	MR 1027570
PZR HTR 1MRCEB10	APN 44450049	RP-2086-019	N/A	MR 1027570
PZR HTR 1MRCEB11	APN 44450049	RP-2086-034	N/A	MR 1027570
PZR HTR 1MRCEB12	APN 44450049	RP-2086-004	N/A	MR 1027570
PZR HTR 1MRCEB13	APN 44450049	RP-2086-006	N/A	MR 1027570
PZR HTR 1MRCEB14	APN 44450049	RP-2086-024	N/A	MR 1027570
PZR HTR 1MRCEB15	APN 44450049	RP-2086-021	N/A	MR 1027570
PZR HTR 1MRCEB16	APN 44450049	RP-2086-013	N/A	MR 1027570
PZR HTR 1MRCEB17	APN 44450049	RP-2086-028	N/A	MR 1027570
PZR HTR 1MRCEB18	APN 44450049	RP-2086-012	N/A	MR 1027570


18. Planner


Signature

10/18/05
Date

Printed Name: Herbert L. Green

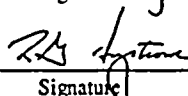
19. ISI


Signature

10/19/05
Date

Printed Name: R.P. INJAP Log Entry RPZ

20. ANII


Signature

10-20-05
Date

Printed Name: R.G. HOUSTON

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/12/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 5

2. Plant: Palo Verde Nuclear Westinghouse generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2614240

3. Work Performed by: Welding Services Incorporated

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Reactor Coolant System (RC), ASME Section III, Class 1

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1971 Edition, Winter 1973 Addenda, Code Case 1361-2

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
PZR Temper Bead Pad (36 locations)	APS	N/A	N/A	1MRCEX02	2005	Repaired	NO
PZR Heater Sleeve Nozzles (36 locations)	APS	N/A	N/A	1MRCEX02	2005	Repaired	NO

7. Description of Work: Install a Temper Bead Weld Pads, Inconel 690 nozzles and remove & reinstall 36 Pressurizer Heaters at Pressurizer Nozzle/Heater locations 1MRCEA01 thru A18 and B01 thru B18. Reference DMWO 2513813 for design and heater replacement requirements.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐

N-416-2 ☒

Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/12/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 2 of 5

2. Plant: Palo Verde Nuclear Westinghouse generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2614240

3. Work Performed by: Welding Services Incorporated

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Reactor Coolant System (RC), ASME Section III, Class 1

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1971 Edition, Winter 1973 Addenda, Code Case 1361-2

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Pressurizer Heater	Westinghouse	<u>RP-2086-027</u>	N/A	1MRCEA01	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-022</u>	N/A	1MRCEA02	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-003</u>	N/A	1MRCEA03	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-007</u>	N/A	1MRCEA04	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-029</u>	N/A	1MRCEA05	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-026</u>	N/A	1MRCEA06	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-038</u>	N/A	1MRCEA07	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-025</u>	N/A	1MRCEA08	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-014</u>	N/A	1MRCEA09	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-035</u>	N/A	1MRCEA10	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-015</u>	N/A	1MRCEA11	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-011</u>	N/A	1MRCEA12	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-008</u>	N/A	1MRCEA13	2005	Replacement	YES

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al. Date: 10/12/2005
P. O. Box 53999, Phoenix Arizona 85072-2034 Sheet: 3 of 5
2. Plant: Palo Verde Nuclear Westinghouse generating Station Unit: 1
5801 South Wintersburg Road., Tonopah, Arizona 85354-7529 Work Order Number 2614240
3. Work Performed by: Welding Services Incorporated Type of Code Stamp None
 Authorization No. N/A
 Expiration Date N/A
4. Identification of System: Reactor Coolant System (RC), ASME Section III, Class 1
5. (a) Applicable Construction Code ASME Section III NB, Class 1 1971 Edition, Winter 1973 Addenda, Code Case 1361-2
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda
6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Pressurizer Heater	Westinghouse	<u>RP-2086-018</u>	N/A	1MRCEA14	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-032</u>	N/A	1MRCEA15	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-002</u>	N/A	1MRCEA16	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-016</u>	N/A	1MRCEA17	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-009</u>	N/A	1MRCEA18	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-037</u>	N/A	1MRCEB01	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-036</u>	N/A	1MRCEB02	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-005</u>	N/A	1MRCEB03	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-010</u>	N/A	1MRCEB04	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-023</u>	N/A	1MRCEB05	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-020</u>	N/A	1MRCEB06	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-039</u>	N/A	1MRCEB07	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-031</u>	N/A	1MRCEB08	2005	Replacement	YES

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/12/2005

/P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 4 of 5

2. Plant: Palo Verde Nuclear Westinghouse generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2614240

3. Work Performed by: Welding Services Incorporated

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Reactor Coolant System (RC), ASME Section III, Class 1

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1971 Edition, Winter 1973 Addenda, Code Case 1361-2

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Pressurizer Heater	Westinghouse	<u>RP-2086-030</u>	N/A	1MRCEB09	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-019</u>	N/A	1MRCEB10	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-034</u>	N/A	1MRCEB11	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-004</u>	N/A	1MRCEB12	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-006</u>	N/A	1MRCEB13	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-024</u>	N/A	1MRCEB14	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-021</u>	N/A	1MRCEB15	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-013</u>	N/A	1MRCEB16	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-028</u>	N/A	1MRCEB17	2005	Replacement	YES
Pressurizer Heater	Westinghouse	<u>RP-2086-012</u>	N/A	1MRCEB18	2005	Replacement	YES

FORM NIS-2 (Back)

Sheet 5 of 5

9. Remarks: Install a Temper Bead Weld Pads, Inconel 690 nozzles and remove & reinstall 36 Pressurizer Heaters at Pressurizer Nozzle/Heater locations 1MRCEA01 thru A18 and B01 thru B18. Reference DMWO 2513813 for design and heater replacement requirements. All work to be performed using WSI Travelers implemented by DIWO 2614240, and ISI Relief Requests number 23 and 30.

Pre-Pressured Test WO Review – ISI Alan Monow 12/2/05

ANII RS Lipton 12-6-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-20-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS Lipton Commissions: A2 Z64 "A.N.I.C."
Inspectors Signature National Board, State, Province, and Endorsements

Date: 12-20-05

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

As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

Pg. 1 of 2

1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 30 Curry Road Canonsburg, Pennsylvania, 15137
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Co. LLC 1000 Westinghouse Drive New Stanton PA 15672
(name and address of purchaser)
3. Location of installation Arizona Public Service 5801 South Wintersburg Road Tonopah, Arizona 85354
(name and address)
4. Type WDC-3580-1530 Rev. 3 Tubing: SA-213 TP 316/316L 81,000 Psi N/A 2005
(drawing number) (mat'l. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1971 Edition Winter 1973 Add. I N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Heater Assembly comprised of tubing welded to an end plug
Manufactured on Ionics Contract 1530
Supplied on Westinghouse P.O. # 4500162185
**180" min Wall (Tubing)
8. Nom. Thickness (in.) 0.500" +/- 0.005" End Plug in. design thickness (in.) Same ** Dia. OD (ft & in.) 0' 1.252" Length overall (ft & in.) 8' 0.625" Min.
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order	Part or Appurtenance Serial Number	National Board No. In Numerical Order
(1) RP-2086-02	---	(26)	
(2) RP-2086-03	---	(27)	
(3) RP-2086-04	---	(28)	
(4) RP-2086-05	---	(29)	
(5) RP-2086-06	---	(30)	
(6) RP-2086-07	---	(31)	
(7) RP-2086-08	---	(32)	
(8) RP-2086-09	---	(33)	
(9) RP-2086-10	---	(34)	
(10) RP-2086-11	---	(35)	
(11) RP-2086-12	---	(36)	
(12) RP-2086-13	---	(37)	
(13) RP-2086-14	---	(38)	
(14) RP-2086-15	---	(39)	
(15) RP-2086-16	---	(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 2500 psi. Temp. 800 °F. Hydro. Test pressure 3200 PSIG at temp. 78 °F
(when applicable)

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

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

FORM N-2 (Front - Pg 1 of 2)

CERTIFICATION OF DESIGN

Design specifications certified by KH Haslinger P.E. State Connecticut Reg. No. 10990
(when applicable)
Design report* certified by N/A P.E. State N/A Reg. No. N/A
(when applicable)

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-2974 Expires March 26, 2008
Date 10-20-05 Name Ionics, Incorporated - Bridgeville Division Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by One Beacon America Insurance Co.
of Boston, Mass. have inspected these items described in this Data Report on 10-20-2005, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

10-20-2005 Signed [Signature] Commissions PA-2666
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

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

As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

Pg. 1 of 2

- Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 30 Curry Road Canonsburg, Pennsylvania, 15137
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Co. LLC 1000 Westinghouse Drive New Stanton PA 15672
(name and address of purchaser)
3. Location of Installation Arizona Public Service 5801 South Wintersburg Road Tonopah, Arizona 85354
(name and address)
4. Type WDC-3580-1530 Rev. 3 Tubing: SA-213 TP 316/316L 81,000 Psi N/A 2005
(drawing number) End Plug: SA-479 TP 316/316L 81,400 Psi (CRN) (year built)
(mat'l. spec no.) (tensile strength)
5. ASME Code, Section III, Division 1: 1971 Edition. Winter 1973 Add. 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Heater Assembly comprised of tubing welded to an end plug
Manufactured on Ionics Contract 1530
Supplied on Westinghouse P.O. # 4500162185
**180" min Wall (Tubing)
8. Nom. Thickness (in.) 0.500" +/- 0.005" End Plug In. design thickness (in.) Same ** Dia. OD (ft & in.) 0' 1.252" Length overall (ft & in.) 8' 0.625" Min.
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) RP-2086-18	---
(2) RP-2086-19	---
(3) RP-2086-20	---
(4) RP-2086-21	---
(5) RP-2086-22	---
(6) RP-2086-23	---
(7) RP-2086-24	---
(8) RP-2086-25	---
(9) RP-2086-26	---
(10) RP-2086-27	---
(11) RP-2086-28	---
(12) RP-2086-29	---
(13) RP-2086-30	---
(14) RP-2086-31	---
(15) RP-2086-32	---
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
(37)	
(38)	
(39)	
(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2500 psi. Temp. 800 °F. Hydro. Test pressure 3200 PSIG at temp. 78 °F
(when applicable)

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

7/98

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

FORM N-2 (Front - Pg 1 of 2)

CERTIFICATION OF DESIGN

sign specifications certified by KH Haslinger P.E. State Connecticut Reg. No. 10990
(when applicable)
Design report* certified by N/A P.E. State N/A Reg. No. N/A
(when applicable)

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-2974 Expires March 26, 2008
Date 10-20-05 Name Ionics, Incorporated - Bridgeville Division Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by One Beacon America Insurance Co.
of Boston, Mass. have inspected these items described in this Data Report on 10-20-2005, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

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

10-20-2005 Signed [Signature] Commissions PA-2646
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

NUCLEAR PARTS AND APPURTENANCES*

As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

Pg. 1 of 2

Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 30 Curry Road Canonsburg, Pennsylvania, 15137

(name and address of NPT Certificate Holder)

2. Manufactured for Westinghouse Electric Co. LLC 1000 Westinghouse Drive New Stanton PA 15672

(name and address of purchaser)

3. Location of installation Arizona Public Service 5801 South Wintersburg Road Tonopah, Arizona 85354

(name and address)

4. Type WDC-3580-1530 Rev. 3 Tubing: SA-213 TP 316/316L 81,000 Psi
(drawing number) End Plug: SA-479 TP 316/316L 81,400 PsiN/A
(CRN)2005
(year built)5. ASME Code, Section III, Division 1: 1971 Edition

(edition)

Winter 1973 Add.

(addenda date)

I

(class)

N/A

(Code case no.)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A

(no.)

7. Remarks Heater Assembly comprised of tubing welded to an end plugManufactured on Ionics Contract 1530Supplied on Westinghouse P.O. # 4500162185**180" min Wall (Tubing)8. Nom. Thickness (in.) 0.500" +/- 0.005" End Plug in. design thickness (in.) Same ** Dia. OD (ft & in.) 0' 1.252" Length overall (ft & in.) 8' 0.625" Min.

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

Part or Appurtenance Serial Number	National Board No. In Numerical order	Part or Appurtenance Serial Number	National Board No. In Numerical Order
(1) RP-2086-34	---	(26)	
(2) RP-2086-35	---	(27)	
(3) RP-2086-36	---	(28)	
(4) RP-2086-37	---	(29)	
(5) RP-2086-38	---	(30)	
(6) RP-2086-39	---	(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 2500 psi. Temp. 800 °F. Hydro. Test pressure 3200 PSIG at temp. 78° F
(when applicable)

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

(7/98)

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

FORM N-2 (Front - Pg 1 of 2)

CERTIFICATION OF DESIGN

Design specifications certified by KH Haslinger P.E. State Connecticut Reg. No. 10990
(when applicable)
Design report* certified by N/A P.E. State N/A Reg. No. N/A
(when applicable)

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-2974 Expires March 26, 2008
Date 10-20-05 Name Ionics, Incorporated - Bridgeville Division Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province
of Pennsylvania and employed by One Beacon America Insurance Co.
of Boston, Mass. have inspected these items described in this Data Report on 10-20-2005, and state that to the
best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section
III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described
in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage
or loss of any kind arising from or connected with this inspection.

10-20-2005 Signed [Signature] Commissions PA-2646
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01A
2. Item Description: SG#1 – Reactor Cooling Lines, 1-RC-030-31", 1-RC-032-42", 1-RC-033-31"
3. N-5 Data Package Number: 1RC01-1A
4. W.O. Number: DIWO 2664037
5. Original Construction Code Edition: 1971 Edition, Winter 1973 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: WP&IR P-RCS-436: EQID's 1PRCEL030, 1PRCEL032, 1PRCEL033 Installation of Replacement Steam Generator #1 and the new cold leg elbow assemblies to the existing RCS pipe ends, including pipe end preparation and welding.

8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
Report Number: N/A

9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:

DMWO 2541281

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 1, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DBH Date 9-7-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DSP Date 9-7-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 9-7-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 9-7-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1MRCEE01A	APN DDD28156	224	N/A	MRR 02565
1PRCEL032 (RV)	N/A	N/A	N/A	N/A
1PRCEL033 (RCP-1A)	NA	229	NA	MRR 02554
1PRCEL030 (RCP-1B)	NA	231	NA	MRR 02554

18. Planner Dale S. Preslar 9-7-05 Printed Name: Dale S. Preslar
Signature Date

19. ISI D.B. Hansen 9-7-05 Printed Name: D.B. Hansen Log Entry DBH
Signature Date

20. ANII R.G. Hogstrom 9-7-05 Printed Name: R.G. Hogstrom
Signature Date

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/09/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2664037
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System RC (RSG 1)

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W75 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	173	1MRCEE01A	05	Replacement	Yes
Piping	Ansaldo	229	178	1PRCEL032	05	Replacement	Yes
Piping	Ansaldo	231	180	1PRCEL033	05	Replacement	Yes

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒
 Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks The scope of work included installing the replacement steam generator (1MRCEE01A) and cold leg elbow assemblies (refer DIWO 2665160 for the welds from the RSG to the cold leg elbow assemblies). Implementation of NCR-062 to remove a PT indication from the clad on Weld 1RCS5 was also completed. This work was performed per DIWO 2664037.
DMWO 2541281
WP&IR P-RCS-436

Pre-Pressure Test Review: ISI DBH 12-9-05 ANII [Signature] 12-9-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH 12-20-05 ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-7-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 NB 9685 "A.N.I.C." Az 264
Inspector's Signature National Board, State, Province, and Endorsements
Date 12-20-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01B
- 2.. Item Description: SG#2 – Reactor Cooling Lines, 1-RC-073-31", 1-RC-063-42", 1-RC-084-31"
3. N-5 Data Package Number: 1RC01-1B 4. W.O. Number: DIWO 2664037
5. Original Construction Code Edition: 1971 Edition, Winter 1973 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: WP&IR# P-RCS-437: EQID's 1PRCEL073, 1PRCEL063, 1PRCEL084 Installation of Replacement Steam Generator #2 and the new cold leg elbow assemblies to the existing RCS pipe ends, including pipe end preparation and welding.

8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
Report Number: N/A

9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541281

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DSP Date 9-7-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DSP Date 9-7-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 9-7-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 9-7-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1MRCEE01B	APN 00088156	225	N/A	MRR 02565
1PRCEL073 (RCP-1C)	NA	228	NA	MRR 02554
1PRCEL063 (RV)	N A	N A	N A	
1PRCEL084 (RCP-1D)	NA	230	NA	MRR 02554

18. Planner Dale S. Preslar 9-7-05 Printed Name: Dale S. Preslar
Signature Date

19. ISI D. Brittanen 9-7-05 Printed Name: D. Brittanen Log Entry DBH
Signature Date

20. ANII R.G. Hoagstrom 9-7-05 Printed Name: R.G. Hoagstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/09/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address
2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2664037
Address Work Order Number
3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Authorization No. N/A
Address Expiration Date N/A
4. Identification of System RC (RSG 2)
5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W75 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda
6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	225	174	1MRCEE01B	05	Replacement	Yes
Piping	Ansaldo	228	177	1PRCEL073	05	Replacement	Yes
Piping	Ansaldo	230	179	1PRCEL084	05	Replacement	Yes

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒
 Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks The scope of work included installing the replacement steam generator (1MRCEE01B) and cold leg elbow assemblies (refer DIWO 2665160 for the welds from the RSG to the cold leg elbow assemblies). Implementation of NCR-059 to remove a PT indication from the clad on Weld 2RCS1 was also completed. This work was performed per DIWO 2664037.
DMWO 2541281
WP&IR P-RCS-437

Pre-Pressure Test Review: ISI

DBH 12-9-05

ANII

William E. Allen 12-9-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH - ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 1-7-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

PK [Signature]
Inspector's Signature

Commissions NB 9685 "A.N.I.C" Az 264
National Board, State, Province, and Endorsements

Date 12-20-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page / of /

1. Component ID 1MRCE01A
2. Item Description: Steam Generator #1
3. N-5 Data Package Number: 1RC01-1A
4. W.O. Number: 2665160
5. Original Construction Code Edition: 1971 Edition, Winter 1973 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Perform a buffing process to remove the machine scratch on the nozzle transition area, per NCR# 25030-022.
8. ☐ ISI Flaw N/A
- NDE Method of Flaw Detection: N/A
- Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541319

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DBI Date 9-26-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES DOB ☒ NO 9-26-05

Initial DBA Date 9-26-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DBA Date 9-26-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DBA Date 9-26-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Recirculation Nozzle	Nozzle #24	SG, S/N 224	NA	NA

18. Planner Dale S. Preslar 9-26-05 Printed Name: Dale S. Preslar
Signature Date

19. ISI DOB 9-26-05 Printed Name: O.D. Hansen Log Entry 9-28-05
Signature Date

20. ANII R.G. Hogstrom 9-26-05 Printed Name: R.G. Hogstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 09/28/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665160
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name

Authorization No. N/A

Expiration Date N/A

Address

4. Identification of System SG

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	173	1MRCEE01A	05	Repaired	Yes

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks During machining of the 4" Recirculation Nozzle end prep the base of the rotating machine
contacted and gouged the outer diameter of the nozzle. This REWORK was performed to remove
the gouge by lightly buffing the area. The work was documented and performed per Bechtel NCR
25030-022 (DIWO 2665160 and WP&IR P-SG1-SEC).

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DAN- Date 9-28-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 ARIZONA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-21-2005 to 9-21-2005, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RD [Signature] Commissions NB 9685 "A, S, I, C" Az 264
Inspector's Signature National Board, State, Province, and Endorsements

Date 9-28-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 2

1. Component ID 1MRCE01A
- 2.. Item Description: Steam Generator No. 1
3. N-5 Data Package Number: 1RC01-1A 4. W.O. Number: DIWO 2665160
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Per DMWO 2541319 / WP&IR P-SG1-SEC prepare Steam Generator No. 1 for installation by removing hydro caps, machining weld preps.
8. ☐ ISI Flaw NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541319

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III C1 1, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III C1 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DAH Date 8-31-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial DEA Date 8-31-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DEA Date 8-31-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DEA Date 8-31-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1MRCEE01A	Nat'l Bd. No. 173	224	N/A	<u>MRR 02559</u>

18. Planner Dale E. Preslar 8-31-05 Printed Name: Dale E. Preslar
Signature Date

19. ISI D.B. 21- 8-31-05 Printed Name: D. D. Hansen Log Entry 2011
Signature Date

20. ANII R.G. Hogstrom 8-31-05 Printed Name: R.G. Hogstrom
Signature Date

ASME SECTION XI - REPAIR / REPLACEMENT

1013-4
Page 2 of 2

1. Component ID 1MRCE01A
2. Item Description: Steam Generator No. 1
3. N-5 Data Package Number: 1RC01-1A 4. W.O. Number: DIWO 2665160
5. Original Construction Code Edition: 1971 Edition, Winter 1973 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Per DMWO 2541319 / WP&IR# P-SG1-SEC, installation of the Cold Leg Key Lug for Steam Generator #1
8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541319

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec.III Cl 1, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DBH Date 10-11-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ^{DOIT} ☒ NO

Initial DBH Date 9-15-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DBH Date 9-15-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DBH Date 9-15-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Cold Leg Key Lug	452	222 ^{DOIT} <u>11-21-05</u>		
	# 71	# 220	<u>2-2342</u>	<u>MRR 02611</u>
	# 52	222		
	# 71	<u>220</u>		

18. Planner Dale S. Preslar 9/15/05 Printed Name: Dale S. Preslar
Signature Date

19. ISI DBH 10-11-05 Printed Name: DBHAWEN Log Entry DOIT
Signature Date

20. ANII RD Klein 10-11-05 Printed Name: RD Klein
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/29/05
NameP.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address2. Plant Palo Verde Nuclear Generating Station Unit 1
Name5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665160
Address Work Order Number3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
NameAuthorization No. N/A5801 S. Wintersburg Rd., Tonopah, AZ 85354 Expiration Date N/A
Address4. Identification of System SG #15. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Cold Leg Key Lug	Ansaldo	220	169	#71	2005	Replacement	Yes
Steam Generator	Ansaldo	224	173	1MRCEE01A	2005	Replacement	Yes

7. Description of Work See remarks on sheet 28. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Work scope includes: install the cold leg key lug (SN 220) to the 1MRCEE01A (RSG #1) and
machine secondary nozzle end preparations per DIWO 2665160
DMWO 2541319
WP&IR P. - SG1 - SEC

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DAZ/- ENG Date 11-29-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 8-31-05 to 11-29-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RA Signature Commissions NB 9685 "A, B, C" Az 264
Inspector's Signature National Board, State, Province, and Endorsements
Date 11-29-05

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

Pg. 1 of 2

1. Manufactured and certified by ANSALDO CAMOZZI Energy Special Component S.p.A. - Viale Sarca 336 - 20126 Milano - ITALY
(name and address of NPT Certificate Holder)

2. Manufactured for ARIZONA PUBLIC SERVICE - 5801 S. Wintersburg Rd - Tonopah - AZ 85354-7529 - USA
(name and address of purchaser)

3. Location of Installation Palo Verde Nuclear Generating Station UNIT 1 - AZ - USA
(name and address)

4. Type PX-DWD-00-067 Rev. 4 SA-508 Cl 3 80 Ksi N/A 2005
(drawing no.) (mat'l spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code, Section III, Division 1: 1989 N/A 1 N/A
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: Key Bracket Item 71 - Serial # 220 (S.G. 1) and 221 (S.G. 2) // Key Bracket Item 52 - Serial # 222 (S.G. 1) and 223 (S.G. 2)

8. Nom. thickness (in.) 7.5 Min. design thickness (in.) 7.5 Dia. ID (ft & in.) N/A Length overall (ft & in.) 14.72'

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

Part or Appurtenance Serial Number	National Board No. in Numerical Order	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) <u>220</u>	<u>169</u>	(26) <u>N/A</u>	<u>N/A</u>
(2) <u>221</u>	<u>170</u>	(27) <u>N/A</u>	<u>N/A</u>
(3) <u>222</u>	<u>171</u>	(28) <u>N/A</u>	<u>N/A</u>
(4) <u>223</u>	<u>172</u>	(29) <u>N/A</u>	<u>N/A</u>
(5) <u>N/A</u>	<u>N/A</u>	(30) <u>N/A</u>	<u>N/A</u>
(6) <u>N/A</u>	<u>N/A</u>	(31) <u>N/A</u>	<u>N/A</u>
(7) <u>N/A</u>	<u>N/A</u>	(32) <u>N/A</u>	<u>N/A</u>
(8) <u>N/A</u>	<u>N/A</u>	(33) <u>N/A</u>	<u>N/A</u>
(9) <u>N/A</u>	<u>N/A</u>	(34) <u>N/A</u>	<u>N/A</u>
(10) <u>N/A</u>	<u>N/A</u>	(35) <u>N/A</u>	<u>N/A</u>
(11) <u>N/A</u>	<u>N/A</u>	(36) <u>N/A</u>	<u>N/A</u>
(12) <u>N/A</u>	<u>N/A</u>	(37) <u>N/A</u>	<u>N/A</u>
(13) <u>N/A</u>	<u>N/A</u>	(38) <u>N/A</u>	<u>N/A</u>
(14) <u>N/A</u>	<u>N/A</u>	(39) <u>N/A</u>	<u>N/A</u>
(15) <u>N/A</u>	<u>N/A</u>	(40) <u>N/A</u>	<u>N/A</u>
(16) <u>N/A</u>	<u>N/A</u>	(41) <u>N/A</u>	<u>N/A</u>
(17) <u>N/A</u>	<u>N/A</u>	(42) <u>N/A</u>	<u>N/A</u>
(18) <u>N/A</u>	<u>N/A</u>	(43) <u>N/A</u>	<u>N/A</u>
(19) <u>N/A</u>	<u>N/A</u>	(44) <u>N/A</u>	<u>N/A</u>
(20) <u>N/A</u>	<u>N/A</u>	(45) <u>N/A</u>	<u>N/A</u>
(21) <u>N/A</u>	<u>N/A</u>	(46) <u>N/A</u>	<u>N/A</u>
(22) <u>N/A</u>	<u>N/A</u>	(47) <u>N/A</u>	<u>N/A</u>
(23) <u>N/A</u>	<u>N/A</u>	(48) <u>N/A</u>	<u>N/A</u>
(24) <u>N/A</u>	<u>N/A</u>	(49) <u>N/A</u>	<u>N/A</u>
(25) <u>N/A</u>	<u>N/A</u>	(50) <u>N/A</u>	<u>N/A</u>

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

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

(7/86)

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

Certificate Holder's Serial Nos. 220 through 223

CERTIFICATION OF DESIGN

Design specifications certified by J.O. CALLE P.E. State VIRGINIA Reg. no. 024373
(when applicable)

Design report* certified by E.S. BROCKOWSKI P.E. State MARYLAND Reg. no. 12424
(when applicable)

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-2860-1 Expires March 5, 2007

Date 17/03/2005 Name ANSALDO CAMOZZI Energy Special Components S.p.A. Signed *Edoardo Camozzi*
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of New York and employed by Royal & SunAlliance Insurance of Manchester - UK have inspected these items described in this Data Report on 17 MARCH 2005, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the data shown above.

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

Date 17 MAR. 05 Signed *Hal* Commissions NB # 10151 A B N H S, NY # 4018
(Authorized Nuclear Inspector) (Nat'l Bd. (incl. endorsements) and state or prov. and no.)

Page 1 of 2

73DP-9ZZ17 Rev 9

ASME SECTION XI - REPAIR / REPLACEMENT

Page 2 of 2

1. Component ID 1MRCEE01A, 1PRCEL073, 1PRCEL084
- 2.. Item Description: Steam Generator No. 1
3. N-5 Data Package Number: 1RC01-1A
4. W.O. Number: DIWO 2665160
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Per DMWO 2541319 / WP&IR P-SG1-PRI prepare Steam Generator No. 1 for installation by removing hydro caps, machining weld preps and welding cold leg elbow assemblies to generator nozzles. Retest to be performed under DIWO 2665160
8. ☐ ISI Flaw NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541319

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DBH Date 8-31-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DBP Date 8-31-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DBP Date 8-31-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DBP Date 8-31-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1MRCEE01A	Nat'l. Bd. No. 173	224	N/A	MRE 02565
^{8/11/05} 1PRCEL073 030	NAT'L ED. No. 180	231	N/A	MRR 02554
^{8/11/05} 1PRCEL084 033	NAT'L BD. No. 178	229	N/A	MRR 02554

18. Planner Dabs. Pular 8-31-05 Printed Name: Dale S. Presler
Signature Date

19. ISI DBH 8-31-05 Printed Name: D. S. Hansen Log Entry DOT
Signature Date

20. ANII R.G. Hogstrom 8-31-05 Printed Name: R.G. Hogstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/06/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034
Address

Sheet 1 of 2

2. Plant Palo Verde Nuclear Generating Station
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529
Address

Unit 1

2665160
Work Order Number

3. Work Performed by Bechtel Construction
Name

Type Code Symbol Stamp None

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, Arizona 85354
Address

Expiration Date N/A

4. Identification of System RC

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, NO Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	173	1MRCEE01A	05	Replacement	Yes
Cold Leg SG1A	Ansaldo	229	178	101/1	05	Replacement	Yes
Cold Leg SG1B	Ansaldo	231	180	101/2	05	Replacement	Yes

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks The scope of work included removing the hydro-caps, machining nozzle preps, and installation by
welding of the cold leg elbow assemblies on RSG 1MRCEE01A. This work was performed per
DIWO 2665160.

DMWO 2541319

WP&IR P-SG1-PRI

Pre-Pressure Test Review: ISI DBH

ANII ROK

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules
of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT
of Hartford, Connecticut, have inspected the components described in this Owner's Report during
the period 8-31-05 to 12-20-05, and state that to the best of my knowledge and
belief, the Owner has performed examinations and taken corrective measures described in this Owner's
Report in accordance with the requirements of the ASME Code, Section XI.

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

RL Spitzer
Inspector's Signature

Commissions NB 9685 "A.N.I.C." Az 264
National Board, State, Province, and Endorsements

Date 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 2 of 2
 Date 10/12/05

1. Component ID 1MRCEE01B
- 2.. Item Description: Steam Generator No. 2
3. N-5 Data Package Number: 1RC02-1A
4. W.O. Number: DIWO 2665161
5. Original Construction Code Edition: 1971 Edition, Winter 1973 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Per DMWO 2541319 / WP&IR P-SG2-SEC, Installation of the Cold Leg Key Lug for Steam Generator #2
8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
 Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541319

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 1, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 1, 1974 Edition, Winter 1975 Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DDH Date 10-11-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☒ NO DDH 10-11-05

Initial DDP Date 9-15-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DDP Date 9-15-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DDP Date 9-15-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Cold Leg Key Lug	L/I 52	223	2-2342	02611 MRK

18. Planner Dale S. Preslar 9/15/05 Printed Name: Dale S. Preslar
 Signature Date

19. ISI D. Hansen 10-11-05 Printed Name: D. Hansen Log Entry DDH
 Signature Date

20. ANII Randy Klein 10-11-05 Printed Name: Randy Klein
 Signature Date

ASME SECTION XI - REPAIR / REPLACEMENT

Page

of

10/12/05
21

1. Component ID 1MRCEE01B
- 2.. Item Description: Steam Generator No. 2
3. N-5 Data Package Number: 1RC02-1A 4. W.O. Number: DIWO 2665161
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Per DMWO 2541319 / WP&IR P-SG2-SEC prepare Steam Generator No. 2 for installation by removing hydro caps, machining.
8. ☐ ISI Flaw NDE Method of Flaw Detection: N/A
J/A Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541319

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DBH Date 8-31-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial ASP Date 8-31-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial ASP Date 8-31-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial ASP Date 8-31-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1MRCEE01B	Nat'l. Bd. No. 174	225	N/A	<u>MRK 01943</u>

18. Planner [Signature] 8-31-05 Printed Name: Dale S. Preslar
 Signature Date

19. ISI [Signature] 8-31-05 Printed Name: D. B. Hansen Log Entry DBH
 Signature Date

20. ANII [Signature] 8-31-05 Printed Name: R. G. Hogstrom
 Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/29/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665161
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, AZ 85354 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System SG #25. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Cold Leg Key Lug	Ansaldo	223	172	#52	2005	Replacement	Yes
Steam Generator	Ansaldo	225	174	1MRCEE01B	2005	Replacement	Yes

7. Description of Work See remarks on sheet 28. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Work scope includes: install the cold leg key lug (SN 223) to the 1MRCEE01B (RSG #2) and
machine secondary nozzle end preparations per DIWO 2665161

DMWO 2541319

WP&IR P - SG2 - SEC

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DNZL- ENGR Date 11-29-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 8-31-05 to 11-29-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL Longene
Inspector's Signature

Commissions NB 2685 "A.N.I.C" Az 264
National Board, State, Province, and Endorsements

Date 11-29-05

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

Pg. 1 of 2

1. Manufactured and certified by ANSALDO CAMOZZI Energy Special Component S.p.A. - Viale Sarca 338 - 20126 Milano - ITALY
(name and address of NPT Certificate Holder)

2. Manufactured for ARIZONA PUBLIC SERVICE - 5801 S. Wintersburg Rd - Tonopah - AZ 85354-7528 - USA
(name and address of purchaser)

3. Location of Installation Palo Verde Nuclear Generating Station UNIT 1 - AZ - USA
(name and address)

4. Type PX-DWD-00-067 Rev. 4 SA-508 Cl 3 80 Ksi N/A 2005
(drawing no.) (part spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code, Section III, Division 1: 1989 N/A 1 N/A
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: Key Bracket Item 71 - Serial # 220 (S.G. 1) and 221 (S.G. 2) // Key Bracket Item 52 - Serial # 222 (S.G. 1) and 223 (S.G. 2)

8. Nom. thickness (in.) 7.5 Min. design thickness (in.) 7.5 Dia. ID (ft & in.) N/A Length overall (ft & in.) 14.72

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

Part or Appurtenance Serial Number	National Board No. in Numerical Order	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) <u>220</u>	<u>169</u>	(26) <u>N/A</u>	<u>N/A</u>
(2) <u>221</u>	<u>170</u>	(27) <u>N/A</u>	<u>N/A</u>
(3) <u>222</u>	<u>171</u>	(28) <u>N/A</u>	<u>N/A</u>
(4) <u>223</u>	<u>172</u>	(29) <u>N/A</u>	<u>N/A</u>
(5) <u>N/A</u>	<u>N/A</u>	(30) <u>N/A</u>	<u>N/A</u>
(6) <u>N/A</u>	<u>N/A</u>	(31) <u>N/A</u>	<u>N/A</u>
(7) <u>N/A</u>	<u>N/A</u>	(32) <u>N/A</u>	<u>N/A</u>
(8) <u>N/A</u>	<u>N/A</u>	(33) <u>N/A</u>	<u>N/A</u>
(9) <u>N/A</u>	<u>N/A</u>	(34) <u>N/A</u>	<u>N/A</u>
(10) <u>N/A</u>	<u>N/A</u>	(35) <u>N/A</u>	<u>N/A</u>
(11) <u>N/A</u>	<u>N/A</u>	(36) <u>N/A</u>	<u>N/A</u>
(12) <u>N/A</u>	<u>N/A</u>	(37) <u>N/A</u>	<u>N/A</u>
(13) <u>N/A</u>	<u>N/A</u>	(38) <u>N/A</u>	<u>N/A</u>
(14) <u>N/A</u>	<u>N/A</u>	(39) <u>N/A</u>	<u>N/A</u>
(15) <u>N/A</u>	<u>N/A</u>	(40) <u>N/A</u>	<u>N/A</u>
(16) <u>N/A</u>	<u>N/A</u>	(41) <u>N/A</u>	<u>N/A</u>
(17) <u>N/A</u>	<u>N/A</u>	(42) <u>N/A</u>	<u>N/A</u>
(18) <u>N/A</u>	<u>N/A</u>	(43) <u>N/A</u>	<u>N/A</u>
(19) <u>N/A</u>	<u>N/A</u>	(44) <u>N/A</u>	<u>N/A</u>
(20) <u>N/A</u>	<u>N/A</u>	(45) <u>N/A</u>	<u>N/A</u>
(21) <u>N/A</u>	<u>N/A</u>	(46) <u>N/A</u>	<u>N/A</u>
(22) <u>N/A</u>	<u>N/A</u>	(47) <u>N/A</u>	<u>N/A</u>
(23) <u>N/A</u>	<u>N/A</u>	(48) <u>N/A</u>	<u>N/A</u>
(24) <u>N/A</u>	<u>N/A</u>	(49) <u>N/A</u>	<u>N/A</u>
(25) <u>N/A</u>	<u>N/A</u>	(50) <u>N/A</u>	<u>N/A</u>

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

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

(7/82)

This form (E90040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

Certificate Holder's Serial Nos. 220 through 223

CERTIFICATION OF DESIGN

Design specifications certified by J.O. CALLE P.E. State VIRGINIA Reg. no. 024373
(when applicable)

Design report* certified by E.S. BROCKOWSKI P.E. State MARYLAND Reg. no. 12424
(when applicable)

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-2860-1 Expires March 5, 2007

Date 17/03/2005 Name ANSALDO CAMOZZI Energy Special Components S.p.A. Signed *Edoardo Hsu*
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of New York and employed by Royal & SunAlliance Insurance
 of Manchester - UK have inspected these items described in this Data Report on 17 MARCH 2005, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

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

Date 17 MAR. '05 Signed *Neil* Commissions NB # 10151 A B N N S, NY # 4018
(Authorized Nuclear Inspector) (Nat'l Bd. (incl. endorsements) and state or prov. and no.)

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 2

1. Component ID 1MRCEE01B
- 2.. Item Description: Steam Generator No. 2
3. N-5 Data Package Number: 1RC01-1A 4. W.O. Number: DIWO 2665161
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Per DMWO 2541319 / WP&IR P-SG2-PRI prepare Steam Generator No. 2 for installation by welding the Hot Leg cladding to within 1/4" of the carbon steel weld. Restest to be performed under DIWO 2665161.
8. ☐ ISI Flaw NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541319

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III C1 1, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III C1 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☒ YES ☒ NO
Initial DBH Date 8-31-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO
Initial DBH Date 8-31-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DBH Date 8-31-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DBH Date 8-31-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1MRCEE01B	Nat'l. Bd. No. 174	225	N/A	MRR 02565
Welding was not performed.				
			DBH -	
			11-8-05	

18. Planner Dale S. Preslar 8-31-05 Printed Name: Dale S. Preslar
Signature Date

19. ISI DBH 8-31-05 Printed Name: D.B. Hansen Log Entry DBH
Signature Date

20. ANII R.G. Houston 8-31-05 Printed Name: R.G. Houston
Signature Date

ASME SECTION XI - REPAIR / REPLACEMENT

Page 2 of 2

1. Component ID 1MRCEE01B, 1PRCEL073, 1PRCEL084
- 2.. Item Description: Steam Generator No. 2
3. N-5 Data Package Number: 1RC01-1A 4. W.O. Number: DIWO 2665161
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Per DMWO 2541319 /WP&IR P-SG2-PRI prepare Steam Generator No. 2 for installation by removing hydro caps, machining weld preps and welding cold leg elbow assemblies to generator nozzles. Retest to be performed under DIWO 2665161.
8. ☐ ISI Flaw NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541319

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DBH Date 8-31-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DBP Date 8-31-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DBP Date 8-31-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DBP Date 8-31-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1MRCEE01B	Nat'l. Bd. No. 174	225	N/A	MRR 02565
1PRCEL073	NAT'L BD. No. 177	228	N/A	MRR 02554
1PRCEL084	NAT'L BD. NO. 179	230	N/A	MRR 02554

18. Planner Dale S. Priest 8-31-05 Printed Name: Dale S. Priest
Signature Date

19. ISI DBH 8-31-05 Printed Name: Dale Hansen Log Entry DBH
Signature Date

20. ANII RA Hoastrom 8-31-05 Printed Name: RA Hoastrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/06/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665161
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System RC

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, No Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	225	174	1MRCEE01B	05	Replacement	Yes
Cold Leg SG2A	Ansaldo	228	177	101/1	05	Replacement	Yes
Cold Leg SG2B	Ansaldo	230	179	101/2	05	Replacement	Yes

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks The scope of work included removing the hydro-caps, machining nozzle preps, and installation by welding of the cold leg elbow assemblies on RSG 1MRCEE01B. This work was performed per DIWO 2665161.

DMWO 2541319

WP&IR P-SG2-PRI

Pre-Pressure Test Review: ISI DBH

ANII RDK

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 8-31-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

R. J. Hyman Commissions NB 9685 "A.N.I.C." Az 264
Inspector's Signature National Board, State, Province, and Endorsements

Date 12-20-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01A
- 2.. Item Description: Steam Generator # 1
3. N-5 Data Package Number: 1RCOI-1A
4. W.O. Number: 2665167
5. Original Construction Code Edition: 1971 Edition, Winter 1973 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Weld the Key Lug to the Replacement Steam Generator # 1 in Accordance with WPIR M-LUG-308
8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: NA
Report Number: NA
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541284

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 1, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DBH Date 9-7-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial DBA Date 9-7-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DBA Date 9-7-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DBA Date 9-7-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
71		220 211-00322		MRP#02611

18. Planner Dale S. Preslar 9-7-05 Printed Name: Dale S. Preslar
Signature Date

19. ISI DBA 9-7-05 Printed Name: D.B. Hansen Log Entry DOIT
Signature Date

20. ANII R.G. Hogstrom 9-7-05 Printed Name: R.G. Hogstrom
Signature Date

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/26/05

P.O. Box 53999, Phoenix, Arizona 85072-2034
Address

Sheet 1 of 2

2. Plant Palo Verde Nuclear Generating Station

Unit 1

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529
Address

2665167
Work Order Number

3. Work Performed by Bechtel Construction
Name

Type Code Symbol Stamp None

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, AZ 85354
Address

Expiration Date N/A

4. Identification of System SG #1

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Hot Let Key Lug	Ansaldo	220	169	#71	2005	Replacement	Yes
Steam Generator	Ansaldo	224	173	1MRCEE01A	2005	Replacement	Yes

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install the hot leg key lug (SN 220) to the 1MRCEE01A (RSG #1) per DIWO 2665167.

DMWO 2541284

WP&IR M - LUG - 308

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH - ENGR Date 11-26-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az. 120-0A and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-7-05 to 11-26-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

25 [Signature] Commissions NB 9685 "A.S.I.C." Az 264
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-26-05

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

Pg. 1 of 2

1. Manufactured and certified by ANSALDO CAMOZZI Energy Special Component S.p.A. - Viale Sarca 336 - 20126 Milano - ITALY
(name and address of NPT Certificate Holder)

2. Manufactured for ARIZONA PUBLIC SERVICE - 5801 S. Wintersburg Rd - Tonopah - AZ 85354-7528 - USA
(name and address of purchaser)

3. Location of Installation Palo Verde Nuclear Generating Station UNIT 1 - AZ - USA
(name and address)

4. Type PX-DWD-00-067 Rev. 4 SA-508 Cl 3 80 Ksi N/A 2005
(drawing no.) (mfr's spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code, Section III, Division 1: 1989 N/A 1 N/A
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: Key Bracket Item 71 - Serial # 220 (S.G. 1) and 221 (S.G. 2) // Key Bracket Item 52 - Serial # 222 (S.G. 1) and 223 (S.G. 2)

8. Nom. thickness (in.) 7.5 Min. design thickness (in.) 7.5 Dia. ID (ft & in.) N/A Length overall (ft & in.) 14.72

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

Part or Appurtenance Serial Number	National Board No. In Numerical Order	Part or Appurtenance Serial Number	National Board No. In Numerical Order
(1) <u>220</u>	<u>169</u>	(26) <u>N/A</u>	<u>N/A</u>
(2) <u>221</u>	<u>170</u>	(27) <u>N/A</u>	<u>N/A</u>
(3) <u>222</u>	<u>171</u>	(28) <u>N/A</u>	<u>N/A</u>
(4) <u>223</u>	<u>172</u>	(29) <u>N/A</u>	<u>N/A</u>
(5) <u>N/A</u>	<u>N/A</u>	(30) <u>N/A</u>	<u>N/A</u>
(6) <u>N/A</u>	<u>N/A</u>	(31) <u>N/A</u>	<u>N/A</u>
(7) <u>N/A</u>	<u>N/A</u>	(32) <u>N/A</u>	<u>N/A</u>
(8) <u>N/A</u>	<u>N/A</u>	(33) <u>N/A</u>	<u>N/A</u>
(9) <u>N/A</u>	<u>N/A</u>	(34) <u>N/A</u>	<u>N/A</u>
(10) <u>N/A</u>	<u>N/A</u>	(35) <u>N/A</u>	<u>N/A</u>
(11) <u>N/A</u>	<u>N/A</u>	(36) <u>N/A</u>	<u>N/A</u>
(12) <u>N/A</u>	<u>N/A</u>	(37) <u>N/A</u>	<u>N/A</u>
(13) <u>N/A</u>	<u>N/A</u>	(38) <u>N/A</u>	<u>N/A</u>
(14) <u>N/A</u>	<u>N/A</u>	(39) <u>N/A</u>	<u>N/A</u>
(15) <u>N/A</u>	<u>N/A</u>	(40) <u>N/A</u>	<u>N/A</u>
(16) <u>N/A</u>	<u>N/A</u>	(41) <u>N/A</u>	<u>N/A</u>
(17) <u>N/A</u>	<u>N/A</u>	(42) <u>N/A</u>	<u>N/A</u>
(18) <u>N/A</u>	<u>N/A</u>	(43) <u>N/A</u>	<u>N/A</u>
(19) <u>N/A</u>	<u>N/A</u>	(44) <u>N/A</u>	<u>N/A</u>
(20) <u>N/A</u>	<u>N/A</u>	(45) <u>N/A</u>	<u>N/A</u>
(21) <u>N/A</u>	<u>N/A</u>	(46) <u>N/A</u>	<u>N/A</u>
(22) <u>N/A</u>	<u>N/A</u>	(47) <u>N/A</u>	<u>N/A</u>
(23) <u>N/A</u>	<u>N/A</u>	(48) <u>N/A</u>	<u>N/A</u>
(24) <u>N/A</u>	<u>N/A</u>	(49) <u>N/A</u>	<u>N/A</u>
(25) <u>N/A</u>	<u>N/A</u>	(50) <u>N/A</u>	<u>N/A</u>

10. Design pressure N/A psi. Temp. N/A °F. Hydro. test pressure N/A at temp. °F
(within applicable)

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

(7/98)

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

Certificate Holder's Serial Nos. 220 through 223

CERTIFICATION OF DESIGN

Design specifications certified by J.O. CALLE P.E. State VIRGINIA Reg. no. 024373
(when applicable)

Design report* certified by E.S. BROCKZKOWSKI P.E. State MARYLAND Reg. no. 12424
(when applicable)

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-2860-1 Expires March 5, 2007

Date 17/03/2005 Name ANSALDO CAMOZZI Energy Special Components S.p.A. Signed Gerardo J. J.
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province
 of New York and employed by Royal & Sun Alliance Insurance
 of Manchester - UK have inspected these items described in this Data Report on 17 MARCH 2005, and state that to the
 best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section
 III, Division 1. Each part listed has been authorized for stamping on the date shown above.

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

Date 17 MAR. 05 Signed [Signature] Commissions NB # 10151 A B N H S, NY # 4018
(Authorized Nuclear Inspector) (Nat'l Bd. (incl. endorsements) and state or prov. and no.)

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01B
2. Item Description: Steam Generator # 2
3. N-5 Data Package Number: 1RC01-1B
4. W.O. Number: 2665167
5. Original Construction Code Edition: 1971 Edition, Winter 1973 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda 2 DBA 11-25-05
7. Work Description: Weld the Key Lug to the Replacement Steam Generator #2 in Accordance with WPIR M-LUG-309
8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: NA
Report Number: NA
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541284

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DBH Date 9-7-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial DBA Date 9-7-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DBA Date 9-7-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DBA Date 9-7-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
<u>KEY LUG</u>	<u># 71</u>	<u>DBH NA 221</u>	<u>2-2342</u>	<u>MWR-02965</u>
<u>AIN 00091195</u>		<u>1F-2600</u>		

18. Planner Dale S. Preslar 9-7-05 Printed Name: Dale S. Preslar
Signature Date
19. ISI DBH 9-7-05 Printed Name: D.B. Hansen Log Entry DBH
Signature Date
20. ANII R.G. Hogstrom 9-7-05 Printed Name: R.G. Hogstrom
Signature Date

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/26/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665167
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, AZ 85354 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System SG #2

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Hot Let Key Lug	Ansaldo	221	170	#71	2005	Replacement	Yes
Steam Generator	Ansaldo	225	174	1MRCEE01B	2005	Replacement	Yes

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐
Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install the hot leg key lug (SN 221) to the 1MRCEE01B (RSG #2) per DIWO 2665167

DMWO 2541284

WP&IR M - LUG - 309

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed *[Signature]* *ENGR* Date 11-26-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-7-05 to 11-26-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 NB 9685 "A.S.I.C." Az 264
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-26-05

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

Pg. 1 of 2

1. Manufactured and certified by ANSALDO CAMOZZI Energy Special Component S.p.A. - Viale Serca 336 - 20126 Milano - ITALY
(name and address of NPT Certificate Holder)

2. Manufactured for ARIZONA PUBLIC SERVICE - 5801 S. Wintersburg Rd - Tonopah - AZ 85354-7529 - USA
(name and address of purchaser)

3. Location of installation Palo Verde Nuclear Generating Station UNIT 1 - AZ - USA
(name and address)

4. Type PX-DWD-00-067 Rev. 4 SA-508 Cl 3 80 Ksi N/A 2005
(drawing no.) (mtrl. spec. no.) (tensile strength) (CRM) (year built)

5. ASME Code, Section III, Division 1: 1989 N/A 1 N/A
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: Key Bracket Item 71 - Serial # 220 (S.G. 1) and 221 (S.G. 2) // Key Bracket Item 52 - Serial # 222 (S.G. 1) and 223 (S.G. 2)

8. Nom. thickness (in.) 7.5 Min. design thickness (in.) 7.5 Dis. ID (ft & in.) N/A Length overall (ft & in.) 14.72"

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

Part or Appurtenance Serial Number	National Board No. in Numerical Order	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) <u>220</u>	<u>169</u>	(26) <u>N/A</u>	<u>N/A</u>
(2) <u>221</u>	<u>170</u>	(27) <u>N/A</u>	<u>N/A</u>
(3) <u>222</u>	<u>171</u>	(28) <u>N/A</u>	<u>N/A</u>
(4) <u>223</u>	<u>172</u>	(29) <u>N/A</u>	<u>N/A</u>
(5) <u>N/A</u>	<u>N/A</u>	(30) <u>N/A</u>	<u>N/A</u>
(6) <u>N/A</u>	<u>N/A</u>	(31) <u>N/A</u>	<u>N/A</u>
(7) <u>N/A</u>	<u>N/A</u>	(32) <u>N/A</u>	<u>N/A</u>
(8) <u>N/A</u>	<u>N/A</u>	(33) <u>N/A</u>	<u>N/A</u>
(9) <u>N/A</u>	<u>N/A</u>	(34) <u>N/A</u>	<u>N/A</u>
(10) <u>N/A</u>	<u>N/A</u>	(35) <u>N/A</u>	<u>N/A</u>
(11) <u>N/A</u>	<u>N/A</u>	(36) <u>N/A</u>	<u>N/A</u>
(12) <u>N/A</u>	<u>N/A</u>	(37) <u>N/A</u>	<u>N/A</u>
(13) <u>N/A</u>	<u>N/A</u>	(38) <u>N/A</u>	<u>N/A</u>
(14) <u>N/A</u>	<u>N/A</u>	(39) <u>N/A</u>	<u>N/A</u>
(15) <u>N/A</u>	<u>N/A</u>	(40) <u>N/A</u>	<u>N/A</u>
(16) <u>N/A</u>	<u>N/A</u>	(41) <u>N/A</u>	<u>N/A</u>
(17) <u>N/A</u>	<u>N/A</u>	(42) <u>N/A</u>	<u>N/A</u>
(18) <u>N/A</u>	<u>N/A</u>	(43) <u>N/A</u>	<u>N/A</u>
(19) <u>N/A</u>	<u>N/A</u>	(44) <u>N/A</u>	<u>N/A</u>
(20) <u>N/A</u>	<u>N/A</u>	(45) <u>N/A</u>	<u>N/A</u>
(21) <u>N/A</u>	<u>N/A</u>	(46) <u>N/A</u>	<u>N/A</u>
(22) <u>N/A</u>	<u>N/A</u>	(47) <u>N/A</u>	<u>N/A</u>
(23) <u>N/A</u>	<u>N/A</u>	(48) <u>N/A</u>	<u>N/A</u>
(24) <u>N/A</u>	<u>N/A</u>	(49) <u>N/A</u>	<u>N/A</u>
(25) <u>N/A</u>	<u>N/A</u>	(50) <u>N/A</u>	<u>N/A</u>

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

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

(7/95)

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

FORM N-2 (Back — Pg 2 of 2)Certificate Holder's Serial Nos. 220 through 223

CERTIFICATION OF DESIGN

Design specifications certified by J.O. CALLE P.E. State VIRGINIA Reg. no. 024373
(when applicable)

Design report* certified by E.S. BROCKZKOWSKI P.E. State MARYLAND Reg. no. 12424
(when applicable)

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-2880-1 Expires March 5, 2007

Date 17/03/2005 Name ANSALDO CAMOZZI Energy Special Components S.p.A. Signed Edoardo Camozzi
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of New York and employed by Royal & SunAlliance Insurance
 of Manchester - UK have inspected these items described in this Data Report on 17 MARCH 2005, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the data shown above.

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

Date 17 MAR. '05 Signed Neil Commissions NB # 10153 A B N H S, NY # 4018
(Authorized Nuclear Inspector) [Not L. S. (incl. endorsements) and state or prov. and no.]

ASME SECTION XI - REPAIR / REPLACEMENT

Page of

1. Component ID 1MRCEE01A/B 00H 11-24-05
- 2.. Item Description: Steam Generator #2
3. N-5 Data Package Number: 1RC02-1A
4. W.O. Number: 2665177
5. Original Construction Code Edition: 1974 Edition, Winter 1974 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Reinstallation of the East/West Snubber Arms, PER WPIR# M-SG2-317.
8. ☐ ISI Flaw N/A
NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541284

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III NF, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III NF, 1974 Edition, Winter 1975 Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda 1989 NO 00H 11-24-05
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial 00H Date 10-12-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial DSP Date 9-15-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 9-15-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 9-15-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
East Snubber Arm	1MRCEE01S / EAST	<u>N/A</u>	<u>2-2342</u>	<u>MRP# 02559</u>
West Snubber Arm	1MRCEE01S / WEST	<u>N/A</u>	<u>2-2342</u>	<u>MRP# 02559</u>

18. Planner Dale S. Preslar 9/15/05 Printed Name: Dale S. Preslar
Signature Date

19. ISI D. S. Preslar 10-12-05 Printed Name: D. S. Preslar Log Entry Not
Signature Date

20. ANII RD Klein 10-12-05 Printed Name: RD KLEIN
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/23/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665177
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, AZ 85326 Expiration Date N/A
Address

4. Identification of System SG #2

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
East Snubber Arm	Ansaldo	APN 92076	NA	1MRCEE01S	NA	Replacement	No
West Snubber Arm	Ansaldo	APN 92076	NA	1MRCEE01S	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install the east and west snubber arms on RSG #2. The work was documented and performed per
DIWO 2665177, DMWO 2541284 and WP&IR M - SG2 - 317

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules
of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH ENGR Date 11-23-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT
of Hartford, Connecticut, have inspected the components described in this Owner's Report during
the period 9-21-2005 to 9-21-2005, and state that to the best of my knowledge and
belief, the Owner has performed examinations and taken corrective measures described in this Owner's
Report in accordance with the requirements of the ASME Code, Section XI.

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

William E. Weber Commissions VA 558 'R'
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-24-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page _____ of _____

1. Component ID 1MRCEE01A
- 2.. Item Description: Steam Generator #1
3. N-5 Data Package Number: 1RC01-1A
4. W.O. Number: DIWO 2665177
5. Original Construction Code Edition: 1971 Edition, Winter 1973 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Per DMWO 2541284 /WP&IR M-BP1-301, Disassembly/Reassembly of Steam Generator pedestal bolts and Sliding Base Z-Stop expansion plates. Permanent removal of Sliding Base X-Stop expansion plates.
8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541284

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: ASME III, 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: ASME III, 1974 Edition, Winter 1975 Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DBH Date 9-7-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required:
- ☐
- YES
- ☒
- NO

Initial DSP Date 9-7-05 If required, include a step in the W.O. for ISI & ANII Inspection.Initial DSP Date 9-7-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.Initial DSP Date 9-7-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Steam Generator #1, (40) Shirt Studs <u>DBH 11-2005</u>	2 1/2" Dia. 8 UNC-2B	N/A	M14599	PO# 25030-211- QAS-FB01-00006
<u>7 studs REPLACED</u>				
<u>4 NUTS REPLACED NA</u>		<u>NA</u>	<u>7485157</u>	<u>HWK 01945</u>

18. Planner Dale S. Preslar 9-7-05 Printed Name: Dale Preslar
Signature Date19. ISI DBH 9-7-05 Printed Name: D.B. Hansen Log Entry DBH
Signature Date20. ANII R.G. Hogstrom 9-7-05 Printed Name: R.G. Hogstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/28/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665177
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, AZ 85354 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System SG #1

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	173	1MRCEE01A	2005	Replacement	Yes
Skirt Studs	NA	NA	NA	Studs	NA	Replacement	No
Skirt Nuts	NA	NA	NA	Nuts	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐
 Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Replace steam generator sliding base plate studs and nuts on the 1MRCEE01A (RSG #1) per
DIWO 2665177

DMWO 2541284

WP&IR M - BP1 - 301

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed *ENGR* *ENGR* Date 11-28-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-7-05 to 11-28-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

William E. Hester
Inspector's Signature

Commissions VA 558 "B"
National Board, State, Province, and Endorsements

Date 11-28-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page of

1. Component ID 1MRCEE01B
- 2.. Item Description: Steam Generator #2
3. N-5 Data Package Number: 1RC01-1B
4. W.O. Number: DIWO 2665177
5. Original Construction Code Edition: 1971 Edition, Winter 1973 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Per DMWO 2541284 /WP&IR M-BP2-302, Disassembly/Reassembly of Steam Generator pedestal bolts and Sliding Base Z-Stop expansion plates. Permanent removal of Sliding Base X-Stop expansion plates.

8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
 Report Number: N/A

9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541284

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: ASME III , 1989 Edition, No Addenda
12. Repair/Replacement Activity Construction Code/Edition: ASME III , 1974 Edition, Winter 1975 Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DBH Date 9-7-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial DSP Date 9-7-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 9-7-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 9-7-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Steam Generator #2, (49) Shirt Studs <u>DBH 11-28-05</u>	2 1/4" Dia. 8 UNC-2B	N/a	M14599	PO# 25030-211- QAS-FBO1-00006
<u>23 STUDS REPLACED</u>				
<u>23 NUTS REPLACED NA</u>	<u>NA</u>	<u>NA</u>	<u>748 5154</u>	<u>MNR 01945</u>

18. Planner Dale S. Preslar 9-7-05 Printed Name: Dale Preslar
 Signature Date

19. ISI DBH 9-7-05 Printed Name: D.B. Hansen Log Entry DBH
 Signature Date

20. ANII R.G. Hogstrom 9-7-05 Printed Name: R.G. Hogstrom
 Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/28/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665177
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, AZ 85354 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System SG #2

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	225	174	1MRCEE01B	2005	Replacement	Yes
Skirt Studs	NA	NA	NA	Studs	NA	Replacement	No
Skirt Nuts	NA	NA	NA	Nuts	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Replace steam generator sliding base plate studs and nuts on the 1MRCEE01B (RSG #2) per
DIWO 2665177
- DMWO 2541284
- WP&IR M - BP1 - 302

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] ENGR Date 11-28-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-7-05 to 11-28-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 VA 558 "R"
National Board, State, Province, and Endorsements

Date 11-28-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PSGEL033, 1PSGEL036, 1SG033H017 ⁸⁰⁷⁴ 12-8-05
- 2.. Item Description: Steam Generator #1 Main Steam lines E-033-DLBB-28" & E-036-DLBB-28"
3. N-5 Data Package Number: 1SG01-1A 4. W.O. Number: DIWO 2665214
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: DMWO 2541285, WPIR P-MS1-423 Remove and reinstall a portion of the Main Steam lines to facilitate Steam Generator replacement. Add a spool piece in each line to compensate for the new height of the new Steam Generator. Adjust spring cans to new cold load setting on hanger 1SG033H017
8. ☐ ISI Flaw NA NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541285

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: ASME III CL 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: ASME III CL 2, 1974 Edition, Winter 1975 Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DBH Date 9-8-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DBP Date 9/8/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DBP Date 9/8/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DBP Date 9/8/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSGEL033	PIPE	N/A	806074	MRR 00946
1PSGEL036	PIPE	N/A	806074	MRR 00946
1SG033H017 N/A	WORK PERFORMED UNDER ANOTHER W.O.			
			⁸⁰⁷⁴ <u>12-8-05</u>	

18. Planner Dale S. Preslar 9/8/05 Printed Name: Dale S. Preslar
Signature Date

19. ISI DBH 9-8-05 Printed Name: HANSEN Log Entry DBH
Signature Date

20. ANII R.G. Houston 9-8-05 Printed Name: R.G. Houston
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/08/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665214
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, AZ 85354 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System SG #1

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	173	1MRCEE01A	2005	Replacement	Yes
Main Steam	NA	NA	NA	1PSGEL033	NA	Replacement	No
Main Steam	NA	NA	NA	1PSGEL036	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install Main Steam piping (1PSGEL 033 & 1PSGEL 036) to the replacement steam generator
(1MRCEE01B) This work was performed per DIWO 2665214
DMWO 2541285
WP&IR P - MS1 - 423

CORRECTED
Pre-Pressure Test Review: ISI

DBH 12-8-05 ANII

W. J. F. K. H. 12-8-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH - ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-8-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RB Lipton Commissions NS 9685 "A.N.I.C" Az 264
Inspector's Signature National Board, State, Province, and Endorsements

Date 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PSGEL042, 1PSGEL045, 1SG045H017 0011 12-8-05
- 2.. Item Description: Steam Generator #2 Main Steam lines E-042-DLBB-28" & E-045-DLBB-28"
3. N-5 Data Package Number: 1SG02-1A 4. W.O. Number: DIWO 2665217
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: DMWO 2541285, WPIR P-MS2-424 Remove and reinstall a portion of the Main Steam lines to facilitate Steam Generator replacement. Add a spool piece in each line to compensate for the new height of the new Steam Generator. Adjust spring cans to new cold load setting on hanger 1SG045H017
8. ☐ ISI Flaw NA NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541285

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: ASME III CL 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: ASME III CL 2, 1974 Edition, Winter 1975 Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial 0011 Date 9-8-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DSP Date 9/8/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 9/8/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 9/8/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSGEL042	<u>PIPE</u>	<u>NA</u>	<u>806074</u>	<u>MRK 00946</u>
1PSGEL045	<u>PIPE</u>	<u>NA</u>	<u>806074</u>	<u>MRK 00946</u>
1SG045H017 <u>N/A</u>	<u>WORK PERFORM ON ANOTHER WPIR 0011 12-8-05</u>			

18. Planner Dale S. Preslar 9/8/05 Printed Name: Dale S. Preslar
Signature Date

19. ISI DJH 9-8-05 Printed Name: HANSEN Log Entry 0011
Signature Date

20. ANII R.G. Hogstrom 9-8-05 Printed Name: R.G. Hogstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/08/05

P.O. Box 53999, Phoenix, Arizona 85072-2034

Address

Sheet 1 of 2

2. Plant Palo Verde Nuclear Generating Station

Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529

Address

Unit 1

2665217

Work Order Number

3. Work Performed by Bechtel Construction

Name

Type Code Symbol Stamp None

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, AZ 85354

Address

Expiration Date N/A

4. Identification of System SG #2

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	225	174	1MRCEE01B	2005	Replacement	Yes
Main Steam	NA	NA	NA	1PSGEL042	NA	Replacement	No
Main Steam	NA	NA	NA	1PSGEL045	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒

Other ☐

Pressure _____ psi

Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install Main Steam piping (1PSGEL042 & 1PSGEL045) to the replacement steam generator
(1MRCEE01B) This work was performed per DIWO 2665217.
DMWO 2541285
WP&IR P - MS2 - 424

Pre-Pressure Test Review: ISI DSH 12-8-05 ANII W. J. H. E. H. 12-8-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DSH ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-8-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

DSH Signature Commissions NB 9685 "A.N.I.C." Az 264
Inspector's Signature National Board, State, Province, and Endorsements

Date 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 2

1. Component ID 1PSGEL002 / 1PSGEL013
- 2.. Item Description: Steam Generator #1 Feedwater lines SG-E-002-DLBB-14" & SG-E-013-DLBB-14"
3. N-5 Data Package Number: 1SG01-1A 4. W.O. Number: DIWO 2665220
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: DMWO 2541285, WPIR P-FW1-411 Fabricate and install new feedwater pipe from Replacement Steam Generator No. 1 nozzle 16 (2 ea.) to the existing elbow.
8. ☐ ISI Flaw NA NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541285

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: ASME III CL 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: ASME III CL 2, 1974 Edition, Winter 1975 Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DBH Date 9-8-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DBH Date 9/8/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DBH Date 9/8/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DBH Date 9/8/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSGEL002 PIPE			SEE ATTACHED	
1PSGEL013 PIPE			MATERIAL	
1PSGEL002 45° ELBOW (2)			TRACEABILITY	
1PSGEL013 45° ELBOW (2)			SLEETS	

18. Planner Dale S. Preslar 9/8/05 Printed Name: Dale S. Preslar
Signature Date

19. ISI DBH 9-8-05 Printed Name: D. S. Hansen Log Entry DBH
Signature Date

20. ANII R.G. Hoagstrom 9-8-05 Printed Name: R.G. Hoagstrom
Signature Date

[illegible]

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/06/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address
2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665220
Address Work Order Number
3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, AZ 85354 Authorization No. N/A
Address Expiration Date N/A
4. Identification of System SG #1
5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda
6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	173	1MRCEE01A	2005	Replacement	Yes
Feedwater	NA	NA	NA	1PSGEL002	NA	Replacement	No
Feedwater	NA	NA	NA	1PSGEL013	NA	Replacement	No

7. Description of Work See remarks on sheet 2
8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒
 Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install FEEDWATER piping (1PSGEL002 & 1PSGEL013) to the replacement steam generator
(1MRCEE01B). The disposition of Bechtel NCR -038 for minimum wall verification and blending
an existing weld buildup area was implemented. This work was performed per DIWO 2665220

DMWO 2541285

WP&IR P - FW2 - 411

Pre-Pressure Test Review: ISI DBH 12-6-05 ANII WEA 12-6-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules
of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH ENJR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT
of Hartford, Connecticut, have inspected the components described in this Owner's Report during
the period 9-8-05 to 12-20-05, and state that to the best of my knowledge and
belief, the Owner has performed examinations and taken corrective measures described in this Owner's
Report in accordance with the requirements of the ASME Code, Section XI.

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

RB Lytton
Inspector's Signature

Commissions NB 9685 "A.N.I.C" Az 264
National Board, State, Province, and Endorsements

Date 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 2

1. Component ID 1PSGEL005 / 1PSGEL014
- 2.. Item Description: Steam Generator #1 Feedwater lines SG-E-005-DLBB-14" & SG-E-014-DLBB-14"
3. N-5 Data Package Number: 1SG01-1A 4. W.O. Number: DIWO 2665223
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: DMWO 2541285, WPIR P-FW2-412 Fabricate and install new feedwater pipe from Steam Generator No. 2 nozzle 16 (2 ea.) to the existing carbon steel elbows.
8. ☐ ISI Flaw μA NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541285

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: ASME III CL 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: ASME III CL 2, 1974 Edition, Winter 1975 Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DSP Date 9-8-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DSP Date 9/8/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 9/8/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 9/8/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSGEL005 PIPE			<u>SEE COPY OF</u>	
1PSGEL014 PIPE			<u>MATERIAL TRACEABILITY</u>	
1PSGEL005 45° ELBOW (2)			<u>SHEETS</u>	
1PSGEL014 45° ELBOW (2)			<u>↓</u>	

18. Planner Dale S. Preslar 9/8/05 Printed Name: Dale S. Preslar
Signature Date

19. ISI DJH 9-8-05 Printed Name: HANSEN Log Entry DDH
Signature Date

20. ANII RG Hogstrom 9-8-05 Printed Name: RG HOGSTROM
Signature Date

DIWO 2665223[illegible]

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/06/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665223
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, AZ 85354 Expiration Date N/A
Address

4. Identification of System SG #2

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	225	174	1MRCEE01B	2005	Replacement	Yes
Feedwater	NA	NA	NA	1PSGEL005	NA	Replacement	No
Feedwater	NA	NA	NA	1PSGEL014	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install FEEDWATER piping (1PSGEL008 & 1PSGEL014) to the replacement steam generator (1MRCFE01B). The disposition of Bechtel NCR -038 for minimum wall verification and blending an existing weld buildup area was implemented. This work was performed per DIWO 2665223

DMWO 2541285

WP&IR P-FW2-412

Pre-Pressure Test Review: ISI DBH 12-6-05 ANII W.F. Walker 12-6-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed *[Signature]* ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-8-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 NS 9685 "A.N.I.C" Az 264
Inspector's Signature National Board, State, Province, and Endorsements

Date 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 2

1. Component ID 1PSGEL039 & 1PSGEL053
- 2.. Item Description: Steam Generator # 1 Blowdown Piping Lines # SG-E-039-DABA-6" and SG-E-053-DABA-6"
3. N-5 Data Package Number: 1SG01-1A 4. W.O. Number: 2665224
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Installation of the 6" Blowdown Pipe in accordance with WPIR P-BD1-401
8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541285
DIWO 2665224

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DDH Date 10-12-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DDA Date 9-15-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DDA Date 9-15-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DDA Date 9-15-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSGEL039				
1PSGEL053				
<u>1SG039 H038</u>	<u>SEE</u>	<u>PAGE 2</u> <u>DATE 12-8-05</u>		

18. Planner Dale S. Preslar 9/15/05 Printed Name: Dale Preslar
Signature Date

19. ISI DDH 10-12-05 Printed Name: D.S. Hansen Log Entry DDH
Signature Date

20. ANII RD Klein 10-12-05 Printed Name: RD KLEIN
Signature Date

[illegible]

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/08/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address
2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665224
Address Work Order Number
3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
Authorization No. N/A
5801 S. Wintersburg Rd., Tonopah, AZ 85354 Expiration Date N/A
Address

4. Identification of System SG #1

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	173	1MRCEE01A	2005	Replacement	Yes
Blowdown Piping	NA	NA	NA	1PSGEL039	NA	Replacement	No
Blowdown Piping	NA	NA	NA	1PSGEL053	NA	Replacement	No
Pipe Support	NA	NA	NA	1SG039H038	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Reroute and add a downcomer blowdown connection to blowdown piping (1PSGEI 039 and
1PSGEI 053) to the replacement steam generator (1MRCEE01A) Modify pipe support
1SG039H038 This work was performed per DIWO 2665224
DMWO 2541285
WP&IR P - BD1 - 401

Pre-Pressure Test Review: ISI

03H
12-8-05

ANII

William E. White

12-8-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules
of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH ENGK Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-12-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS Lipton
Inspector's Signature

Commissions NB 9685 "A.N.I.C." Az 264
National Board, State, Province, and Endorsements

Date 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page

of

1. Component ID 1PSGEL048 & 1PSGEL052
- 2.. Item Description: Steam Generator # 2 Blowdown Piping Lines # SG-E-048-DABA-6" and SG-E-052-DABA-6"
3. N-5 Data Package Number: 1SG02-1A 4. W.O. Number: 2665227
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Installation of the 6" Blowdown Pipe in accordance with WPIR P-BD2-402
8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541285
DIWO 2665227

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DDH Date 10-12-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DSA Date 9-15-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSA Date 9-15-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSA Date 9-15-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSGEL048 PIPE	N/A	N/A	942290	MRR 02287
1PSGEL052 PIPE	N/A	N/A	942290	MRR 02287
1JSGEHV0044	ORIGINAL VALVE NOT REPAIRED OR REPLACEMENT 02211			
1SG057H011 PLATE 3/8"	N/A	N/A	JE3975TR*24568	MRR 20350
1SG048H003	REMOVED ABANDONED SUPPORT			
1PSGEL048 ELBOW	N/A	N/A	MFYN-1	MRR 02275
1PSGEL048 WELDLET	N/A	N/A	3510ANL2	MRR 02339
1PSGEL052 ELBOW	N/A	N/A	MFYN-1	MRR 02275

18. Planner Dale S. Preslar 9/15/05 Printed Name: Dale Preslar
Signature Date

19. ISI D.O. Hansen 10-12-05 Printed Name: D.O. Hansen Log Entry 0234
Signature Date

20. ANII R.J. Klein 10-12-05 Printed Name: R.J. Klein
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/01/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665227
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, AZ 85354 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System SG #2

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	225	174	1MRCEE01B	2005	Replacement	Yes
Blowdown Piping	NA	NA	NA	1PSGEL048	NA	Replacement	No
Blowdown Piping	NA	NA	NA	1PSGEL052	NA	Replacement	No
Pipe Support	NA	NA	NA	1SG057H011	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Reroute and add a downcomer blowdown connection to blowdown piping (1PSGEI 048 and
1PSGEI 052) to the replacement steam generator (1MRCEE01B). Rotate and reinstall Valve
1ISGEHV0044. Modify pipe support 1SG057H011. This work was performed per DIWO
2665227

DMWO 2541285

WP&IR P - BD2 - 402

Pre-Pressure Test Review: ISI DBH 12-1-05 ANII WFAH 12-2-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules
of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH - ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-12-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

DBH Inspector's Signature Commissions NB 9685 "A.N.I.C." Az 264
National Board, State, Province, and Endorsements

Date 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page

of

1 DEN
12-20-05
4

1. Component ID 1PSGEL008
- 2.. Item Description: Steam Generator # 1 Downcomer Feedwater Pipe Line # SG-E-008-DCBA-6"
3. N-5 Data Package Number: 1SG01-1A 4. W.O. Number: 2665228
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Installation of the 6" Downcomer Feedwater Pipe in accordance with WPIR P-DF1-405
8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541285
DIWO 2665228

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III C1 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III C1 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DDH Date 10-12-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DDH Date 9-15-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DDH Date 9-15-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DDH Date 9-15-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSGEL008 <u>NOTE</u>	<u>N/A</u>	<u>N/A</u>	<u>SEE</u>	<u>SEE</u>
1PSGEL518 <u>BELOW</u>	<u>DDH 12-4-05 N/A</u>	<u>N/A</u>	<u>ATTACH. "D"</u>	<u>ATTACH. "D"</u>
<u>1PSGEL008</u>	<u>WELDOLET</u>	<u>NA</u>	<u>1488ANE3</u>	<u>MRR 02183</u>
<u>"</u>	<u>REDUCER</u>	<u>NA</u>	<u>MRB-1</u>	<u>MLL 02338</u>
<u>"</u>	<u>PIPE</u>	<u>NA</u>	<u>2D260</u>	<u>MLL 02292</u>
<u>"</u>	<u>ELBOW</u>	<u>NA</u>	<u>MEWL-1</u>	<u>MLL 02338</u>

18. Planner Dale S. Preslar 9/15/05 Printed Name: Dale Preslar
Signature Date

19. ISI DDH 10-12-05 Printed Name: HANSEN Log Entry DDH
Signature Date

20. ANII RD Klein 10-12-05 Printed Name: RD KLEIN
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/04/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665228
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, AZ 85354 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System SG #1

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	173	1MRCEE01A	2005	Replacement	Yes
Downcomer FW	NA	NA	NA	1PSGEL008	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒
 Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install downcomer feedwater piping (1PSGEL008) to the replacement steam generator
(1MRCEE01A). This work was performed per DIWO 2665228
DMWO 2541285
WP&IR P - DF1 - 405

Pre-Pressure Test Review: ISI DBH 12-4-05 ANII William E. Kibler 12-4-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH - ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-12-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL Lytton Commissions NB 9685 "A.N.I.C" Az 264
Inspector's Signature National Board, State, Province, and Endorsements

Date 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 2

1. Component ID 1MRCEE01A
- 2.. Item Description: Steam Generator # 1
3. N-5 Data Package Number: 1SG01-1A 4. W.O. Number: 2665228
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Installation of the 4" Feedwater Recirculation Pipe in accordance with WPIR P-RC1-434 NCR-080
8. ☐ ISI Flaw NA NDE Method of Flaw Detection: NA
Report Number: NA
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541285

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III C1 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III C1 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DMH Date 9-8-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required:
- ☒
- YES
- ☐
- NO

Initial DSP Date 9/8/05 If required, include a step in the W.O. for ISI & ANII Inspection.Initial DSP Date 9/8/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.Initial DSP Date 9/8/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
<u>1SGE51B DLBB</u>			<u>SEE ATTACHED MATERIAL</u>	
<u>JAWES 1PSGEV996</u>			<u>TRACEABILITY SHEETS</u>	
<u>1PSGEV997</u>			<u>↓</u>	

18. Planner Dale S. Preslar 9/8/05
Signature DatePrinted Name: Dale S. Preslar19. ISI D.B. Hansen 9-8-05
Signature DatePrinted Name: D.B. Hansen Log Entry DOT20. ANII R.G. Hogstrom 9-8-05
Signature DatePrinted Name: R.G. Hogstrom

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/06/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address
2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665228
Address Work Order Number
3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
Authorization No. N/A
5801 S. Wintersburg Rd., Tonopah, AZ 85354 Expiration Date N/A
Address

4. Identification of System SG #1

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	173	1MRCEE01A	2005	Replacement	Yes
FW Recirculation	NA	NA	NA	1PSGEL518	NA	Replacement	No
Valve	Flowserve	AX567	NA	1PSGEV996	2005	Replacement	Yes
Valve	Flowserve	AX564	NA	1PSGEV997	2005	Replacement	Yes

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install feedwater recirculation piping (1PSGEL518) and valves (1PSGEV996 and 997) to the
replacement steam generator (1MRCEE01A). This work was performed per DIWO 2665228
DMWO 2541285
WP&IR P - RC2 - 434

Pre-Pressure Test Review: ISI DIWH 12-6-05 ANII Waller & Allen 12-7-05
12-7-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules
of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DIWH - ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT
of Hartford, Connecticut, have inspected the components described in this Owner's Report during
the period 9-7-05 to 12-20-05, and state that to the best of my knowledge and
belief, the Owner has performed examinations and taken corrective measures described in this Owner's
Report in accordance with the requirements of the ASME Code, Section XI.

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

RS [Signature] Commissions NB 9685 "A, N, I, C" Az 264
Inspector's Signature National Board, State, Province, and Endorsements
Date 12-20-05

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

Pg. 1 of 2

1. Manufactured and certified by Flowserve Corporation, 1900 S. Saunders Street, Raleigh, NC 27603
(Name and Address of N Certificate Holder)
2. Manufactured for Pinnacle West Capital Corp., P.O. Box 3940, Phoenix, AZ 85072
(Name and Address of Purchaser)
3. Location of Installation Arizona Public Service, Palo Verde Nuclear Station, 5801 S. Wintersburg Rd., Tonopah, AZ 85354
(Name and Address)
4. Model No., Series No., or Type 900# PS GATE Drawing S03-24094-02 Rev D CRN —
5. ASME Code, Section III, Division 1: 1974 Winter 1975 2 1635-1
(edition) (addenda date) (class) (Code Case no.)
6. Pump or Valve Valve Nominal Inlet Size 4" Outlet Size 4"
(inch) (inch)
7. Material: Body SA216, WCB Bonnet SA105 Disk SA105 Bolting N/A

[illegible]

*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, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

Certificate Holder's Serial No. AX564-AX565

8. Design conditions 2160 psi 100 °F or valve pressure class 900
(pressure) (temperature)
9. Cold working pressure 2160 psi at 100 °F
10. Hydrostatic test 3375 psi. Disk Differential test pressure 2450 psi.
11. Remarks: Other pressure retaining parts: Gasket Retainer - SA105 - Trace code - 83737.

S. O. 31788-02

CERTIFICATION OF DESIGN

Design specification certified by Ronald C. Gibson P.E. State DC Reg. no. 8208
 Design Report certified by _____ 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 of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. 1.,

N Certificate of Authorization No. N-1562 Expires Nov. 26, 2006

Date 5/31/05 Name Flowserve Corporation Signed [Signature]
(N Certificate Holder) (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford Connecticut have inspected the pump, or valve, described in this Data Report on 5/31/05, and state that, to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with ASME Code, Section III, Div. 1.

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

Date 5/31/05

Signed [Signature] Commissions NC 1421
(Inspector) (Nat'l Bd., State, Prov. and No.)

Pg. 1 of 2

[illegible]

2

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

Certificate Holder's Serial No. AX566-AX567Design conditions 2160 psi 100 °F or valve pressure class 900
(pressure) (temperature)9. Cold working pressure 2160 psi at 100 °F10. Hydrostatic test 3375 psi. Disk Differential test pressure 2450 psi.11. Remarks: Other pressure retaining parts: Gasket Retainer - SA516, Gr. 70 - Trace code - 21399.

S. O. 31788

CERTIFICATION OF DESIGN

Design specification certified by Ronald C. Gibson P.E. State DC Reg. no. 8208
Design Report certified by _____ 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 of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. 1.

N Certificate of Authorization No. N-1562 Expires Nov. 26, 2006Date 5/31/05 Name Flowserve Corporation Signed [Signature]
(N Certificate Holder) (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford Connecticut have inspected the pump, or valve, described in this Data Report on 5131105, and state that, to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with ASME Code, Section III, Div. 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 5131105Signed [Signature] Commissions NC 1421
(Inspector) (Natl Bd., State, Prov. and No.)

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 2

1. Component ID 1PSGEL519
- 2.. Item Description: Steam Generator #2 Feedwater Recirculation Pipe Line SG-E-519-DLBB-4"
3. N-5 Data Package Number: 1SG02-1A 4. W.O. Number: 2665233
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Installation of the 4" Feedwater Recirculation Pipe in accordance with WPIR P-RC2-435
8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541285
DIWO 2665233

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DSP Date 10-12-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DSP Date 7-15-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 7-15-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 7-15-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSGEL011	N/A	N/A		
1PSGEL519	N/A	N/A		
1PSGEV994	N/A	SN AX565	04321	MRE 02372 MWR 01879
1PSGEV995		SN AX565	04319-V1128	MRE 02372 MWR 01879
1SG011H004	No Physical Work Rev'd. Loads on Spring Can			
	SEE ATTACHED LIST			
			DDH	12-4-05

18. Planner Dale S. Preslar 9/15/05 Printed Name: Dale S. Preslar
Signature Date

19. ISI DSP 10-12-05 Printed Name: Hawker Log Entry PH
Signature Date

20. ANII R.D. Klein 10-12-05 Printed Name: R.D. Klein
Signature Date

[illegible]

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/04/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665233
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, AZ 85354 Expiration Date N/A
Address

4. Identification of System SG #2

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	225	174	1MRCEE01B	2005	Replacement	Yes
FW Recirculation	NA	NA	NA	1PSGEL519	NA	Replacement	No
Valve	Flowserve	AX565	NA	1JSGEV995	2005	Replacement	Yes
Valve	Flowserve	AX566	NA	1JSGEV994	2005	Replacement	Yes

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install feedwater recirculation piping (1PSGEL519) and valves (1ISGEV994 and 995) to the
replacement steam generator (1MRCEE01B). This work was performed per DIWO 2665233

DMWO 2541285

WP&IR P - RC2 - 435

Pre-Pressure Test Review: ISI

DBH 12-4-05

ANII

William E. Miller

12-5-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules
of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT
of Hartford, Connecticut, have inspected the components described in this Owner's Report during
the period 10-12-05 to 12-20-05, and state that to the best of my knowledge and
belief, the Owner has performed examinations and taken corrective measures described in this Owner's
Report in accordance with the requirements of the ASME Code, Section XI.

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

RS
Inspector's Signature

Commissions NB 9685 "A.N.I.C." Az 264
National Board, State, Province, and Endorsements

Date 12-20-05

Pg. 1 of 2

[illegible]

2

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

Certificate Holder's Serial No. AX566-AX567

3. Design conditions 2160 psi 100 °F or valve pressure class 900
(pressure) (temperature)
9. Cold working pressure 2160 psi at 100 °F
10. Hydrostatic test 3375 psi. Disk Differential test pressure 2450 psi.
11. Remarks: Other pressure retaining parts: Gasket Retainer - SA516, Gr. 70 - Trace code - 21399.

S. O. 31788

CERTIFICATION OF DESIGN

Design specification certified by Ronald C. Gibson P.E. State DC Reg. no. 8208
Design Report certified by _____ 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 of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. 1.

N Certificate of Authorization No. N-1562 Expires Nov. 26, 2006

Date 5/31/05 Name Flowserve Corporation Signed [Signature]
(N Certificate Holder) (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford Connecticut have inspected the pump, or valve, described in this Data Report on 5/31/05, and state that, to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with ASME Code, Section III, Div. 1.

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

Date 5/31/05

Signed [Signature] Commissions NC#1421
(Inspector) (Nat'l Bd., State, Prov. and No.)

Pg. 1 of 2

[illegible]

2

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

Certificate Holder's Serial No. AX564-AX565

8. Design conditions 2160 psi 100 °F or valve pressure class 900
(pressure) (temperature)
9. Cold working pressure 2160 psi at 100 °F
10. Hydrostatic test 3375 psi. Disk Differential test pressure 2450 psi.
11. Remarks: Other pressure retaining parts: Gasket Retainer - SA105 - Trace code - 83737.

S. O. 31788-02

CERTIFICATION OF DESIGN

Design specification certified by Ronald C. Gibson P.E. State DC Reg. no. 8208
 Design Report certified by _____ 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 of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. 1.,

N Certificate of Authorization No. N-1562 Expires Nov. 26, 2006

Date 5/31/05 Name Flowserve Corporation Signed [Signature]
(N Certificate Holder) (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford Connecticut have inspected the pump, or valve, described in this Data Report on 5/31/05, and state that, to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with ASME Code, Section III, Div. 1.

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

Date 5/31/05

Signed [Signature] Commissions NC 1421
(Inspector) (Natl Bd., State, Prov. and No.)

ASME SECTION XI - REPAIR / REPLACEMENT

Page

of

3

1. Component ID 1PSGEL011 DBH 12-9-05 DBH 12-9-05 2
 2. Item Description: Steam Generator # 2 Downcomer Feedwater Pipe Line # SG-E-011-DCBA-6" DBH 12-9-05
 3. N-5 Data Package Number: 1SG02-1A 4. W.O. Number: 2665233 DBH 12-9-05
 5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
 6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
 7. Work Description: Installation of the 6" Downcomer Feedwater Pipe in accordance with WPIR P-DF2-406
 8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
 Report Number: N/A
 9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:

DMWO 2541285DIWO 2665233

10. Repair/Replacement Work Organization: Bechtel Construction
 11. Replacement Items Construction or reconciled Code/Edition: Sec. III C1 2, 1974 Edition, Winter 1975 Addenda
 12. Repair/Replacement Activity Construction Code/Edition: Sec. III C1 2, 1974 Edition 1975 Winter Addenda
 13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
 14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DBH Date 10-12-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required:
- ☒
- YES
- ☐
- NO

Initial DBH Date 9-15-05 If required, include a step in the W.O. for ISI & ANII Inspection.Initial DBH Date 9-15-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.Initial DBH Date 9-15-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSGEL011 *	NA	NA	NA	NA
1PSGEL519	*SEE ATTACHED PAGE 2 FOR			MAT'L USED DBH 12-9-05

18. Planner Dale S. Preslar 9/15/05 Printed Name: Dale Preslar
Signature Date19. ISI DBH 10-12-05 Printed Name: Harren Log Entry DBH
Signature Date20. ANII R. Klein 10-12-05 Printed Name: R. D. KLEIN
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/09/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665233
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, AZ 85354 Expiration Date N/A
Address

4. Identification of System SG #2

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	225	174	1MRCEE01B	2005	Replacement	Yes
Downcomer FW	NA	NA	NA	1PSGEL011	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install downcomer feedwater piping (1PSGEI 011) to the replacement steam generator
(1MRCEE01B) This work was performed per DIWO 2665233
DMWO 2541285
WP&IR P - DF2 - 406

Pre-Pressure Test Review: ISI DBH 12-9-05 ANII WE Loh 12-9-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules
of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT
of Hartford, Connecticut, have inspected the components described in this Owner's Report during
the period 10-12-05 to 12-20-05, and state that to the best of my knowledge and
belief, the Owner has performed examinations and taken corrective measures described in this Owner's
Report in accordance with the requirements of the ASME Code, Section XI.

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

RS Lipton Commissions NB 9685 "A.N.I.C" Az 264
Inspector's Signature National Board, State, Province, and Endorsements
Date 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 2

1. Component ID 1PSGEL522
2. Item Description: Steam Generator # 1 Downcomer Blowdown Piping Lines # SG-E-522-DABA-4"
3. N-5 Data Package Number: 1SG01-1A 4. W.O. Number: 2665372
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Installation of the 4" Downcomer Blowdown Pipe and components in accordance with WPIR P-DB1-403
8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2585669
DIWO 2665372

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III C1 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III C1 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DDH Date 10-12-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DSP Date 9-15-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 9-15-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 9-15-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSGEL522		AK 770 11176	SEE ATTACHED	
1PSGEL039		N/A	SEE ATTACH "D"	
1JSGEHV0047		AK 770 11176	04366	MWR 01903 MRB 02487
1SG522H001		SEE ATTACHED		
1SG522H002	98N VARIABLE SPRING	41-69547	N/A	MWR 01888 MRB 02271
1SG522H003		DBH	12-3-05	
MRCEE01A				

18. Planner Dale S. Preslar 9/15/05 Printed Name: Dale Preslar
Signature Date

19. ISI D. S. Hansen 10-12-05 Printed Name: D. S. Hansen Log Entry DBH
Signature Date

20. ANII R. J. Klein 10-12-05 Printed Name: R. J. Klein
Signature Date

[illegible]

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/03/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address
2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665372
Address Work Order Number
3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, AZ 85354 Authorization No. N/A
Address Expiration Date N/A
4. Identification of System SG #1
5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	173	1MRCEE01A	2005	Replacement	Yes
Downcomer BD	NA	NA	NA	1PSGEL522	NA	Replacement	No
Valve	Flowserve	AX770	NA	1JSGEHV047	2005	Replacement	No
Pipe Support	Anvil International	2005-23	NA	1SG522H002	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install downcomer blowdown piping (1PSGEI522) and valve (1ISGEHV047) to the replacement steam generator (1MRCEE01A). Install pipe support 1SG522H002. This work was performed per DIWO 2665372.

DMWO 2585669

WP&IR P - DB1 - 403

Pre-Pressure Test Review: ISI DBH 12-3-05 ANII William E. Allen 12-3-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-12-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RBH Inspector's Signature Commissions NS 2685 "A.N.I.C." Az 264
National Board, State, Province, and Endorsements
Date 12-20-05

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

Manufactured and certified by Flowserve Corporation, 1900 S. Saunders Street, Raleigh, NC 27603

(Name and Address of N Certificate Holder)

(Name and Address of Purchaser)

(Name and Address)

Drawing

1974

(addenda date)

2

N/A

Valve

4''

4th

SA217, WC9

Bonnet

SA-182-F22

Disk

SA217, WC9

Bolting

N/A

(b)

5. (c)

(d)

(e)

Nat'l

Body

Bonnet

Disk

Board

Serial

Serial

Serial

No.

..No..

No.

No.

N/A

04366-V1176

84282-1

04374-V1195

N/A

04366-V1177

84282-2

04374-V1217

*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, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

Certificate Holder's Serial No. AX770-AX771

8. Design conditions 1170 psi 564 °F or valve pressure class 900
(pressure) (temperature)
9. Cold working pressure 2250 psi at 100 °F
10. Hydrostatic test 3375 psi. Disk Differential test pressure 2250 psi.
11. Remarks: Other pressure retaining parts: Gasket Retainer - SA387, Gr. 22, Cl. 2 - Trace code - 24329.

S. O. 31592

CERTIFICATION OF DESIGN

Design specification certified by Ronald C. Gibson P.E. State DC Reg. no. 8208
Design Report certified by _____ 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 of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. 1.

N Certificate of Authorization No. N-1562 Expires Nov. 26, 2006
Date 6/29/05 Name Flowserve Corporation Signed [Signature]
(N Certificate Holder) (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford Connecticut have inspected the pump, or valve, described in this Data Report on 6/29/05, and state that, to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with ASME Code, Section III, Div. 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 6/29/05
Signed [Signature] Commissions NC #1421
(Inspector) (Nat'l Bd., State, Prov and No.)

FORM NF-1 CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS*
As Required by the Provisions of the ASME Code, Section III, Division 1 Pg. 1 of 2

1. Manufactured by Anvil International, Inc. - 160 Frenchtown Rd. No. Kingstown, RI 02852
(name and address of NPT Certificate Holder)

2. Manufactured for Bechtel Construction Corporation 5801 S Wintersburg Road Tonopah, AZ 85354
(name and address of Purchaser)

3. Location of installation APS Palo Verde Nuclear Station 5801 S. Wintersburg Rd, Tonopah, AZ 85354
(name and address)

4. Type: C.S.S. DRS 82 Rev.11 2005
(describe) (Design Report or Load Capacity Data Sheet) (year built)

5. ASME Code, Section III, Division 1: 1974 Winter 1975 1 N/A
(edition) (addenda date) (class) (Code Case no.)

6. Identification

	(a) Component Support I.D. No.	(b) Material Specification No.	(c) Canadian Registration No.	(d) Applicable Drawings With Last Rev. & Date	(e) National Board No.
(1)	2005- 23	Note 1	N/A	CH1354/B 4/8/02	N/A
(2)	2005- 24	Note 1	N/A	CH1354/B 4/8/02	N/A
(3)					
(4)					
(5)					
(6)					
(7)					
(8)					
(9)					
(10)					

7. Remarks:

Note 1: A322 5160H, SA36, SA53 GR.B, SA106 GR.B, E71T-1

PO#: 25030-211-QAS-PH02-00009 REV.0

SO#: 41-69547

*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 1 through 4 on this Data Report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(12/88)

This form (E00075) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

MRR # 02271
Page 5 of 122

FORM NF-1 (Back - Pg. 2 of 2)

Component Support I.D. Nos. 2005-23 through 2005-24

CERTIFICATE OF DESIGN

Design Specification certified by H. R. Sonderegger P.E. State R.I. Reg. no 3537
Design Report certified by Frank J. Birch P.E. State R.I. Reg. no 4149

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-2802 Expires 9/29/2007

Date 5-26-05 Name Anvil International, Inc. Signed [Signature]
(NPT Certificate Holder)

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 Rhode Island and employed by H.S.B. C.T. of Hartford, C.T. have inspected the component supports described in this Data Report on 5/26/2005, and state that to the best of my knowledge and belief, the Certificate Holder has constructed these component supports 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 supports described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 5/26/2005 Signed [Signature] Commissions RI 862 ABNI
(Authorized Inspection) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

MRR # 02271

Page 6 of 122

to 0067

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 2

1. Component ID 1PSGEL523
- 2.. Item Description: Steam Generator # 2 Downcomer Blowdown Piping Lines # SG-E-523-DABA-4"
3. N-5 Data Package Number: 1SG02-1A 4. W.O. Number: 2665374
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Installation of the 4" Downcomer Blowdown Pipe and components in accordance with WPIR P-BD2-404
8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2585669
DIWO 2665374

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DSP Date 10-12-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DSP Date 9-15-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 9-15-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 9-15-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSGEL523			SEE ATTACHED "D" & "E"	
1PSGEL052	NA	NA	NA	NA
1JSGEHV0048				
1SG523H001				
1SG523H002				
1SG523H003				
1SG523H004	NO ASME SCOPE			
1SG032H00Q	NO ASME SCOPE			
1MRCEE01B	NA	NA	NA	NA

18. Planner Dale S. Preslar 9/15/05 Printed Name: Dale Preslar
Signature Date

19. ISI D.S. Hansen 10-12-05 Printed Name: D.S. Hansen Log Entry DBIT
Signature Date

20. ANII R.D. Klein 10-12-05 Printed Name: R.D. Klein
Signature Date

ASME SECTION XI REPAIR/REPLACEMENT CONTINUATION FORM

DIWO 2665374

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSGEL519	Reducer	NA	NEQG	MRR 02652
	PIPE	NA	382165	MRR 02253
	ELBOW	NA	NDKE	MRR 02465
	ELBOW	NA	HN6159	MRR 02405
	ELBOW	NA	HN6153	MRR 02405
	ELBOW	NA	HN6152	MRR 02405
	ELBOW	NA	HN6168	MRR 02405
1PSGEHV048	VALVE	AX771	NA	MRR 2487
1SG523H001	Support	2005-24	NA	MRR 02271
1SG523H002	Support beam attach	NA	066P0063NB	MRR 02271
	Support pipe clamp	NA	29500400NB	MRR 02271
	Support Eye Nut	NA	290L0063NB	MRR 02271
	Support threaded rod	NA	Fig 253 N	MRR 02271
	Support Eye Nut	NA	290000063NB	MRR 02271
	Support Hex Nut	NA	NUT062011HBN	MRR 02271
1SG523H003	Support pipe clamp	NA	SSCLAB0600BN	MRR 02271
	Support pivot mount	NA	1801178-30W	MRR 02935

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/04/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665374
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, AZ 85354 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System SG #2

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	225	174	1MRCEE01B	2005	Replacement	Yes
Downcomer BD	NA	NA	NA	1PSGEL523	NA	Replacement	No
Valve	Flowserve	AX771	NA	1JSGEHV048	2005	Replacement	No
Pipe Support	Anvil International	2005-24	NA	1SG523H001	2005	Replacement	Yes
Pipe Support	NA	NA	NA	1SG523H002	NA	Replacement	No
Pipe Support	NA	NA	NA	1SG523H003	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒
 Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install downcomer blowdown piping (1PSGEL523) and valve (1ISGEHV048) to the replacement steam generator (1MRCEE01B). Install pipe support 1SG522H001, 2 and 3. This work was performed per DIWO 2665374.

DMWO 2585669

WP&IR P-DB2-404

Pre-Pressure Test Review: ISI

DBH 12-6-05

ANII

W. J. L. L.

12/6/05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed

DBH

ENGR

Owner or Owner's Designee, Title

Date

12-20-05

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT. of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-12-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

R. J. L.
Inspector's Signature

Commissions

NB 9685 "A.N.I.C." Az 264

National Board, State, Province, and Endorsements

Date

12-20-05

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

Manufactured and certified by Flowserve Corporation, 1900 S. Saunders Street, Raleigh, NC 27603
(Name and Address of N Certificate Holder)

2. Manufactured for Pinnacle West Capital Corp., P.O. Box 3940, Phoenix, AZ 85072
(Name and Address of Purchaser)

3. Location of Installation Arizona Public Service, Palo Verde Nuclear Station, 5801 S. Wintersburg Rd., Tonopah, AZ 85354
(Name and Address)

4. Model No., Series No., or Type 900# FW GATE Drawing 04-31592-01 Rev B CRN —

5. ASME Code, Section III, Division 1: 1974 Winter 1975 2 N/A
(edition) (addenda date) (class) (Code Case no.)

6. Pump or Valve Valve Nominal Inlet Size 4"
(inch) Outlet Size 4"
(inch)

7. Material:	Body	SA217, WC9	Bonnet	SA-182, F22	Disk	SA217, WC9	Bolting	N/A
--------------	------	------------	--------	-------------	------	------------	---------	-----

(a)
Cert.
Holder's
Serial No.

(b)
Nat'l
Board
No.

Body
Serial
No.

(d)
Bonnet
Serial
No.

(e)
Disk
Serial
No.

AX770

N/A

04366-V1176

84282-1

04374-V1195

AX771

N/A

04366-V1177

84282-2

04374-V1217

3

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

Certificate Holder's Serial No. AX770-AX771

8. Design conditions 1170 psi 564 °F or valve pressure class 900
(pressure) (temperature)
9. Cold working pressure 2250 psi at 100 °F
10. Hydrostatic test 3375 psi. Disk Differential test pressure 2250 psi.
11. Remarks: Other pressure retaining parts: Gasket Retainer - SA387, Gr. 22, Cl. 2 - Trace code - 24329.

S. O. 31592

CERTIFICATION OF DESIGN

Design specification certified by Ronald C. Gibson P.E. State DC Reg. no. 8208
Design Report certified by _____ 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 of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. 1.

N Certificate of Authorization No. N-1562 Expires Nov. 26, 2006

Date 6/29/05 Name Flowserve Corporation Signed [Signature]
(N Certificate Holder) (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford Connecticut have inspected the pump, or valve, described in this Data Report on 6/29/05, and state that, to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with ASME Code, Section III, Div. 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 6/29/05

Signed [Signature] Commissions NC #1421
(Inspector) (Nat'l Bd., State, Prov and No)

FORM NF-1 CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS*
As Required by the Provisions of the ASME Code, Section III, Division 1 Pg. 1 of 2

1. Manufactured by Anvil International, Inc. - 160 Frenchtown Rd. No. Kingstown, RI 02852
(name and address of NPT Certificate Holder)

2. Manufactured for Bechtel Construction Corporation 5801 S Wintersburg Road Tonopah, AZ 85354
(name and address of Purchaser)

3. Location of installation APS Palo Verde Nuclear Station 5801 S. Wintersburg Rd, Tonopah, AZ 85354
(name and address)

4. Type: C.S.S. DRS 82 Rev.11 2005
(describe) (Design Report or Load Capacity Data Sheet) (year built)

5. ASME Code, Section III, Division 1: 1974 Winter 1975 1 N/A
(edition) (addenda date) (class) (Code Case no.)

	(a) Component Support I.D. No.	(b) Material Specification No.	(c.) Canadian Registration No.	(d) Applicable Drawings With Last Rev. & Date	(e) National Board No.
(1)	2005- 23	Note 1	N/A	CH1354/B 4/8/02	N/A
(2)	2005- 24	Note 1	N/A	CH1354/B 4/8/02	N/A
(3)					
(4)					
(5)					
(6)					
(7)					
(8)					
(9)					
(10)					

7. Remarks: Note 1: A322 5160H, SA36, SA53 GR.B, SA106 GR.B, E71T-1
PO#: 25030-211-QAS-PH02-00009 REV.0
SO#: 41-69547

*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 1 through 4 on this Data Report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(12/88) This form (E00075) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

MRR # 02271
Page 5 of 122

FORM NF-1 (Back - Pg. 2 of 2)Component Support I.D. Nos. 2005-23 through 2005-24

CERTIFICATE OF DESIGN

Design Specification certified by H. R. Sonderegger P.E. State R.I. Reg. no 3537
Design Report certified by Frank J. Birch P.E. State R.I. Reg. no 4149

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-2802 Expires 9/29/2007

Date 5-26-05 Name Anvil International, Inc. Signed [Signature]
(NPT Certificate Holder)

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 Rhode Island and employed by H.S.B. C.T. of Hartford, C.T. have inspected the component supports described in this Data Report on 5/26/2005, and state that to the best of my knowledge and belief, the Certificate Holder has constructed these component supports 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 supports described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 5/26/2005 Signed [Signature] Commissions RI 862 ASNT
(Authorized Inspection) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

MRR # 02271

Page 6 of 122

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PSIEL210
- 2.. Item Description: Steam Generator # 1 Safety Injection Vent Pipe Line # SI-E-210-GCBB-2"
3. N-5 Data Package Number: 1SI01-1A 4. W.O. Number: 2665772
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Installation of the 2" Safety Injection Vent Pipe in accordance with WPIR P-SIT-443
8. ☐ ISI Flaw N/A NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO 2541288
DIWO 2665772

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DOH Date 10-12-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DSF Date 9-15-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSF Date 9-15-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSF Date 9-15-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1PSIEL210	NO NEW	MATERIALS, WELDS ONLY		

18. Planner Dale S. Preslar 9/15/05 Printed Name: Dale Preslar
Signature Date

19. ISI DRH 10-12-05 Printed Name: Hansen Log Entry DOH
Signature Date

20. ANII R. J. Klein 10-12-05 Printed Name: R. J. KLEIN
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/08/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2665772
Address Work Order Number

3. Work Performed by Bechtel Construction Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, AZ 85354 Expiration Date N/A
Address

4. Identification of System SI

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W 75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Piping	NA	NA	NA	1PSIEL210	NA	Repaired	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ N-416-2 ☒

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Scope of work included the removal and reinstallation of safety injection piping (1PSI/EL 210) per
DIWO 2665772

DMWO 2541288

WP&IR P - SIT - 443

Pre-Pressure Test Review: ISI

01214

12-8-05

ANII

W. Allen & Son 12-8-05

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair conforms to the rules
of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

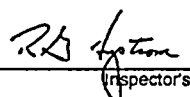
Certificate of Authorization No. N/A Expiration Date N/A

Signed  ENGR Date 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-12-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 Az 264 "A, N, I, C"
National Board, State, Province, and Endorsements

Date 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page of

1. Component ID 1JEWALV0091
- 2.. Item Description: Essential Chill Water System Surge Tank "A" Level Makeup Valve.
3. N-5 Data Package Number: 1EW01-4 4. W.O. Number: 2669295
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Remove and replace body to bonnet tack weld to perform internal rework.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
No failure in the ASME boundry.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial REO Date 5/25/04 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial REO Date 5/25/04 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial REO Date 5/25/04 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial REO Date 5/25/04 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
MAIN DISC	200931-1 / 45020497	27A		2669295
				877738-0004

18. Planner G. Osmundson 5/25/04 Printed Name: G. Osmundson
Signature Date

19. ISI R. P. Indap 5/25/04 Printed Name: R. P. INDAP
Signature Date

20. ANII R. G. Hoxstrom 5-27-04 Printed Name: R. G. Hoxstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 05/25/2004

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2669295

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: 1EW01-4

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Tack Weld	Target Rock	N/A	N/A	1JEWALV091	2004	Replacement	NO
Main Disc	Target Rock	27A	N/A	N/A	2004	Replacement	NO

7. Description of Work: Remove and replace the body to bonnet tack weld.

RPT 7/13/04

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ ~~Nominal Operating Pressure~~ ☒ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2669295 remove and replace body to bonnet tack to rework valve internals (Target Rock vlv, s/n 1, built 1978).

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: R. Prindap, Consulting Metallurgical Engineer Date: 7/13/04
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 5-25 to 7-13, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's report. Furthermore, neither the Inspector nor his employer shall be 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: NB 12050 "N" "I" AZ 420
NB 9685 "N" "I" AZ 264 JK
National Board, State, Province, and Endorsements

Date: _____

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01A 2. Code Class ASME Section III, Class 1
3. Item Description Replacement Steam Generator #1 / SN# 224
4. N-5 Package Number 1RC01-4 5. W.O. Number 2669359
6. Original Construction Code Edition 1971 Edition, Winter 1973 Addenda
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Install CE roll plugs in 1MRCEE01A, "Hot Leg" tubes per DFWO# 2669350 evaluation/disposition
9. ☒ ISI Flaw NDE Method of Flaw Detection ECT
Report Number Replacement Steam Generator Baseline Report
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
Evaluation Per Engineering DFWO# 2669350
11. Repair/Replacement Work Organization Arizona Public Service/Westinghouse
12. Replacement Item Construction or reconciled Code/Edition ASME Section III, 1989 Edition, No Addenda
13. Repair/Replacement Activity Construction Code/Edition ASME Section III, 1989 Edition, No Addenda
14. ASME Section XI Code/Edition 1992 Edition and 1992 Addenda

15. Preservice Inspection Required. ☐ YES ☒ NO
SE 10-6-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date

16. ASME Section XI Pressure Test Required ☐ YES ☒ NO
SE 10-6-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date

SE 10-6-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date

SE 10-6-05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.
Tube Plugs	See Attached List	See Attached List	See Attached List	See Attached List

19. Planner Steven R Eich 10-6-05 Print Name Steven R. Eich
Signature Date

20. ISI Engineer D.B. Hansen 10-6-05 Print Name D.B. Hansen
Signature Date 10/6/05 DBH

21. ANII R.G. HOGSTROM 10-6-05 Print Name R.G. HOGSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/30/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034
Address

Sheet 1 of 3

2. Plant Palo Verde Nuclear Generating Station
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529
Address

Unit 1

2669359
Work Order Number

3. Work Performed by Westinghouse
Name

Type Code Symbol Stamp None

Authorization No. N/A

911 W Main St Chattanooga, TN 37402
Address

Expiration Date N/A

4. Identification of System Reactor Coolant (SG #1)

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	173	1MRCEE01A	2005	Replacement	Yes
Tube Plugs	Westinghouse	NA	NA	Tube Plugs	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐

Pressure _____ psi

Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Plug the replacement steam generator 1MRCEE01A hot leg tubes per Engineering DFWO
2669350 and DIWO 2669359. In addition, tubes R15C66 and R67C186 hot leg was hydraulically
expanded

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules
of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed D. J. L. ENGR Date 11-30-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-6-05 to 11-30-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

William E. Miller Commissions VA 558 "R"
Inspector's Signature National Board, State, Province, and Endorsements

Date 11/30/05

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/30/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 3 of 3
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2669359
Address Work Order Number

3. Work Performed by Westinghouse Type Code Symbol Stamp None.
Name
911 W Main St Chattanooga, TN 37402 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System Reactor Coolant (SG #1)

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

DFWO 2669350 and DIWO 2669359

Replacement Steam Generator (1MRCEE01A-SN224) Hot Leg, had mechanical plugs (part # 0307-1601) obtained via MRs -733382 and 1024616 installed in the following locations:

Row	Col	Row	Col	Row	Col
14	75	45	100	23	126
17	76	46	101	22	127
22	77	46	103	17	128
23	78	45	104	14	129
26	79	46	105	1	196
29	80	45	106	1	200
30	81	46	107		
33	82	45	108		
34	83	44	109		
35	84	45	110		
36	85	44	111		
37	86	43	112		
38	87	42	113		
39	88	41	114		
40	89	40	115		
41	90	39	116		
42	91	38	117		
43	92	37	118		
44	93	36	119		
45	94	35	120		
44	95	34	121		
45	96	33	122		
46	97	30	123		
45	98	29	124		
46	99	26	125		

All plugs were from heat NX3171HK.

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01A 2. Code Class ASME Section III, Class 1
3. Item Description Replacement Steam Generator #1 / SN# 224
4. N-5 Package Number 1RC01-4 5. W.O. Number 2669359
6. Original Construction Code Edition 1971 Edition, Winter 1973 Addenda
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Perform hydraulic tube expansion in 1MRCEE01A, "Hot Leg" tube(s) per DFWO# 2669350 evaluation/disposition
9. ☒ ISI Flaw NDE Method of Flaw Detection ECT
Report Number Replacement Steam Generator Baseline Report
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
Evaluation Per Engineering DFWO# 2669350
11. Repair/Replacement Work Organization Arizona Public Service/Ansaldo
12. Replacement Item Construction or reconciled Code/Edition ASME Section III, 1989 Edition, No Addenda
13. Repair/Replacement Activity Construction Code/Edition ASME Section III, 1989 Edition, No Addenda
14. ASME Section XI Code/Edition 1992 Edition and 1992 Addenda

15. Preservice Inspection Required. ☐ YES ☒ NO
SE 10-21-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date

3. ASME Section XI Pressure Test Required ☐ YES ☒ NO
SE 10-21-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date

SE 10-21-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date

SE 10-21-05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.

19. Planner Steven Eich 10-21-05 Print Name Steven R. Eich
Signature Date

20. ISI Engineer DBH 10-21-05 Print Name D.B. Horner
Signature Date Layco

21. ANII DKC 10-21-05 Print Name DKC
Signature Date

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01B 2. Code Class ASME Section III, Class 1
3. Item Description Replacement Steam Generator #2 / SN# 225
4. N-5 Package Number 1RC01-4 5. W.O. Number 2669364
6. Original Construction Code Edition 1971 Edition, Winter 1973 Addenda
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Install CE roll plugs in 1MRCEE01B, "Hot Leg" tubes per DFWO# 2669362 evaluation/ disposition
9. ☒ ISI Flaw NDE Method of Flaw Detection ECT
Report Number Replacement Steam Generator Baseline Report
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
Evaluation Per Engineering DFWO# 2669362
11. Repair/Replacement Work Organization Arizona Public Service/Westinghouse
12. Replacement Item Construction or reconciled Code/Edition ASME Section III, 1989 Edition, No Addenda
13. Repair/Replacement Activity Construction Code/Edition ASME Section III, 1989 Edition, No Addenda
14. ASME Section XI Code/Edition 1992 Edition and 1992 Addenda
15. Preservice Inspection Required. ☐ YES ☒ NO
SE 10-6-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date

16. ASME Section XI Pressure Test Required ☐ YES ☒ NO
SE 10-6-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date
- SE 10-6-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date
- SE 10-6-05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.
Tube Plugs	See Attached List	See Attached List	See Attached List	See Attached List

19. Planner Steven R. Eich 10-6-05 Print Name Steven R. Eich
Signature Date

20. ISI Engineer D.B. Hansen 10-6-05 Print Name D.B. Hansen
Signature Date
Logged DSH 10-6-05

21. ANII R.G. Hoagstrom 10-6-05 Print Name R.G. Hoagstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/30/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 3
Address
2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2669364
Address Work Order Number
3. Work Performed by Westinghouse Type Code Symbol Stamp None
Name
911 W Main St Chattanooga, TN 37402 Authorization No. N/A
Address Expiration Date N/A
4. Identification of System Reactor Coolant (SG #2)
5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	225	174	1MRCEE01B	2005	Replacement	Yes
Tube Plugs	Westinghouse	NA	NA	Tube Plugs	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐
 Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Plug the replacement steam generator 1MRCEE01B hot leg tubes per Engineering DEWO
2669362 and DIWO 2669364

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DIW ENGR Date 11-30-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-6-05 to 11-30-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

William E. Allen Commissions VA SSS 'R'
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-30-05

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/30/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 3 of 3
Address
2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2669364
Address Work Order Number
3. Work Performed by Westinghouse Type Code Symbol Stamp None
Name
911 W Main St Chattanooga, TN 37402 Authorization No. N/A
Address Expiration Date N/A
4. Identification of System Reactor Coolant (SG #2)
5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

DFWO 2669362 and DIWO 2669364

Replacement Steam Generator (1MRCEE01B-SN225) Hot Leg, had mechanical plugs (part # 0307-1601) obtained via MRs -733382 and 1024616 installed in the following locations:

Row	Col	Row	Col	Row	Col
14	75	45	100	26	125
17	76	46	101	23	126
22	77	46	103	22	127
23	78	45	104	17	128
26	79	46	105	14	129
29	80	45	106	93	150
30	81	46	107		
33	82	45	108		
34	83	44	109		
35	84	45	110		
36	85	44	111		
37	86	43	112		
38	87	42	113		
39	88	41	114		
40	89	40	115		
41	90	39	116		
42	91	38	117		
43	92	37	118		
44	93	36	119		
45	94	35	120		
44	95	34	121		
45	96	33	122		
46	97	30	123		
45	98	29	124		
46	99				

All plugs were from heat NX3171HK.

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01A 2. Code Class ASME Section III, Class I
 3. Item Description Replacement Steam Generator #1 / SN# 224
 4. N-5 Package Number 1RC01-4 5. W.O. Number 2669369
 6. Original Construction Code Edition 1971 Edition, Winter 1973 Addenda
 7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
 8. Work Description Install CE roll plugs in 1MRCEE01A, "Cold Leg" tubes per DFWO# 2669368 evaluation/disposition

9. ☒ ISI Flaw NDE Method of Flaw Detection ECT
 Report Number Replacement Steam Generator Baseline Report

10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
Evaluation Per Engineering DFWO# 2669368

11. Repair/Replacement Work Organization Arizona Public Service/Westinghouse
 12. Replacement Item Construction or reconciled Code/Edition ASME Section III, 1989 Edition, No Addenda
 13. Repair/Replacement Activity Construction Code/Edition ASME Section III, 1989 Edition, No Addenda
 14. ASME Section XI Code/Edition 1992 Edition and 1992 Addenda

15. Preservice Inspection Required. ☐ YES ☒ NO
SE 10-6-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date

16. ASME Section XI Pressure Test Required ☐ YES ☒ NO
SE 10-6-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date

SE 10-6-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date

SE 10-6-05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.
Tube Plugs	See Attached List	See Attached List	See Attached List	See Attached List

19. Planner Steven R. Eich 10-6-05 Print Name Steven R. Eich
Signature Date

20. ISI Engineer D.B. Hansen 10-6-05 Print Name D.B. Hansen
Signature Date 2012 DOH 1060

21. ANII R.G. HOGSTROM 10-6-05 Print Name R.G. HOGSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/30/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 3
Address
2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2669369
Address Work Order Number
3. Work Performed by Westinghouse Type Code Symbol Stamp None
Name
911 W Main St Chattanooga, TN 37402 Authorization No. N/A
Address Expiration Date N/A
4. Identification of System Reactor Coolant (SG #1)
5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda
6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	173	1MRCEE01A	2005	Replacement	Yes
Tube Plugs	Westinghouse	NA	NA	Tube Plugs	NA	Replacement	No

7. Description of Work See remarks on sheet 2
8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐
 Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Plug the replacement steam generator 1MRCEE01A cold leg tubes per Engineering DEWO
2669368 and DIWO 2669369
- _____
- _____
- _____
- _____
- _____

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed 7 1721 ENGR Date 11-30-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-6-05 to 11-30-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

William E. Allen Commissions VA.558 "R"
Inspector's Signature National Board, State, Province, and Endorsements

Date 11/30/05

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/30/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 3 of 3
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2669369
Address Work Order Number

3. Work Performed by Westinghouse Type Code Symbol Stamp None
Name

Authorization No. N/A

911 W Main St Chattanooga, TN 37402 Expiration Date N/A
Address

4. Identification of System Reactor Coolant (SG #1)

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Replacement Steam Generator (1MRCEE01A-SN224) Cold Leg, had mechanical plugs (part # 0307-1601) obtained via MRs -733382 and 1024616 installed in the following locations:

Row	Col	Row	Col	Row	Col
14	75	46	101	22	127
17	76	46	103	17	128
22	77	45	104	14	129
23	78	46	105	1	196
26	79	45	106	1	200
29	80	46	107		
30	81	45	108		
33	82	44	109		
34	83	45	110		
35	84	44	111		
36	85	43	112		
37	86	42	113		
38	87	41	114		
39	88	40	115		
40	89	39	116		
41	90	38	117		
42	91	37	118		
43	92	36	119		
44	93	35	120		
45	94	34	121		
44	95	33	122		
45	96	30	123		
46	97	29	124		
45	98	26	125		
46	99	23	126		
45	100				

All plugs were from heat NX3171HK.

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01B 2. Code Class ASME Section III, Class I
3. Item Description Replacement Steam Generator #2 / SN# 225
4. N-5 Package Number 1RC01-4 5. W.O. Number 2669375
6. Original Construction Code Edition 1971 Edition, Winter 1973 Addenda
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Install CE roll plugs in 1MRCEE01B, "Cold Leg" tubes per DFWO# 2669372 evaluation/ disposition
9. ☒ ISI Flaw NDE Method of Flaw Detection ECT
Report Number Replacement Steam Generator Baseline Report
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
Evaluation Per Engineering DFWO# 2669372

11. Repair/Replacement Work Organization Arizona Public Service/Westinghouse
12. Replacement Item Construction or reconciled Code/Edition ASME Section III, 1989 Edition, No Addenda
13. Repair/Replacement Activity Construction Code/Edition ASME Section III, 1989 Edition, No Addenda
14. ASME Section XI Code/Edition 1992 Edition and 1992 Addenda

15. Preservice Inspection Required. ☐ YES ☒ NO
SE 10-6-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date

16. ASME Section XI Pressure Test Required ☐ YES ☒ NO
SE 10-6-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date

- SE 10-6-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date
- SE 10-6-05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.
Tube Plugs	See Attached List	See Attached List	See Attached List	See Attached List

19. Planner Steven R. Eich 10-6-05 Print Name Steven R. Eich
Signature Date

20. ISI Engineer D.O. Hansen 10-6-05 Print Name D.O. Hansen
Signature Date Logged D.O.H 10-6-05

21. ANII R.G. Hogstrom 10-6-05 Print Name R.G. Hogstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/30/05

P.O. Box 53999, Phoenix, Arizona 85072-2034

Sheet 1 of 3

2. Plant Palo Verde Nuclear Generating Station

Unit 1

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529

2669375

Address

Work Order Number

3. Work Performed by Westinghouse

Type Code Symbol Stamp None

Name

Authorization No. N/A

911 W Main St Chattanooga, TN 37402

Expiration Date N/A

Address

4. Identification of System Reactor Coolant (SG #2)

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	225	174	1MRCEE01B	2005	Replacement	Yes
Tube Plugs	Westinghouse	NA	NA	Tube Plugs	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐

Pressure _____ psi

Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Plug the replacement steam generator 1MRCEE01B cold leg tubes per Engineering DEWO
2669372 and DIWO 2669375
- _____
- _____
- _____
- _____

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed D. J. H. ENGR Date 11-30-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-6-05 to 11-30-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

William E. Fisher Commissions VA 558' R"
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-30-05

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/30/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 3 of 3
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2669375
Address Work Order Number

3. Work Performed by Westinghouse Type Code Symbol Stamp None
Name
911 W Main St Chattanooga, TN 37402 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System Reactor Coolant (SG #2)

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

DFWO 2669372 and DIWO 2669375

Replacement Steam Generator (1MRCEE01B-SN225) Cold Leg, had mechanical plugs (part # 0307-1601) obtained via MRs -733382 and 1024616 installed in the following locations:

Row	Col	Row	Col	Row	Col
14	75	45	100	26	125
17	76	46	101	23	126
22	77	46	103	22	127
23	78	45	104	17	128
26	79	46	105	14	129
29	80	45	106	93	150
30	81	46	107		
33	82	45	108		
34	83	44	109		
35	84	45	110		
36	85	44	111		
37	86	43	112		
38	87	42	113		
39	88	41	114		
40	89	40	115		
41	90	39	116		
42	91	38	117		
43	92	37	118		
44	93	36	119		
45	94	35	120		
44	95	34	121		
45	96	33	122		
46	97	30	123		
45	98	29	124		
46	99				

All plugs were from heat NX3171HK.

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 2

1. Component ID 1PCHBV331
- 2.. Item Description: 2" - 1665# Lift Check valve
3. N-5 Data Package Number: 1CH04-1
4. W.O. Number: 2681939
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Remove seal weld to allow for rework of check valve to correct seat leakage.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
No failure of the ASME Section III boundary. Need to remove and restore seal weld to inspect check valve internals.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DMG Date 5-18-04 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☒ NO
SRPS 5/24/04

Initial DMG Date 5-18-04 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DMG Date 5-18-04 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DMG Date 5-18-04 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Bonnet Seal Weld	N/A	N/A	N/A	N/A

18. Planner David Goodlet 5-18-2004 Printed Name: David Goodlet
Signature Date

19. ISI R. P. JNDAP 5/24/04 Printed Name: R. P. JNDAP
Signature Date

20. ANII R. G. HOGSTROM 5-27-04 Printed Name: R. G. HOGSTROM
Signature Date

ASME SECTION XI – REPAIR / REPLACEMENT

Page 3 of 3

1. Component ID 1PCHBV331
- 2.. Item Description: 2" - 1665# Lift Check valve
3. N-5 Data Package Number: 1CH04-1
4. W.O. Number: 2681939
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Remove seal weld to allow for rework of check valve to correct seat leakage.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
No failure of the ASME Section III boundary. Replacing the bonnet due to the spanner wrench hole used to untread the bonnet is elongated..

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 2, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DMG Date 10-24-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DMG Date 10-24-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DMG Date 10-24-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DMG Date 10-24-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Bonnet	APN 45060008	74	4J59	MR 1030907

18. Planner David Goodlet 10-24-05 Printed Name: David Goodlet
Signature Date

19. ISI Alan Morrow 10/24/05 Printed Name: Alan Morrow
Signature Date

20. ANII R.G. Hogstrom 10-24-05 Printed Name: R.G. HOGSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10-24-2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2681939

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: CH: Chemical and Volumn Control

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Seal Weld	n/a	n/a	n/a	1PCHBV331	2005	Replacement	NO
Bonnet	Borg Warner	74	n/a	1PCHBV331	2005	Replacement	NO
VALVE	BORG WARNER	31765	n/a	1PCHBV331	1978	REPAIRED	YES

7. Description of Work: Disassemble valve to correct seat leakage.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order# 2681939 for check valve 1PCHBV331. The seal weld will be removed and replaced to allow access to valve internals. The bonnet will be replaced due to the elongation of the spanner wrench hole.

Pre-Pressured Test WO Review – ISI Alan Morrow 11/3/05

ANII RS [Signature] 11-3-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Morrow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 5-27-04 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS [Signature]
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

Page 1 of 1

73DP-97Z17 Rev 1

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/01/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2684901

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: CH: Chemical and Volume Control System

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Winter 1975 Addenda, 1540-1 Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	ITT Grinnell	772075197	N/A	1PCHNV649	1977	Existing	YES
Bonnet	ITT Grinnell	8857928-1-3	N/A	1PCHNV649	2005	Replacement	NO

7. Description of Work: Disassembly, inspection and rework to correct worn bonnet bushing (install new bonnet ass'y)

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2684901 for 1PCHNV649. Will install a new bonnet assembly to correct a worn bonnet bushing due to no spare bushings available.

Pre-Pressured Test WO Review – ISI Alan Monow

ANII RL Hyatt 12-1-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 2-24-04 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL Hyatt

Inspectors Signature

Commissions: Az 264 "A,N,I,C"
National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page _____ of _____

1. Component ID 1MCHEX07
2. Code Class ASME Section III Class 2
3. Item Description: Charging pump pulsation dampner
4. N-5 Data Package Number: 1CH04-1
5. W.O. Number: 2685886
6. Original Construction Code Edition: 1977 Edition, Winter 1977 Addenda
7. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
8. Work Description: Weld build-up of scratches or grooves in the bore of the flange block caused during previous disassembly.
9. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
10. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Not a failure of the code pressure boundary.

11. Repair/Replacement Work Organization: Arizona Public Service
12. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1977 Edition, 1977 Winter Addenda
13. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition, 1975 Winter Addenda
14. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
15. Preservice Inspection Required: ☐ YES ☒ NO

Initial DMG Date 5-14-04 If required, include a step in the W.O. to perform Preservice Inspection

16. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial DMG Date 5-14-04 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DMG Date 5-14-04 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DMG Date 5-14-04 18. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1MCHEX07	N/A	6127	N/A	N/A

19. Planner David Goodlet 5-14-04 Printed Name: David Goodlet
Signature Date
20. ISI R. P. Indap 5-18-04 Printed Name: R. P. INDAP
Signature Date
21. ANII R. G. Hogstrom 5-19-04 Printed Name: R. G. HOGSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

05/17/2004

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2685886

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: CH; Charging and volumn control system

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1977 Edition, Winter 1977 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Flange Block	Greer Hydraulics	6127	N/A	1MCHEX07	1980	Repaired	YES

7. Description of Work: Weld build-up of scratches or grooves in the bore of the flange block caused during previous disassembly.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2685886 for pulsation dampener. Weld repair to scratches or grooves in flange block caused during previous disassembly.

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A _____

Certificate of Authorization No. _____ N/A _____ Expiration Date: _____ N/A _____

Signed: [Signature] _____ Date: 8/27/04 _____
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 5-19-04 to 8-27-04, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's report. Furthermore, neither the Inspector nor his employer shall be 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]
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 8-27-04

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JSGHBV0185
- 2.. Item Description: 12"-900# CCI Atmospheric Dump Valve
3. N-5 Data Package Number: 1SG02-1
4. W.O. Number: 2707332
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Disassemble valve and recondition to correct seat leakage.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Not a failure of the ASME III pressure boundary. Plug is being replaced to expedite work completion

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 2, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☐ YES ☒ NO

Initial Dmg Date 11-10-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial Dmg Date 11-10-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial Dmg Date 11-10-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial Dmg Date 11-10-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Valve	N/a	21408-1-3	N/A	N/A
Plug	APN 43550858	600040	N/A	MR 972782

18. Planner David Goodlet 11-10-05 Printed Name: David Goodlet
Signature Date
19. ISI Wiley Ahlstrom 11-11-05 Printed Name: WILEY AHLSTROM Entry
Signature Date
20. ANII William E Huber 11-11-05 Printed Name: WILLIAM E HUBER
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/10/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2707332

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SG: Main Steam

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	B&W	21408-1-3	N/A	1JSGBH0185	1980	Repaired	YES
Plug	Control Components Inc.	600040	N/A	1JSGBH0185	2004	Replacement	YES

7. Description of Work: Disassembled and reconditioned valve to correct seat leakage.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order# 2707332 disassembled valve 1JSGBHV0185 to correct seat leakage. The replacement stem/plug assembly was installed to expedite work completion. The removed plug will be reworked later and saved as a spare.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 11/28/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 11-11-05 to 11-29-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS fptm
Inspectors Signature

Commissions: Az 264
National Board, State, Province, and Endorsements

Date: 11-29-05

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

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

Pg. 1 of 2

1. Manufactured and certified by Control Components Inc. 22591 Avenida Empresa, Rancho Santa Margarita, CA 92688
(name and address of Certificate Holder)
2. Manufactured for ARIZONA PUBLIC SERVICE COMPANY, PHOENIX, AZ
(name and address of purchaser)
3. Location of Installation PALO VERDE NUCLEAR GENERATING STATION, WINTERSBURG, AZ
(name and address)
4. Type 320601240 SA182-F11 70 KSI N/A 2004
(drawing no.) (mat'l spec. no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1974 WINTER 1975 2 N/A
(edition) (addenda date) (class) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks
PLUG FOR 12", 900# ATMOSPHERIC DUMP VALVE
CCI PROJECT ORDER 107810, CCI SFC 600040
8. Nom. thickness (in.) 3.25" Min. design thickness 3.25" Dia. ID (ft & in.) N/A Length overall (ft & in.) 16.3"
9. When applicable, Certificate Holders' Data Reports are attached for each item of the this report:

Part or Appurtenance Serial Number	National Board No. In Numerical Order
(1.) <u>600040</u>	<u>N/A</u>
(2.)	
(3.)	
(4.)	
(5.)	
(6.)	
(7.)	
(8.)	
(9.)	
(10.)	
(11.)	
(12.)	
(13.)	
(14.)	
(15.)	
(16.)	
(17.)	
(18.)	
(19.)	
(20.)	
(21.)	
(22.)	
(23.)	
(24.)	
(25.)	

Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26.)	
(27.)	
(28.)	
(29.)	
(30.)	
(31.)	
(32.)	
(33.)	
(34.)	
(35.)	
(36.)	
(37.)	
(38.)	
(39.)	
(40.)	
(41.)	
(42.)	
(43.)	
(44.)	
(45.)	
(46.)	
(47.)	
(48.)	
(49.)	
(50.)	

10. Design pressure 1333 psi Temp. 575 Deg. F Hydro test pressure N/A at temp. Deg. f

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

Form N-2

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

Certificate Holder's Serial No. 600040 through N/A

CERTIFICATE OF DESIGN

Design Specification certified by ADA I. PRESSMAN P.E. State AZ Reg. no. 10409
Design Report * certified by N/A P.E. State N/A Reg. no. N/A
(when applicable)

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-2696 ** Expires AUGUST 14, 2006

Date 01-FEB-05 Name Control Components Inc. (CCI) Signed [Signature]
(NPT Certificate Holder) (Authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by H S B C T of HARTFORD, CONNECTICUT have inspected these items described in this Data Report on 2-1-2005, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with ASME Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the Inspector nor his employer makes 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 2/1/2005 Signed [Signature] Commissions A1494
(Authorized Inspector) (Nat'l Bd. (including endorsement) and state or prov., and no.)

Page 1 of 1

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/21/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2710630

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SF Reactor Control System

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Control Element Drive Mechanism	Combustion Engineering	474	N/A	MR 1029606	N/A	Replaced	YES

7. Description of Work: Replace Control Element Drive Mechanism number 89

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order 2710630. Replaced Control Element Drive Mechanism number 89.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISD Engineer Date: 11/29/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 11-25-05 to 12-1-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL Horton

Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 12-1-05

Page 1 of 1

14. Preservice Inspection Required: ☐ YES ☒ NO
Initial KOS Date 9/20/05 If required, include a step in the W.O. to perform Preservice Inspection
15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO
Initial KOS Date 9/20/05 If required, include a step in the W.O. for ISI & ANII Inspection.
- Initial KOS Date 9/20/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
- Initial KOS Date 9/20/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1JRCEPSV0200	N/A	BS08614	N/A	N/A
1/2" Pipe Cap	APN 43550865	N/A	HUV	MR 1020354
1JRCEPSV0201	N/A	BS08565	N/A	N/A
1/2" Pipe Cap	APN 43550865	N/A	HUV	MR 1020354
1JRCEPSV0202	N/A	BS08616	N/A	N/A
1/2" Pipe Cap	APN 43550865	N/A	HUV	MR 1020354

18. Planner Karl V. Savage 9/28/05
Signature Date Printed Name: Karl V. Savage
19. ISI R.P. Indap 9/28/05
Signature Date Printed Name: R.P. Indap Log Entry - RPI
20. ANII R.G. Hougstrom 9-28-05
Signature Date Printed Name: R.G. Hougstrom

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 09/23/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 1

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2710975

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: RC Reactor Coolant

5. (a) Applicable Construction Code ASME Section III, Div 1 Class I 1974 Edition, S'75 Addenda, 1711 Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Pressurizer PSV	Dresser	BS08614	N/A	1JRCEPSV0200	1979	Repaired	YES
Pressurizer PSV	Dresser	BS08565	N/A	1JRCEPSV0201	1978	Repaired	YES
Pressurizer PSV	Dresser	BS08616	N/A	1JRCEPSV0202	1979	Repaired	YES

7. Description of Work: Cut Off Capped Leak Off Lines and Installed New Caps on the shortened Leak Off Lines.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order 2710975. Cut Off Capped Leak Off Lines and Installed New Caps on the Shortened Leak Off Lines.

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A

Certificate of Authorization No. _____ N/A Expiration Date: _____ N/A

Signed: Alan Monow ISI Engineer Date: 12/9/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 9-28-05 to 12-15-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS [Signature]
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 12-15-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEX01
- 2.. Item Description: Reactor Head Vent Orifice
3. N-5 Data Package Number: 1RC01-4 4. W.O. Number: 2717777
5. Original Construction Code Edition: 1971 Edition, Winter 1973 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Relocate the Reactor Head Vent Orifice
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:

The Reactor head vent line orifice is being removed from flush with the vessel head and a new orifice is being fabricated and installed downstream of valve 1PRCEV212 per the DMWO. The head vent piping is being upgraded from ASME Class 2 to ASME Class 1. This will allow for NDE of the head vent nozzle to comply with NRC Order EA03-009. There was no failure of the Code boundary.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1971 Edition 1973 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial KVS ^{N/A} Date 2/23/2005 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial KVS ^{N/A} Date 2/23/2005 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial KVS Date 2/23/2005 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial KVS Date 2/23/2005 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Round Stock, SA479 TP316	APN 43640489		U7052	1041925 515568-2004/15 MR 893055 2/23/05
Stud All Thread ^{SA564 GR630}	APN 4311-5013		M284	949828 MR 892320 2/23/05
Mtr, 049, SA564 GR630	APN 4312-1315		A43568	949828 MR 892320 2/23/05

18. Planner Karl V. Savage ^{Signature} 2/23/2005 ^{Date} Printed Name: Karl V. Savage

19. ISI R. P. Indap ^{Signature} 3/16/05 ^{Date} Printed Name: R. P. INDAP Log Entry RPI

20. ANII R. G. Huestrom ^{Signature} 3-16-05 ^{Date} Printed Name: R. G. HUESTROM

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 02/23/2004

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2717777

3. Work Performed by: Arizona Public Service Co.

Type of Code Stamp None

5801 S. Wintersburg Rd., Tonopah, Arizona, 85354-7529

Authorization No. N/A

Expiration Date N/A

4. Identification of System: RC - Reactor Coolant

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Orifice	N/A	N/A	N/A	MR 1041992	N/A	Replacement	NO
Stud (all thread)	N/A	N/A	N/A	MR 949828	N/A	Replacement	NO
Nuts	N/A	N/A	N/A	MR 949828	N/A	Replacement	NO

7. Description of Work: Relocate the head vent orifice and upgrade the vent piping from Class 2 to Class 1.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-2 ☐

Other ☐

Pressure psi

Test Temperature °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order 2717777. Relocated the Reactor Vessel Head vent orifice from flush with the inside surface of the head to the flange downstream of 1PRCEV212. This modification also upgraded the piping between the head and the new orifice from ASME Class 2 to Class 1.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/5/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 3-16-05 to 12-5-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RD

Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 12-5-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JSGEUV0171
- 2.. Item Description: Anchor Darling 24"-900# Double Disc Main Steam Isolation Valve
3. N-5 Data Package Number: 1SG02-1
4. W.O. Number: 2717849
5. Original Construction Code Edition: 1977 Edition, Summer 1977 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Disassemble valve to restore from furmanite sealing. Normally some or all the bonnet studs and nuts will be replaced due to the difficulty in disassembly with this leak seal compound. Temporary tack welds will be added to the interior of the body to facilitate machining operations.
8. ☒ ISI Flaw NDE Method of Flaw Detection: Ultrasonic Exam
Report Number: UT-05-128
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:

Not a failure of the ASME pressure boundary. The bonnet bolts with ISI Ultrasonic indication are being removed for investigation

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1977 Edition 1977 Summer Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial [Signature] Date 11/10/05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☒ NO

Initial [Signature] Date 11/10/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial [Signature] Date 11/10/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial [Signature] Date 11/10/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Bonnet studs	APN 43160414	N/A	A10FBBN	MR 1033178 ²³⁹⁷⁹⁴
Bonnet nuts	APN 49991284	N/A	TC-DO	MR 1033178

18. Planner [Signature] 11-10-05 Printed Name: Glenn E. Moore

19. ISI [Signature] 11-10-05 Printed Name: R.L. Brownink Log Entry RLB

20. ANII [Signature] 11-10-05 Printed Name: RG HOGSTROM

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12/14/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2717849

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SG: Main Steam System

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1977 Edition, Summer 1977 Addenda, 1677 & 1774-1
Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Anchor Darling	E-9023-1-3	N/A	1JSGEUV0171	1979	Repaired	YES
Bonnet Studs	N/A	N/A	N/A	1JSGEUV0171	2005	Replacement	NO
Bonnet Nuts	N/A	N/A	N/A	1JSGEUV0171	2005	Replacement	NO

7. Description of Work: Disassemble valve and restore from Furmanite sealing and tack weld in temporary tacks inside the body to facilitate machining operation.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt XX

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

Remarks: Work Order# 2717849 for valve 1JSGEUV0171 will disassemble to restore from Furmanite leak sealing. The disassembly usually damages the bonnet studs and nuts, all 20 will be replaced. Temporary tacks will be added to the interior of the valv body to facilitate machining operations.

Pre-Pressured Test WO Review – ISI N/A

ANII _____

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: *[Signature]* SR. FSE ENGINEER Date: 12/15/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 11-10-05 to 12-15-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's report. Furthermore, neither the Inspector nor his employer shall be 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]
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 12-15-05

FORM N-5 DATA REPORT FOR FIELD INSTALLATION OF NUCLEAR POWER PLANT
COMPONENTS, COMPONENT SUPPORTS AND APPURTENANCES (SUPPLEMENT)

(As required by the Provisions of the ASME Code Rules, Section III, Division 1)

Installed by: Bechtel Power Corporation, Palo Verde, Ariz.

Installed for: Arizona Nuclear Power Project, Palo Verde, Ariz.

Location of Installation: Palo Verde Nuclear Generating Station, Unit 1

National Board No.: N/A

Code Class: 1 (2) 3

N-5 PACKAGE NO.: 1SG02-1

PAGE 6 OF 56

NUCLEAR COMPONENTS AND APPURTENANCES INSTALLED IN THE FIELD BY WELDING:

<u>COMPONENTS OR APPURTENANCES</u>	<u>NAME OF MANUFACTURER</u>	<u>LINE NO.</u>	<u>SERIAL NO.</u>	<u>YEAR BUILT</u>
1PSGEV084	Anchor Darling	1SG100	E6374184	1980
1JSGEUV0183	Anchor Darling	1SG100	E6374421	1980
1PSGAV298	Dresser	1SG103	H266AAH	1979
1PSGEV311	Dresser	1SG103	H568AAE	1978
1JSGAHV179	Babcock & Wilcox	1SG103	2140814	1980
1JSGBUV0226	Valcor	1SG181	10 (V52656835)	1980
1JSGAUV0227	Valcor	1SG181	11 (V52656835)	1980
1PSGEV377	Dresser	1SG181	H265AAL	1980
1PSGEV378	Dresser	1SG181	JAC1114	1981
GEV382	Dresser	1SG181	H807AAW	1981
1PSGEV428	Dresser	1SG181	H809AAW	1981
1JSGBUV1136A	Target Rock	1SG196	17 (76HH-008)	1981
1PSGEV139	Dresser	1SG196	H252AAH	1979
1JSGBUV1136B	Target Rock	1SG198	18 (76HH-008)	1981
1PSGEV145	Dresser	1SG198	H310AAF	1978
1PSGEV140	Kerotest	1SG208	F7G133	1981
1JSGEUV0171	Anchor Darling	1SG208	E902313	1979
1JSGEUV0181	Anchor Darling	1SG209	E902314	1979
1PSGEV146	Dresser	1SG209	H572AAE	1978
1PSGEV444	Dresser	1SG362	H561AAE	1978
1PSGEV445	Dresser	1SG362	H582AAE	1978

SUPPLEMENTAL TO THE N-5 PACKAGE

FORM NPV-1 N CERTIFICATE HOLDER DATA REPORT FOR NUCLEAR PUMPS VALVES

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

Manufactured by Anchor/Darline Valve Co., 701 First St., Williamsport, PA 17701

Used for Arizona Public Service Co., Phoenix, AZ 85036

Location of Installation Dale Verde Nuclear Generating Station, Wintersburg, AZ

Port or Valve E-9023-1 Valve Nominal Port Size 28 Outlet Size 28
(Inch) (Inch)

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

Series No. or Type	Serial No.	Registration No.	Dr. Drawing No.	Pressure Class	Fl. Nat'l Std. No.	Year Built
-----------------------	---------------	---------------------	--------------------	----------------	-----------------------	---------------

D.D. GATE	E-9023-1-4	N/A	93-15165 R/D	2	N/A	1979
-----------	------------	-----	--------------	---	-----	------

CUSTOMER TAG. # 1-J-EG-E-UV-181

Reference to find

unable to find MSN 11/12/05

24" 900# DOUBLE DISC MAINSTEAM ISOLATION VALVE

(Brief description of service for which equipment was designed)

In Conditions 1640 PSI 575 F. or Valve Pressure Class N/A

Working Pressure 2160 PSI at 100°F

ature Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
----------	--------------------	--------------	---------

Castings

BODY	SA216-WCC	NEWPORT NEWS INDUSTRIES
------	-----------	-------------------------

HT. # 52460-2

S/N 4125895

DISKET	SA216-WCC	NEWPORT NEWS INDUSTRIES
--------	-----------	-------------------------

HT. # 4495

S/N K1609

Springs

ISC	SA105	CARP & SAUL STEEL
-----	-------	-------------------

HT. # 212151

S/N 14 5 16

Manually operated valves only.

Additional sheets in form of lists, sketches or drawings may be used provided 1. size is 8 1/2 x 11 1/2; 2. information in no 5 on this Data Report is included on each sheet and 3. each sheet is numbered and number of sheets at top of this form.

This form (EC00371) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

9B 13-51

2

3

4

5

6

7

8

9

10

BPC 17 OAC

Mark No.	Material Spec. No.	Manufacturer	Remark
(c) Bolting			
STUDS HT. # 8085668	SA193-87	R.E.C. CORPORATION	
NUTS HT. # 51262	SA194-GR7	NUTS, INCORPORATED	
(d) Other Parts			
N/A			

9. Hydrostatic test 3375 psi. Disk Differential test pressure 2500 psi.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this ~~pressure~~ valve, conforms to the rule construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. I., Edition 1977
Addenda Summer '77 Code Case No. 1677, 1774-1 Date 7-6-79
(Date)

Signed Anchor/Darling Valve Co. by T. F. GREGORY
(In Certificate Holder)
Our ASME Certificate of Authorization No. N1712 to use the N symbol expires 4/15
(Date)

CERTIFICATION OF DESIGN

Design information on file at Anchor/Darling Valve Co., Williamsport, PA 17701
Stress analysis report (Class 1 only) on file at N/A

Design specifications certified by (1) Vasken Najarian
PE State Arizona Reg. No. 10746
Stress analysis certified by (1) N/A
PE State _____ Reg. No. _____

(1) Signature not required. List name only

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Pennsylvania and employed by Commercial Union Ins. Co. of Boston, Mass. have inspected the boiler or valve, described in this Data Report on 12-10-78 thru 7-7-79 and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this boiler 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 Oct 17 - 79 19 79
R. E. MONTGOMERY Commissions Pennsylvania WC972
 (Next Bd., State, Prov. and No.)

ASME SECTION XI - REPAIR / REPLACEMENT

Page of

1. Component ID 1JECALV0015
- 2.. Item Description: ECWS Expansion Tank Level Control Valve
3. N-5 Data Package Number: 1EC01-2 4. W.O. Number: 2722411
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace main disc and seal weld to correct seat leakage.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
No failure of ASME boundry. Trouble shoot and rework seat leakage. Replace bonnet to body seal weld.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial GLE Date 7/21/04 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial GLE Date 7/21/04 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial GLE Date 7/21/04 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial GLE Date 7/21/04 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	(MR)PO/WO No.
<u>4502000498</u>	<u>102175-1TRC</u>	<u>J.G. 8-6-04 SPRING</u>	<u>FR 460</u>	<u>00207288-6</u>
			<u>TR - 460</u>	<u>00889638-1</u>

18. Planner G. Osmundson 7/21/04 Printed Name: G. Osmundson
Signature Date

19. ISI F. Poteet 7/21/04 Printed Name: F. POTEET
Signature Date

20. ANII R.G. Hogstrom 7-21-04 Printed Name: R.G. HOGSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 08/17/04

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 1

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2722411

3. Work Performed by: Arizona Public Service Co.

Type of Code Stamp None

5801 S. Wintersburg Rd., Tonopah, Arizona, 85354-7529

Authorization No. N/A

Expiration Date N/A

4. Identification of System: 1-EC01-2

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Target Rock	1	N/A	1JECALV0015	1978	Repaired	Yes

7. Description of Work: Reworked (lapped) main disc & replaced seal weld to correct seat leakage.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2722411, Reworked (lapped) main disc and replace seal weld to correct seat leakage.

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: PP Indap Consulting Metallurgical Engineer Date: 8/17/04
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 7-21-04 to 8-17-04, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

PP Indap
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 8-17-04

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEP01A
2. Item Description: Reactor Coolant Pump
3. N-5 Data Package Number: 1RC02-4 4. W.O. Number: 2723693
5. Original Construction Code Edition: 1974 Edition
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Mechanical Seal replacement as part of normal maintenance.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
No failure of ASME III pressure boundary. Mechanical seal replacement as part of normal maintenance.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1974 Edition
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☐ YES ☒ NO

Initial BV Date 10/6/05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial BV Date 10/6/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial BV Date 10/6/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial BV Date 10/6/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
3 rd Stage Seal Retainer	1663509	Q95-1869 5/N8	N/A	

18. Planner Barbara Vidal 10/6/05 Printed Name: Barbara Vidal
Signature Date

19. ISI [Signature] 10/19/05 Printed Name: R. P. INDAP Log Entry R.P.
Signature Date

20. ANII [Signature] 10-20-05 Printed Name: R. G. HOUSTON
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 0/6/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2723693

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: RC - Reactor Coolant System

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, _____ Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
3 rd Stage Seal Retainer	Sulzer	<u>Q95-1869 5/N8</u>	N/A	1MRCEP01A	1984	Replacement	YES

7. Description of Work: Mechanical Seal replacement as part of normal maintenance.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2723693 No failure of ASME III pressure boundry. Mechanical seal replacement as part of normal maintenance.

Pre-Pressured Test WO Review - ISI Alan Monow 11/28/05

ANII RS Hyman 11-30-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: WBS Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-20-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS Hyman
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JRCEPSV0200
- 2.. Item Description: Pressurizer Safety Relief Valve
3. N-5 Data Package Number: 1RC03-2
4. W.O. Number: 2723764
5. Original Construction Code Edition: 1974 Edition, Summer 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace the Pressurizer Safety Valve with a reconditioned spare.
8. ☐ ISI Flaw
NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
No failure of ASME III pressure boundry. Spare valve is a like for like replacment and is being replaced to support vendor testing. The replacement valve serial # is BS-08615.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec.III CI 1, 1974 Edition 1975 Summer Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial SRB_ Date 10/05/2005 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial SRB_ Date 10/05/2005 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial SRB_ Date 10/05/2005 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial SRB_ Date 10/05/2005 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1JRCEPSV0200	N/A	BS-08615	N/A	PO 500289046

18. Planner *Scott R. Baize* 10/19/2005 Printed Name: Scott R. Baize
Signature Date

19. ISI *R.P. Indap* 10/17/05 Printed Name: R.P. INDAP Log Entry PRP
Signature Date

20. ANII *R.G. Holstrom* 10-20-05 Printed Name: R.G. HOLSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/18/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2723764

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: RC-Reactor Coolant system

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Summer 1975 Addenda, 1711 Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
PSV	Dresser	BS-08615	N/A	1JRCEPSV0200	1981	Replacement	YES
PSV	Dresser	BS-08614	N/A	1JRCEPSV0200	1979	Replaced	YES

7. Description of Work: No failure of ASME III pressure boundry. Spare valve is a like for like replacment and is being replaced to support vendor testing.

8: Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2723764, PSV being replaced as part of routine maintenance. (BS-08615)

Pre-Pressured Test WO Review – ISI Alan Monow 12/8/05

ANII RS Horton 12-8-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-20-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS Horton
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. COMPONENT: 1JRCEPSV0201

2.. Item Description: Pressurizer Safety Valves

3. N-5 Data Package Number: 1RC03-2

4. W.O. Number: 2723765

5. Original Construction Code Edition: 1974 Edition, Summer 1975 Addenda

6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda

7. Work Description: Replace the Pressurizer Safety Valve with a reconditioned spare.

8. ☐ ISI Flaw

NDE Method of Flaw Detection:

Report Number:

9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:

No failure of ASME III pressur boundry. Spare valve is a like for like replacment and is being replaced to support vendor testing. The repacment valve serial # is BS-08591

10. Repair/Replacement Work Organization: Arizona Public Service

11. Replacement Items Construction or reconciled Code/Edition: Sec.III CI 1, 1974 Edition 1975 Summer Addenda

12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 1, 1974 Edition 1975 Winter Addenda

13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required:

☐ YES

☒ NO

Initial SRB Date 10/18/2005

If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required:

☒ YES

☐ NO

Initial SRB Date 10/18/2005

If required, include a step in the W.O. for ISI & ANII Inspection.

Initial SRB Date 10/18/2005

16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial SRB Date 10/18/2005

17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1JRCEPSV0201	N/A	BS-08591	N/A	PO# 500289046

18. Planner

Signature

Date

Printed Name: Scott R. Baize

19. ISI

Signature

Date

Printed Name: R.P. INDAP

Log Entry

20. ANII

Signature

Date

Printed Name: R.C. HOGSTROM

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/06/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2723765

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: RC-Reactor Coolant system

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Summer 1975 Addenda, 1711 Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
PSV	Dresser	BS-08591	N/A	1JRCEPSV0201	1979	Replacement	YES
PSV	Dresser	BS-08565	N/A	1JRCEPSV0201	1978	Replaced	YES

7. Description of Work: No failure of ASME III pressure boundry. Spare valve is a like for like replacment and is being replaced to support vendor testing.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2723765, PSV being replaced as part of routine maintenace.(BS 08591)

Pre-Pressured Test WO Review - ISI Alan Morrow 12/8/05

ANII RS Lytton 12-8-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Morrow FSI Engineer Date: 12/24/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-21-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS Lytton
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JRCEPSV0202
- 2.. Item Description: Pressurizer Safety Valve
3. N-5 Data Package Number: 1RC03-2
4. W.O. Number: 2723766
5. Original Construction Code Edition: 1974 Edition, Summer 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace the Pressurizer Safety Valve with a reconditioned spare.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
No failure of ASME III pressure boundry. Spare valve is like for like replacement and is being replaced to support vendor testing. Valve serial # BS-08617

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec.III Cl 1, 1974 Edition 1975 Summer Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial SRB Date 10/18/2005 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial SRB Date 10/18/2005 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial SRB Date 10/18/2005 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial SRB Date 10/18/2005 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1JRCEPSV0202	N/A	BS-08617	N/A	PO# 500289046

18. Planner Scott R. Baize 10/20/2005 Printed Name: Scott R. Baize
Signature Date

19. ISI R.P. Indap 10/21/05 Printed Name: R.P. INDAP Log Entry R.P.
Signature Date

20. ANII R.G. Hogstrom 10-21-05 Printed Name: R.G. HOGSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/18/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2723766

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: RC-Reactor Coolant system

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Summer 1975 Addenda, 1711 Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
PSV	Dresser	BS-08617	N/A	1JRCEPSV0202	1981	Replacement	YES
PSV	Dresser	BS-08616	N/A	1JRCEPSV0202	1979	Replaced	YES

7. Description of Work: No failure of ASME III pressure boundry. Spare valve is a like for like replacment and is being replaced to support vendor testing.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2723766, PSV being replaced as part of routine maintenance. (BS-08617)

Pre-Pressured Test WO Review – ISI Alan Monow 12/8/05

ANII RL Johnson 12-8-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-21-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL Johnson
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JRCEPSV0203
- 2.. Item Description: Pressurizer Safety Valve
3. N-5 Data Package Number: 1RC03-2
4. W.O. Number: 2723767
5. Original Construction Code Edition: 1974 Edition, Summer 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace the Pressurizer Safety Valve with a reconditioned spare.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
No failure of ASME III pressur boundry. Spare valve is a like for like replacment and is being replaced to support vendor testing. The repacment valve serial # is BS-08617

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec.III Cl 1, 1974 Edition 1975 Summer Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial SRB Date 10/18/2005 If required, include a step in the W.O. to perform Preservice Inspection

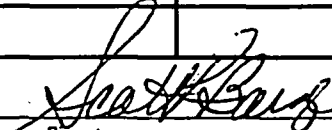
15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO


Initial SRB Date 10/18/2005 If required, include a step in the W.O. for ISI & ANII Inspection.

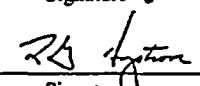
Initial SRB Date 10/18/2005 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial SRB Date 10/18/2005 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1JRCEPSV0203	N/A	BS-08593	N/A	PO# 500289046

18. Planner  10/20/05 Printed Name: Scott R. Baize

19. ISI  10/21/05 Printed Name: R.P. INDAP Log Entry RP2

20. ANII  10-21-05 Printed Name: R.G. HOLSTROM

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/18/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2723767

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: RC-Reactor Coolant system

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Summer 1975 Addenda, 1711 Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
PSV	Dresser	BS-08593	N/A	1JRCEPSV0203	1979	Replacement	YES
PSV	Dresser	BS-08567	N/A	1JRCEPSV0203	1978	Replaced	YES

7. Description of Work: No failure of ASME III pressure boundry. Spare valve is a like for like replacment and is being replaced to support vendor testing.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2723766, PSV being replaced as part of routine maintenance.(BS-08593)

Pre-Pressured Test WO Review - ISI Alan Monow 12/8/05

ANII PS 12-8-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-21-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

PS

Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page _____ of _____

1. Component ID 1MDGAE05
2. Code Class ASME Section III Class 3
3. Item Description: JACKET WATER COOLER
4. N-5 Data Package Number: 1DG01-2
5. W.O. Number: 2723816
6. Original Construction Code Edition: 1974 Edition, Summer 1976 Addenda ~~RPD 11/3/05~~ Winter 1976 Addenda
7. Original Installation Code Edition: 1974 Edition, Summer 1976 Addenda
8. Work Description: REPAIR BASE METAL WITH WELD BUILD UP
9. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
10. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
WELD BUILD UP OF BASE MATERIAL REQUIRED DUE TO EXCEEDING MINIMUM WALL THICKNESS.
REPAIRED AREAS TO BE PROTECTED WITH COATINGS.

11. Repair/Replacement Work Organization: Arizona Public Service
12. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 3, 1974 Edition 1976 Summer Addenda
13. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Winter Addenda
14. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

15. Preservice Inspection Required: ☒ YES ☐ NO

Initial MM Date 10-25-05 If required, include a step in the W.O. to perform Preservice Inspection

16. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial MM Date 10-25-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial MM Date 10-25-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial MM Date 10-25-05 18. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1MDGAE05 INLET PIPE	4-305-19-215-018	9-20016-01-1 RPD		2723816 W.O.#
RPD 11/3/05		11-3-05		RPD 11-3-05

19. Planner Martin J. Sullivan 10-25-05 Printed Name: Martin J. Sullivan
Signature Date

20. ISI Alan Morrow 10/25/05 Printed Name: Alan Morrow
Signature Date

21. ANII William E. Huber 11/25/05 Printed Name: William E. Huber
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11-3-05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2723816

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: DG

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Summer 1976 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
DG Jacket Water Cooler	American Standard	9-20016-01-1	31978	1MDGAE05	1978	Repaired	YES

7. Description of Work: Weld build up of eroded area on the inlet / outlet channel head

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

2. Remarks: Weld build up of eroded area on the inlet outlet spool on the baffle. Area to be coated to protect against corrosion. w.o. 2723816

Pre-Pressured Test WO Review – ISI Alan Monow

ANII _____

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A

Certificate of Authorization No. _____ N/A Expiration Date: _____ N/A

Signed: Alan Monow ISI Engineer Date: 11/3/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-25-05 to 11-3-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL Lytton

Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 11-3-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1MDGBE05 2. Code Class ASME Section III Class 3
3. Item Description: JACKET WATER COOLER
4. N-5 Data Package Number: 1DG02-10 5. W.O. Number: 2723817
6. Original Construction Code Edition: 1974 Edition, Summer 1976 Addenda
7. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
8. Work Description: REPAIR BASE METAL WITH WELD BUILD UP
9. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
10. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
WELD BUILD UP OF BASE MATERIAL REQUIRED DUE TO EXCEEDING MINIMUM WALL THICKNESS.
REPAIRED AREAS TO BE PROTECTED WITH COATINGS.

11. Repair/Replacement Work Organization: Arizona Public Service
12. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 3, 1974 Edition 1976 Summer Addenda
13. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Winter Addenda
14. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

15. Preservice Inspection Required: ☒ YES ☒ NO
on 11/8/05

Initial MJS Date 11-8-05 If required, include a step in the W.O. to perform Preservice Inspection

16. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial MJS Date 11-8-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial MJS Date 11-8-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial MJS Date 11-8-05 18. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1MDGAE05 INLET BAFFLE	4-305-19-215-018			2723817

19. Planner Martin J. Sullivan 11-8-05 Printed Name: Martin J. Sullivan
Signature Date

20. ISI Alan Morrow 11/8/05 Printed Name: Alan Morrow
Signature Date

21. ANII R.G. Hogstrom 11-9-05 Printed Name: R.G. Hogstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/08/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2723817

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: 1MDGBE05

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Summer 1976 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Jacket water cooler	American standard	9-20016-01-3	33116	1MDGBE05	1979	Repaired	YES

7. Description of Work: Weld build up of eroded area on the inlet outlet spool on the baffle. W.O. 2723817

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Weld build up of eroded area on the inlet outlet spool on the baffle. Area to be coated to protect against corrosion. w.o. 2723817

Pre-Pressured Test WO Review – ISI Alex Monow 11/15/05

ANII RS 11-16-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: [Signature] SR. ISE ENGINEER Date: 11/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 11-9-05 to 11-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's report. Furthermore, neither the Inspector nor his employer shall be 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]
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 11-20-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page _____ of _____

1. Component ID 1MDGAE04
2. Code Class ASME Section III Class 3
3. Item Description: LUBE OIL COOLER
4. N-5 Data Package Number: 1DG01-2
5. W.O. Number: 2723821
6. Original Construction Code Edition: 1974 Edition, Summer 1976 Addenda
7. Original Installation Code Edition: 1974 Edition, Summer 1976 Addenda ^{Winter} RPZ 11/3/05
8. Work Description: REPAIR BASE METAL WITH WELD BUILD UP
9. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
10. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
WELD BUILD UP OF BASE MATERIAL REQUIRED DUE TO EXCEEDING MINIMUM WALL THICKNESS.
REPAIRED AREAS TO BE PROTECTED WITH COATINGS.

11. Repair/Replacement Work Organization: Arizona Public Service
12. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 3, 1974 Edition 1976 Summer Addenda
13. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Winter Addenda
14. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

15. Preservice Inspection Required: ☒ YES ☐ NO

Initial MJS Date 10-25-05 If required, include a step in the W.O. to perform Preservice Inspection

16. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial MJS Date 10-25-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial MJS Date 10-25-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial MJS Date 10-25-05 18. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1MDGAE04 INLET	4-305-19-215-019	9-20016-02-1 ^{RPZ} 11-3-05		2723821 W.O.#
				RPZ 11-3-05

19. Planner Martin J. Sullivan 10-25-05 Printed Name: Martin J. Sullivan
Signature Date

20. ISI Alan Morrow 10/25/05 Printed Name: Alan Morrow
Signature Date

21. ANII William Huber 10/25/05 Printed Name: William Huber
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11-3-05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2723821

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: DG

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Summer 1976 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
DG Lube Oil Cooler	American Standard	9-20016-02-1	31980	1MDGAE04	1978	Repaired	YES

7. Description of Work: Weld build up of eroded area on the inlet / outlet channel head

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Weld build up of eroded area on the inlet outlet spool. Area to be coated to protect against corrosion. w.o. 2723821

Pre-Pressured Test WO Review – ISI Alan Monow

ANII _____

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A

Certificate of Authorization No. _____ N/A Expiration Date: _____ N/A

Signed: Alan Monow ISI Engineer Date: 11/3/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-25-05 to 11-3-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 11-3-05

Page 1 of 1

73DP-9ZL17 Rev 9

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/21/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2723838

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SG: Main Steam System

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Summer 1975 Addenda, 1 Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Safety Valve	Dresser	BS-08572	N/A	1JSGEPSV0579	1978	Replacement	YES

7. Description of Work: Replace one main steam safety valve with a reconditioned & tested spare.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2723838 will be used to replace Main Steam Safety Valve 1JSGEPSV0579 during 1R12.

Pre-Pressured Test WO Review – ISI

Alan Monow

11/25/05

ANII

RS Hyman

11-30-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date: N/A

Signed: Alan Monow ISI Engineer
Owner or Owner's Designee, Title

Date: 12/20/05

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-24-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS Hyman

Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264

National Board, State, Province, and Endorsements

Date: 12-20-05

Page 1 of 1

18. Planner *J. I. Davis* 4-25-05 Printed Name: James I. Davis
Signature Date
19. ISI *Alan Morrow* 4/26/05 Printed Name: Alan Morrow Log Entry *am*
Signature Date
20. ANII *R. G. Hogstrom* 4-29-05 Printed Name: R. G. HOGSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12-20-05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2732245

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, 3/1 Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Borg-Warner	26221	610	1PSIEV237	1977	Repaired	YES
Disc	Borg-Warner	1	N/A	2E69	1977	Replaced	YES
Bonnet	Borg-Warner	8	N/A	2E76	1977	Replaced	YES
Disc	Borg-Warner	22	N/A	2X54	1978	Replacement	YES
Bonnet	Borg-Warner	11	N/A	2X59	1978	Replacement	YES

7. Description of Work: Replace the bonnet and disc assembly to correct seat leakage.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work order 2732245 installed the Bonnet, Arm and Disc assembly originally installed in 3PSIEV217, removed by Work Order 2714002 and refurbished by Work Order 2748685

Pre-Pressured Test WO Review – ISI Alan Marow 12/9/05

ANII RS [Signature] 12-9-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: [Signature] ISI ENGINEER Date: 12-20-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 4-29-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's report. Furthermore, neither the Inspector nor his employer shall be 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]
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PSIEV245
- 2.. Item Description: SIT 1B Discharge Check Valve
3. N-5 Data Package Number: 1RC01-1C
4. W.O. Number: 2732251
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace Bonnet, Arm and Disc assembly to correct seat leakage
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Replacement to correct seat leakage. No failure in the ASME boundary.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial N/A J.O Date 4-25-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial J.O Date 4-25-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial J.O Date 4-25-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial J.O Date 4-25-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Bonnet/arm/disc assembly	APN 45060170	Bonnet SN 3 Disc SN 10		REWORK WO 2823579

18. Planner [Signature] Date 4-25-05 Printed Name: James I. Davis

19. ISI [Signature] Date 4/26/05 Printed Name: Alan Morrow Log Entry an

20. ANII [Signature] Date 4-29-05 Printed Name: R.G. Houston

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12/14/05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2732251

3. Work Performed by: Arizona Public Service Co.

Type of Code Stamp None

5801 S. Wintersburg Rd., Tonopah, Arizona, 85354-7529

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Borg-Warner	26221	610	IPSIEV245	1977	Repaired	Yes
Disc	Borg-Warner	2	N/A	2E69	1977	Replaced	Yes
Bonnet	Borg-Warner	5	N/A	2E76	1977	Replaced	Yes
Disc	Borg-Warner	10	N/A	2X42	1978	Replacement	Yes
Bonnet	Borg-Warner	213669-3	N/A	S/N 3	1991	Replacement	Yes

7. Description of Work: Replaced the bonnet and disc assembly to correct seat leakage.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ N-416-2 ☐

Other ☐ Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work order 2732251 installed the Bonnet, Arm and Disc assembly originally installed in 2PSIEV235, removed by Work Order 2695179 and refurbished by Work Order 2823579

Pre-Pressured Test WO Review – ISI Alan Monow 12/12/05

ANII RL J. Turner 12-15-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 1-29-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL J. Turner

Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JRCEPSV0200
- 2.. Item Description: Disc
3. N-5 Data Package Number: 1RC03-2
4. W.O. Number: 2733477
5. Original Construction Code Edition: 1974 Edition, Summer 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replaced disc
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Due to inspection and testing of valve deemed a new disc was needed.

10. Repair/Replacement Work Organization: NWS Technologies Arizona Public Service PN 11/3/05
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 1, 1974 Edition 1975 Summer Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial SRB Date 10/19/2005 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES RP2 ☒ NO 10-20-04

Initial SRB Date 10/19/2005 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial SRB Date 10/19/2005 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial SRB Date 10/19/2005 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Disc for 1JRCEPSV0200 S/N BS-08615	APN 45020245	ADP13 (Disc)	N/A	WO 2733477

18. Planner Scott R. Baize 10/20/2005 Printed Name: Scott R. Baize
Signature Date

19. ISI R.P. INDAP 10/20/05 Printed Name: R.P. INDAP Log Entry RP2
Signature Date

20. ANII R.G. HOGSTROM 10-21-05 Printed Name: R.G. HOGSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/03/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2733477

3. Work Performed by: NWS Technologies

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: RC - Reactor Coolant System

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Summer 1975 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Disc	Dresser	ADP13	N/A	APN 45020245	2003	Replacement	YES
Valve	Dresser	BS-08615	N/A	1JRCEPSV0200	1981	Repaired	YES

7. Description of Work: Disc replaced as part of routine testing and maintenance.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

2. Remarks: Disc APN(45020245) S/N ADP13 needed to be replaced in valve 1RCEPSV0200 S/N BS-08615

Pre-Pressured Test WO Review – ISI _____

ANII _____

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A

Certificate of Authorization No. _____ N/A Expiration Date: _____ N/A

Signed: Phong, Consulting Metallurgical Engineer Date: 10-21-2005
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-21-05 to 11-3-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 11-3-05

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

Pg. 1 of 2

1. Manufactured and certified by Dresser Flow Control, Dresser Inc. La. Hwy 3225 @ US Hwy 167 N
P. O. Bcx 1430 Alexandria, Louisiana 71309-1430
(name and address of NPT Certificate Holder)

2. Manufactured for Arizona Public Service Company P.O. Box 53940 Phoenix, Arizona 85072-3940
(name and address of purchaser)

3. Location of installation Arizona Public Service Co Palo Verde Nucl Generation 5801 S Wintersburg Rd. Tonopah, Arizona 85354
(name and address)

4. Type OS413 ASME SB637 INCONEL X750 170 KSI N/A 2003
(drawing no.) (matl spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code Section III, Division 1: 1974 WINTER 1975 1 N/A
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: Serial Numbers Are Used In Lieu Of NPT Stamping.

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)	ADP13	←	3508615
(2)	ADP14		
(3)			
(4)			
(5)			
(6)			
(7)			
(8)			
(9)			
(10)			
(11)			
(12)			
(13)			
(14)			
(15)			
(16)			
(17)			
(18)			
(19)			
(20)			
(21)			
(22)			
(23)			
(24)			
(25)			

Part or Appurtenance Serial Number		National Board No. in Numerical Order	
(26)			
(27)			
(28)			
(29)			
(30)			
(31)			
(32)			
(33)			
(34)			
(35)			
(36)			
(37)			
(38)			
(39)			
(40)			
(41)			
(42)			
(43)			
(44)			
(45)			
(46)			
(47)			
(48)			
(49)			
(50)			

10. Design pressure N/A psi Temp. N/A °F. Hydro. Test pressure 4500 PSIG at temp. °F
(when applicable)

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

Certificate Holder's Serial Nos. ADP13 AND ADP1

CERTIFICATION OF DESIGN

Design specifications certified by N/A P.E. State N/A Reg. No. N/A
 (when applicable)

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

CERTIFICATE OF COMPLIANCE

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

DISC

NPT Certificate of Authorization No. N-2434 Expires 5/20/2004

Date 9-22-03 Name SEE LINE 1 Signed [Signature]
 (NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel inspectors and the State or Province
 of LOUISIANA and employed by HSB CT
HARTFORD, CT. have inspected these items described in this Data Report on 9/22/03, and state that to the
 best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section
 III, Division 1. Each part listed has been authorized for stamping on the date shown above.

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

Date 9/22/03 Signed [Signature] Commissions [Signature]
 (Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

PVNGS QUALITY IDENTIFICATION TAG			
APN#45020245		S/L: N/A / U/M:EA	
PO#500262790.02.001		HR# 820016	
P/N# 5135801N		S/N ADP13	
P/N# PO2CUP# N/A		STG-LV:C QRC#0011-04	
ASME CODE SECIII,CL1		DATE: 01/05/04	
INSPECTED BY: <u>[Signature]</u>			

Page 1 of 1

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 08/22/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2733936

3. Work Performed by: Arizona Public Service Co.

Type of Code Stamp None

5801 S. Wintersburg Rd., Tonopah, Arizona, 85354-7529

Authorization No. N/A

Expiration Date N/A

4. Identification of System: CH: Chemical & Volume Control System

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Summer 1976 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Target Rock	1	N/A	1JCHBHV0203	1978	Replacement	Yes
Main Disc	Target Rock	302	N/A	1JCHBHV0203	2005	Replacement	No
Pilot Disc	Target Rock	359	N/A	1JCHBHV0203	2005	Replacement	No

7. Description of Work: Rework valve internals and reinstall seal weld.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-2 ☐

Other ☐ Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Per wo# 2733936 on valve 1JCHBHV0203 the body to bonnet seal weld will need to be removed to disassemble the valve to inspect and rework & replace code parts as necessary. Following rework the seal weld will be replaced.

Pre-Pressured Test WO Review – ISI

N/A

ANII

N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date: N/A

Signed: Will [Signature]

Owner or Owner's Designee, Title

Date: 8/23/05

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 8-22-05 to 8-23-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's report. Furthermore, neither the Inspector nor his employer shall be 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]

Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264

National Board, State, Province, and Endorsements

Date: 8-23-05

FORM N-5 DATA REPORT FOR FIELD INSTALLATION OF NUCLEAR POWER PLANT
COMPONENTS, COMPONENT SUPPORTS AND APPURTENANCES (SUPPLEMENT)

(As required by the Provisions of the ASME Code Rules, Section III, Division 1)

Installed by: Bechtel Power Corporation, Palo Verde, Ariz.

Installed for: Arizona Nuclear Power Project, Palo Verde, Ariz.

Location of Installation: Palo Verde Nuclear Generating Station, Unit 1

National Board No.: N/A

Code Class: ① 2 3

N-5 PACKAGE NO.: 1RC03-1

PAGE 3 OF 8

NUCLEAR COMPONENTS AND APPURTENANCES INSTALLED IN THE FIELD BY WELDING:

<u>COMPONENTS OR</u> <u>APPURTENANCES</u>	<u>NAME OF</u> <u>MANUFACTURER</u>	<u>LINE</u> <u>NO.</u>	<u>SERIAL</u> <u>NO.</u>	<u>YEAR</u> <u>BUILT</u>
1PCHEV431	BORG WARNER (PC-2978)	1CH009	51023	1979
1PCHAVM41	DRESSER IND.	1CH520	H013AAP	1980
01JCHBHV0203	TARGET ROCK	1CH521	#1 (DWG. 2SMH-S-1)	1978
01JCHAHV0205	TARGET ROCK	1CH520	#2 (DWG. 2SMH-S-1)	1978

SUPPLEMENTAL TO THE N-5 PACKAGE

MRB NO 30279
VPS OR VALVES 219

2841 ①

- | (a) Model No.,
Series No.
or Type | (b) Manufacturers'
Serial
No. | (c) Canadian
Registration
No. | (d) Drawing
No. | (e) Class | (f) Nat'l.
Bd. No. | (g) Year
Built |
|---|-------------------------------------|-------------------------------------|--------------------|-----------|-----------------------|-------------------|
|---|-------------------------------------|-------------------------------------|--------------------|-----------|-----------------------|-------------------|

CH 203

6. Design Conditions 2735 psi 650 °F or Valve Pressure Class --- (1)
(Pressure) (Temperature)

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

8. Pressure Retaining Pieces _____

[illegible]

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

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

9. Hydrostatic test 6500 psi

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. I, Edition 1974.
Addenda Summer 1976, Code Case No. --- Date ---
(Date)
Signed Target Rock Corporation by G. Aruzzo 3-29-78
(Manufacturer)
Our ASME Certificate of Authorization No. 1947 to use the N symbol expires 12/9/80
(N) (NFV) (Date)

Design information on file at Target Rock Corporation
Stress analysis report (Class 1 only) on file at Target Rock Corporation
Design specifications certified by (1) T.L. Kettles
PE State New York Reg. No. 029729
Stress analysis certified by (1) A. Bradicich
PE State N.Y. Reg. No. 025990
(1) Signature not required. List name only.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of New York and employed by Commercial Union Ins. of Boston, Mass. have inspected the pump or valve, described in this Data Report on 1000000000 19 78 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 Mar 22 1978 19 78
[Signature] Inspector
[Signature] Commissions 1000000000
(Nat'l Bd., State, Prov. and No.)

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1PRCEV237 2. Code Class ASME Section III Class 1

3. Item Description Valve Plug

4. N-5 Package Number 1RC01-19 5. W.O. Number 2736641

6. Original Construction Code Edition 1974 Edition Summer 1976 Addenda

7. Original Installation Code Edition 1974 Edition Winter 1975 Addenda

8. Work Description Replaced valve plug

9. ☐ ISI Flaw NDE Method of Flaw Detection _____
Report Number _____

10. Evaluation of the suitability of this work as per the requirements of IWA-4150.

11. Repair/Replacement Work Organization Arizona Public Service

12. Replacement Item Construction or reconciled Code/Edition Sec. III Class 1, 1974 Edition Summer 1976 Addenda

13. Repair/Replacement Activity Construction Code/Edition Sec. III CI 1, 1974 Edition Winter 1975 Addenda

14. ASME Section XI Code/Edition 1992 Edition 1992 Addenda

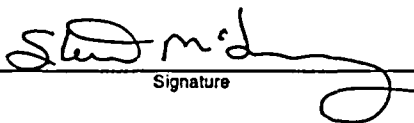
15. Preservice Inspection Required. ☐ YES ☒ NO
NA _____ If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date


16. ASME Section XI Pressure Test Required ☐ YES ☒ NO
NA _____ If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date


SJM 11/04/05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date

SJM 11/04/05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.
PLUG/SEAT RING	APN 45540048	<u>86604512 N/A</u> <u>11/8/05</u>	<u>NONE</u>	MR 1035368

19. Planner  11/4/05 Print Name Steven McInerney
Signature Date

20. ISI Engineer  11/4/05 Print Name Alan Morrow
Signature Date

21. ANII  11-4-05 Print Name RD KLEIN
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/04/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2736641

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: RC, ASME Section III Class 1

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Summer 1976 Addenda, NA Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	ITT Hammel Dahl	770634002	NA	1PRCEV237	1978	Repaired	YES
Valve Plug	ITT Hammel Dahl	NA	NA	1PRCEV237	2005	Replacement	NO

7. Description of Work: Replaced Valve Plug

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Replace Valve Plug per work instructions of WO# 2736641

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 11/7/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 11-4-05 to 11-8-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RK Hyatt

Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 11-8-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page _____ of _____

1. Component ID 1PCHN-297
- 2.. Item Description: 3"-330# Borg Warner Gate Valve mod. 77650-1
3. N-5 Data Package Number: 1SI07-3A
4. W.O. Number: 2739897
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Disassemble valve to correct gasket leak.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
No failure of the ASME Section III boundary. Replacing the bonnet studs due to rust caused by the gasket leakage. Will replace the studs with a corrosion resistant material.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☐ YES ☒ NO

Initial PMG Date 10-26-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial PMG Date 10-26-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial PMG Date 10-26-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial PMG Date 10-26-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Bonnet Studs	APN 43115007	N/A	8E6286	MR 1031989
Bonnet Studs	APN 43115007	N/A	8E6286	MR 1032194

18. Planner David Goodlet 10-26-05 Printed Name: David Goodlet
Signature Date

19. ISI Alan Morrow 10/27/05 Printed Name: Alan Morrow
Signature Date

20. ANII William Huber 10/27/05 Printed Name: William Huber
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/26/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2739897

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: CH: Chemical & Volumn Control System

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Bonnet Studs	Coast Industrial	N/A	N/A	HT 2K41	1978	Repaired	NO
Bonnet Studs	N/A	N/A	N/A	HT 8E6286	2005	Replacement	NO

7. Description of Work: Disassemble valve to correct gasket leakage.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Per wo# 2739897 on valve 1PCHNV397 the bonnet studs of material SA540 Gr B23 are being replaced with SA564 Gr. 630 (H1100). This material is corrosion resistance and is approved for use under ~~MECH~~ PCP #2042145
per 11/14/05

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 11-14-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-27-05 to 11-15-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS Hyman
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 11-15-05

Page 1 of 1

73DP-92217 Rev 9

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/01/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2739963

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: CH: Chemical & Volumn Control System

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Summer 1976 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Crosby	N61180-00-0005	N/A	1JCHNPSV0345	1984	Replaced	YES
Valve	Crosby	N61180-00-0002	N/A	1JCHNPSV0345	1979	Replacement	YES

7. Description of Work: Install spare valve to expidite work.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Valve 1JCHNPSV0345 was replaced under wo# 2739963 with a tested spare. The removed PSV is being removed for set point testing under the site valve test program and will be saved for use as a future spare valve.

Pre-Pressured Test WO Review - ISI Alan Morrow

ANII RB Lipton

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Morrow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 7-28-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RB Lipton Commissions: Az. 264 "A.N.I.C"
Inspectors Signature National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page _____ of _____

1. Component ID 1JSIAPSV0469
- 2.. Item Description: A Train SDC Relief Valve to RDT
3. N-5 Data Package Number: 1SI07-5
4. W.O. Number: 2739998
5. Original Construction Code Edition: 1974 Edition, Summer 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace PSV disc to correct seat leakage.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
No failure of ASME III pressure boundry. Disc was worn - treplaced to correct seat leakage.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec.III Cl 1, 1974 Edition 1975 Summer Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial BV Date 10/28/05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☒ NO

Initial BV Date 10/28/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial BV Date 10/28/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial BV Date 10/28/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Disc	APN 45020261	N91988-36-0019		MR 1032974

18. Planner B Vidal 10/28/05 Printed Name: Barbara Vidal
Signature Date

19. ISI Alan Morrow 10/28/05 Printed Name: Alan Morrow Log Entry am
Signature Date

20. ANII William E Huber Printed Name: William E Huber
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/28/05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2739998

3. Work Performed by: Arizona Public Service Co.

Type of Code Stamp None

5801 S. Wintersburg Rd., Tonopah, Arizona, 85354-7529

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SI

5. (a) Applicable Construction Code ASME Section III, Class 1 1974 Edition, Summer 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Disc	Crosby	N91988-36-0019	N/A	IJSIAPSV0469	1986	Replacement	No

7. Description of Work: Valve Disc replaced due to seat leakage.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-2 ☐

Other ☐ Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2739998. Disc being replaced to correct seat leakage.

Pre-Pressured Test WO Review - ISI N/A

ANII _____

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: RP Indap, Consulting Metallurgical Engineer Date: 11-2-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-23-05 to 11-2-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RP Indap
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 11-2-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PSIBV532
- 2.. Item Description: SIT 1B Discharge Check Valve
3. N-5 Data Package Number: 1RC01-1C
4. W.O. Number: 2750030
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace vlave internals (Bonnet, Arm and Disc assembly, disc and stud assembly) as required to correct seat leakage
8. ☐ ISI Flaw
- NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Replacement to correct seat leakage. No failure in the ASME boundary.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 1, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial J.P. Date 4-26-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial J.P. Date 4-26-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial J.P. Date 4-26-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial J.P. Date 4-26-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
BONNET	45060185	SN / 2W		202 434B
Disc	45060185	SN / A		202 434B

18. Planner [Signature] 4-26-05 Printed Name: James I. Davis
Signature Date

19. ISI Alan Morrow 4-26-05 Printed Name: Alan Morrow Log Entry am
Signature Date

20. ANII R.G. Hogstrom 4-26-05 Printed Name: R.G. Hogstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12-20-05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2750030

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Borg-Warner	27603	N/A	1PSIBV532	1978	Repaired	YES
Disc	Borg-Warner	5	N/A	3K65	1985	Replaced	YES
Bonnet	Borg-Warner	5	N/A	1P88	1979	Replaced	YES
Disc	Borg-Warner	4	N/A	1Q90	1979	Replacement	YES
Bonnet	Borg-Warner	2W	N/A	1Q89	1979	Replacement	YES

7. Description of Work: Replace the bonnet and disc assembly to correct seat leakage.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work order 2750030 replaced the bonnet and disc assembly previously installed in IPSIAV522, removed by Work Order 2833917 and refurbished by Work Order 2824348.
Note that the bonnet and disc assembly removed from IPSIA532 was originally installed in IPSIEV143, removed by Work Order 00888782 and reworked (disc replaced) by Work Order 00917904. This assembly was installed by Work Order 2412331.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 4-29-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS [Signature]
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JRCBH0108
- 2.. Item Description: PRESSURIZER VENT VALVE TO RDT
3. N-5 Data Package Number: 1RC03-2 4. W.O. Number: 2752070
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: REWORK INTERNALS, REPLACING MAIN DISC
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
REWORK VALVE INTERNALS, NO FAILURE OF ASME SECTION III BOUNDARY.

10. Repair/Replacement Work Organization: Arizona Public Service *1989 Edition No Addenda*
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 1, 1974 Edition 1975 Winter Addenda *12/2/05*
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO
- Initial CEO Date 10/12/05 If required, include a step in the W.O. to perform Preservice Inspection
15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO
- Initial CEO Date 10/12/05 If required, include a step in the W.O. for ISI & ANII Inspection.
- Initial CEO Date 10/12/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
- Initial CEO Date 10/12/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
MAIN DISC	204855 - 2	325	P0932	42944876
				PO. 500282947. 01.
				007
				w/p 2752070

18. Planner G. Osmundson 10/12/05 Signature Date Printed Name: G. Osmundson
19. ISI Alan Morrow 10/12/05 Signature Date Printed Name: Alan Morrow Log Entry NAI
20. ANII R.D. Klein 10-12-05 Signature Date Printed Name: R.D. Klein

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/11/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2752070

3. Work Performed by: Arizona Public Service Company

Type of Code Stamp None

5801 S. Wintersburg Rd., Tonopah, Arizona, 85354-7529

Authorization No. N/A

Expiration Date N/A

4. Identification of System: 1RC03-2

5. (a) Applicable Construction Code ASME Section III NB, Class 1

1977 Edition, Winter 1978 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Target Rock	21	N/A	1JRCBHV0108	2001	Repaired	Yes
Main Disc	Target Rock	325	N/A	1JRCBHV0108	2005	Replacement	No

7. Description of Work: Rework internals, replace main disc..

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-2 ☐

Other ☐

Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO 2752070

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 11/30/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-12-05 to 12-3-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL Lytton

Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 12-3-05

7282

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

Pg. 1 of 2

1. Manufactured and certified by Target Rock.; 1966E Broadhollow Rd.; E. Farmingdale, NY 11735
(name and address of NPT Certificate Holder)
2. Manufactured for Arizona Public Service Co.; Phoenix, AZ 85072
(name and address of Purchaser)
3. Location of installation Palo Verde Nuclear Generating Station; Wintersburg Rd.; Tonopah, AZ
(name and address)
4. Type 204751-1 SA564 630 140 ksi N/A 2005
(drawing no.) (mat'l. spec. no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 None 1 None
(edition) (addenda date) (class) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks: Main Disc (Part of Main & Pilot Disc Set p/n 204855-2)
Spare part for valve model no. 98F-001

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

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

Part or Appurtenance Serial Number	National Board No. In Numerical Order	Part or Appurtenance Serial Number	National Board No. In Numerical Order
(1) 316	NA	(26)	
(2) 319		(27)	
(3) 325		(28)	
(4) 333		(29)	
(5) 338		(30)	
(6) 343		(31)	
(7) ---		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure N/A psi. Temp. N/A °F Hydro. Test pressure 4810 psig at temp. °F
(when applicable) Ambient

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

(12/88) This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

REPRINT (7/91)

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

Certificate Holder's Serial Nos. 204751-1 s/n 316, 319, 325, 333, 338 & 343

CERTIFICATION OF DESIGN

Design specifications certified by Jose Aquila Daza P.E. State AZ Reg. No. 24485
(when applicable)
 Design report* certified by W. R. D. Kerr P.E. State VA Reg. No. 024868
(when applicable)

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-1948 Expires 12/12/2007

Date 4/21/2005 Name Target Rock Signed [Signature]
(NPT Certificate Holder) R. E. Glazier, QA Manager
(authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of New York and employed by OneBeacon America Insurance Co. of Boston, MA have inspected the pump, or valve, described in this Data Report on 4/21/2005 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

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

Date 4/21/05 Signed [Signature] Commissions N.Y. 5102
(Authorized Inspector) (Nat'l. Bd. (Incl. endorsements) and state or prov. and no.)

ASME SECTION XI – REPAIR / REPLACEMENT

Page of

1. Component ID APN 45002024
- 2.. Item Description: PSV
3. N-5 Data Package Number: 3SP02-3
4. W.O. Number: 2753321
5. Original Construction Code Edition: 1974 Edition, Summer 1976 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: valve seat changed out due to seat leakage. This valve will be returned to stock. Valve serial number 24.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
valve seat changed out due to seat leakage.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 3, 1974 Edition 1976 Summer Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☐ YES ☒ NO

Initial MS Date 12-8-04 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial MS Date 12-8-04 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial MS Date 12-8-04 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial MS Date 12-8-04 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
seat nozzle	200872	106	n/a	2753321

18. Planner Martin J. Sullivan 12-8-04 Printed Name: Martin J. Sullivan
Signature Date

19. ISI Alex Morrow 12/9/04 Printed Name: Alex Morrow Log Entry am
Signature Date

20. ANII RL Hogstrom 12-14-04 Printed Name: RL Hogstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12/08/2004

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 3

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2753321

3. Work Performed by: Arizona Public Service Co.

Type of Code Stamp None

5801 S. Wintersburg Rd., Tonopah, Arizona, 85354-7529

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SP

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Summer 1976 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Safety Valve	Target Rock	24	N/A	APN45002024	1980	Repaired	Yes
Nozzle Seat	Target Rock	106	N/A	APN45002024	2004	Replacement	No

7. Description of Work: Valve seat changed out due to seat leakage. This valve will be returned to stock.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-2 ☐

Other ☐ Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Target Rock valve s/n 24, removed from location 3JSPBPSV0144, repaired under W.O. 2753321 and returned to the warehouse for restock.

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A

Certificate of Authorization No. _____ N/A Expiration Date: _____ N/A

Signed: RLB RLBrowning ISA Date: 12/16/04
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 12-14-04 to 12-16-04, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RLB
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 12-16-04

ASME SECTION XI - REPAIR/REPLACEMENT




Page 1 of 1

1. Component ID 1SG039H038 2. Code Class ASME III Subsection NF Class 2
3. Item Description #3 PSA Mechanical Snubber W/Forward Bracket
4. N-5 Package Number 1SG01-4 5. W.O. Number 2766744
6. Original Construction Code Edition 1974 Edition, Winter 1975 Addenda
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Install new #3 PSA mechanical snubber on modified line 2PSGEI 039
9. ☐ ISI Flaw NDE Method of Flaw Detection N/A
Report Number N/A
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
DMWO #2541285

11. Repair/Replacement Work Organization Arizona Public Service
12. Replacement Item Construction or reconciled Code/Edition 1974 Edition, Winter 1975 Addenda
13. Repair/Replacement Activity Construction Code/Edition 1974 Edition, Winter 1975 Addenda
14. ASME Section XI Code/Edition 1992 Edition, 1992 Addenda

15. Preservice Inspection Required. ☒ YES ☐ NO
If required, include a step in the W.O. to perform Preservice Inspection.
SE 10-6-05
Initial Date
16. ASME Section XI Pressure Test Required ☐ YES ☒ NO
If required, include a step in the W.O. for ISI & ANII Inspection.
SE 10-6-05
Initial Date
17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
SE 10-6-05
Initial Date
18. Include a step in the W.O. to record below all applicable numbers for replacement items.
SE 10-6-05
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.
<u>1SG039H038</u>	<u>NA</u>	<u>24405</u>	<u>NA</u>	<u>3350705</u>

19. Planner  10-6-05 Print Name Steven R. Eich
Signature Date
20. ISI Engineer  10-9-05 Print Name D.B. Hansen
Signature Date 20 JUN 2015
21. ANII  10-10-05 Print Name R.D. KLEIN
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/22/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2766744
Address Work Order Number

3. Work Performed by Arizona Public Service Company Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Expiration Date N/A
Address

4. Identification of System SG

5. (a) Applicable Construction Code ASME Section III N1 19 77 Edition, S79 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Support	PSA	24405	NA	1SG039H038	NA	Replacement	Yes

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Work included the installation of new snubber, per DIWO 2766744
Pipe clamp and rear snubber bracket installed per DIWO 2665224 / WP&IR P-DB-401

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed *DAK* ENGR Date 11-22-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of _____ and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-10-05 to 11-23-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS *of HSB* Commissions AZ 264 "N.B.I.C."
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-23-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page _____ of _____

1. Component ID 1JSIAUV0673
2. Item Description: A TRAIN SDC SUCTION VALVE FROM CONTAINMENT RECIRC SUMP
3. N-5 Data Package Number: 1SI01-1B
4. W.O. Number: 2767628
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace the gasket retainer bolts per EDC 2005-00025

8. ☐ ISI Flaw

NDE Method of Flaw Detection:

Report Number:

9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:

The bolts are being replaced as a precautionary measure with a more SCC resistant material (410 vs 17-4 PH)

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1974 Edition 1974 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required:

☐ YES

☒ NO

Initial N/A Date _____ If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required:

☐ YES

☒ NO

Initial N/A Date _____ If required, include a step in the W.O. for ISI & ANII Inspection.

Initial J.D. Date 9-16-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial J.D. Date 9-16-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Gasket retainer bolts	APN 00090043	N/A	N1412	MR 1017793

18. Planner [Signature] 9-16-05 Printed Name: James I. Davis

Signature

Date

19. ISI Alan Morrow 9/16/05 Printed Name: Alan Morrow Log Entry am

Signature

Date

20. ANII [Signature] 9-16-05 Printed Name: R.G. Hogstrom

Signature

Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/4/05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2767628

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Posi -Seal	14336-3A	N/A	1JSIAUV0673	1978	Repaired	YES
Gasket retainer bolts	N/A	HT# N1412	N/A	1JSIAUV0673	2005	Replacement	NO

7. Description of Work: Replace the gasket retainer bolting as required per EDC 2005-00025

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order 2767628 replaced the original 410 Stainless steel gasket retainer bolts with more corrosion resistant SA564, Gr 630 bolts per EDC 2005-00025 and DMWO 2760330.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Morrow FSI Engineer Date: 11/4/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 NC and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 9-16-05 to 11-4-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's report. Furthermore, neither the Inspector nor his employer shall be 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]
Inspectors Signature

Commissions: NC 853, N-I
National Board, State, Province, and Endorsements

Date: 11-4-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JSIBUV0675
2. Item Description: B TRAIN SDC SUCTION VALVE FROM CONTAINMENT RECIRC SUMP
3. N-5 Data Package Number: 1SI01-1B
4. W.O. Number: 2767631
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace the gasket retainer bolts per EDC 2005-00028
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:

The bolts are being replaced as a precautionary measure with a more SCC resistant material (410 vs 17-4PH).

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1974 Edition 1974 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial N/H Date _____ If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial N/A Date _____ If required, include a step in the W.O. for ISI & ANII Inspection.

Initial J.W Date 9-16-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial J.W. Date 9-16-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Gasket retainer bolts	APN 00090043	N/A	<u>J, D 11-16-05</u> N1412 <u>010J</u>	MR 1017877

18. Planner [Signature] 9-16-05 Printed Name: James I. Davis
Signature Date

19. ISI Alan Morrow 9-16-05 Printed Name: Alan Morrow Log Entry am
Signature Date

20. ANII R.G. Hogstrom 9-16-05 Printed Name: R.G. Hogstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/12/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2767631

3. Work Performed by: Arizona Public Service Co.

Type of Code Stamp None

5801 S. Wintersburg Rd., Tonopah, Arizona, 85354-7529

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SI: Safety Injection

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Posi-Seal	14337-4-B	N/A	1JSIBUV0675	1981	Repaired	Yes
Gasket Retainer Bolts	N/A	Ht# 010J	N/A	1JSIBUV0675	2005	Replacement	No

7. Description of Work: Replace the gasket retainer bolting as required per EDC 2005-00028.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-2 ☐

Other ☐ Pressure N/A psi

Test Temperature N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order 2767631 replaced the original 410 Stainless steel gasket retainer bolts with more corrosion resistant SA564, Gr 630 bolts per EDC 2005-00028 and DMWO 2760330.

Pre-Pressured Test WO Review – ISI _____

ANII _____

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A _____

Certificate of Authorization No. _____ N/A _____ Expiration Date: _____ N/A _____

Signed: _____ RLB ENG _____ Date: 11-12-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 9-16-05 to 11-16-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 11-16-05

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1SG523H003
2. Code Class ASME III Subsection NF Class 2
3. Item Description #3 PSA Mechanical Snubber W/Forward Bracket
4. N-5 Package Number 1SG02-4
5. W.O. Number 2770212
6. Original Construction Code Edition 1974 Edition, Winter 1975 Addenda DOB 12-2-05
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Install new #3 PSA mechanical snubber on new blowdown line 1PSGEI 523
9. ☐ ISI Flaw NDE Method of Flaw Detection N/A
Report Number N/A
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
DMWO #2585669
11. Repair/Replacement Work Organization Arizona Public Service
12. Replacement Item Construction or reconciled Code/Edition 1974 Edition, Winter 1975 Addenda DOB 12-2-05
13. Repair/Replacement Activity Construction Code/Edition 1974 Edition, Winter 1975 Addenda
14. ASME Section XI Code/Edition 1992 Edition, 1992 Addenda
15. Preservice Inspection Required. ☒ YES ☒ NO DOB 12-2-05
SE 10-6-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date
16. ASME Section XI Pressure Test Required ☐ YES ☒ NO
SE 10-6-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date
17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
SE 10-6-05
Initial Date
18. Include a step in the W.O. to record below all applicable numbers for replacement items.
SE 10-6-05
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.
<u>45350032</u>	<u>N/A</u>	<u>21569</u>	<u>N/A</u>	<u>MRR-02302</u>

19. Planner Steven R. Eich 10-6-05 Print Name Steven R. Eich
Signature Date

20. ISI Engineer D. B. Hansen 10-9-05 Print Name D. B. Hansen
Signature Date LOFFER DPH

21. ANII R. D. Klein 10-10-05 Print Name R. D. KLEIN
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/02/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2770212
Address Work Order Number

3. Work Performed by Arizona Public Service Company Type Code Symbol Stamp None
Name
Authorization No. N/A
5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Expiration Date N/A
Address

4. Identification of System SG

5. (a) Applicable Construction Code Section III NF 19 77 Edition, S79 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Support	PSA	21569	NA	1SG523H003	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐
 Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Work included the installation of new snubber, per DIWO 2770212
Pipe clamp and rear snubber bracket installed per DIWO 2665374 / WP&IR P-DB2-404

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DAN ENGR Date 12-2-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-10-05 to 12-2-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

William E. Allen
Inspector's Signature

Commissions VA 558 "R."
National Board, State, Province, and Endorsements

Date 12-2-05

Page 1 of 1

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12/03/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2774384

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: CH: Chemical and Volumn Control System

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Summer 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Plug/stem Ass'y	Fisher	AC3595-1	N/A	1JCHEFV0110Q	2003	Replacement	YES

7. Description of Work: Disassemble valve and inspect internals due to low flow rate.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2774384 on valve 1JCHELV01100 disassembled and rework valve. The plug/stem assy was replaced due to wear.

Pre-Pressured Test WO Review -- ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/4/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 6-29-05 to 12-5-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's report. Furthermore, neither the Inspector nor his employer shall be 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]
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 12-5-05

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

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

Not to exceed One Day's Production

Pg. 1 of 1

2260277 *IT#1*

319-F502906

1. Manufactured and certified by FISHER CONTROLS INT'L INC., 205 SOUTH CENTER STREET, MARSHALLTOWN, IA. 50158
(name and address of NPT Certificate Holder)
2. Manufactured for Arizona Public Service Co, PO Box 53940, Phoenix, AZ 85072
(name and address of purchaser)
3. Location of installation Palo Verde Nuclear Station, 4 Miles South of Wintersburg Rd, Palo Verde, AZ 85343
(name and address)
4. Type 14A3722 Rev. C SA479 S31603 70 KSI N/A 2003
(drawing no.) (mat'l spec. no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III: 1974 Summer 1975 2 N/A
(edition) (addenda date) (class) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks: Design: ASME BPVC Sec III, 1974 Edition, Summer 1975 Addenda, Class 2
Other: ASME BPVC Sec III, 1989 Edition, No Addenda, Class 2
8. Nom. thickness (in.) N/A Min. design thickness (in.) N/A Dia. ID (ft & in.) N/A Length overall (ft & in.) N/A
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

	Part or Appurtenance Serial Number	Heat Number
(1)	AC3595-1	714641
(2)	AC3595-2	714641
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		
(11)		
(12)		
(13)		
(14)		
(15)		
(16)		
(17)		
(18)		
(19)		
(20)		
(21)		
(22)		
(23)		
(24)		
(25)		

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

0. Design Pressure 2485 psi. Temp. 550 °F. Hydro. test pressure N/A at temp. °F
(when applicable)

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

CERTIFICATION OF DESIGN

Design specifications certified by T. L. Kettles P.E. State NY Reg. no. PE029729
 (when applicable)

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

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization No. 1930 Expires 11-11-2004

Date 4-10-03 Name FISHER CONTROLS INT'L INC Signed Linda Ward
 (NPT Certificate Holder) (authorized representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or Province of Iowa
 and employed by Hartford Steam Boiler of CT
 of Hartford, CT have inspected these items described in this Data Report on 4-10-03 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. Further
 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 4-10-03 Signed Kurt Cochrane Commissions P22 IA
 (Authorized Inspector) (Nat'l Bd. (incl. endorsements) state or prov. and n

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1MEWAE01
- 2.. Item Description: ESSENTIAL COOLING WATER HEAT EXCHANGER
3. N-5 Data Package Number: 1EW01-1
4. W.O. Number: 2777754
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Perform base material weld repairs on the Channel Heads and Channel Head Covers of the Essential Cooling Water (EW) Heat exchanger, as identified by Engineering.

8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:

9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:

ENGINEERING INSPECTION DETERMINED WELD REPAIRS REQUIRED PRIOR TO RE-COATING. THERE WAS NO FAILURE OF THE PRESSURE BOUNDARY.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 3, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 3, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial KVS Date 10/29/2005 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial KVS Date 10/28/2005 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial KVS Date 10/28/2005 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial KVS Date 10/28/2005 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1MEWAE01	N/A	N/A	N/A	N/A

18. Planner Karl V. Savage 10/29/2005 Printed Name: Karl V. Savage
Signature Date

19. ISI Alan Morrow 10/28/05 Printed Name: Alan Morrow
Signature Date

20. ANII William Huber 10/24/05 Printed Name: William Huber
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11-3-05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2777754

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Essential Cooling Water (EW)

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Winter 1975 Addenda, Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
EW Heat Exchanger	Struther Wells Corporation	17606329131	14440	1MEWAE01	1978	Repaired	YES

7. Description of Work: Perform base material weld repairs on the Channel Heads and Channel Head Covers of the Essential Cooling Water (EW) Heat exchanger, as identified by Engineering.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ N-416-1 ☐

Other ☐

Pressure psi

Test Temperature °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

Remarks: Work Work Order 277754. To perform Weld repairs on the Char:nel Heads and Covers of the Essential Cooling Water (EW) Heat Exchanger, as identified by Engineering.

Pre- Pressure Test Review: ISI: Alan Morrow
ANI: RS Lytton

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Morrow ISI Engineer Date: 11/3/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-29-05 to 11-3-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS Lytton

Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 11-3-05

Page 1 of 1

Printed Name: RG Holstrom

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/09/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2777757

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Essential Cooling Water (EW)

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Winter 1975 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
EW Heat Exchanger	Struther Wells Corporation	17606329132	14441	1MEWBE01	1978	Repaired	YES

7. Description of Work: Perform base material weld repairs on the Channel Heads and Channel Head Covers of the Essential Cooling Water (EW) Heat exchanger, as identified by Engineering.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ N-416-1 ☐

Other ☐ Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Perform base material weld repairs on the Channel Heads and Channel Head Covers of the Essential Cooling Water (EW) Heat exchanger, as identified by Engineering. Work Order 277757.

Prepressure Test Review

Alan Monow

ISI
25/11/05

ANII

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A

Certificate of Authorization No. _____ N/A Expiration Date: _____ N/A

Signed: *[Signature]* SR. ISI ENGINEER Date: *11/20/05*
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 11-9-05 to 11-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's report. Furthermore, neither the Inspector nor his employer shall be 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]

Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 11-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JSGBUV0500R
- 2.. Item Description: Anchor Darling 6"-900# Pressure Seal Gate Valve
3. N-5 Data Package Number: 1SG02-4 4. W.O. Number: 2777948
5. Original Construction Code Edition: 1974 Edition, Summer 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Disassemble and rework valve due to damaged stem.
8. ☐ ISI Flaw NDE Method of Flaw Detection: →/A
Report Number: →/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Not a failure of the ASME pressure boundary. The disc is being replaced due to wear and the bonnet is being replaced to minimize maintenance time.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1974 Edition Summer 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DWG Date 11-7-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DWG Date 11-7-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DWG Date 11-7-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DWG Date 11-7-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Valve	n/a	E6374432	n/a	n/a
Bonnet	APN 45060269	2	G6995	MR 1035921
Gate Valve Disc	APN 45020293	J1265	C9058	MR 1035909

18. Planner David Goodlet 11-7-05 Printed Name: David Goodlet
Signature Date

19. ISI Alan Morrow 11/7/05 Printed Name: Alan Morrow Log Entry an
Signature Date

20. ANII R.G. Houston 11-7-05 Printed Name: R.G. Houston
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/7/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2777948

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SG: Main Steam System

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Summer 1975 Addenda, * Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Anchor Darling	E-6374-43-2	N/A	1JSGBUV0500R	1980	Repaired	YES
Bonnet	Flowserve Corp	2	N/A	1JSGBUV0500R	2001	Replacement	YES
Disc	Flowserve Corp	J1265	N/A	1JSGBUV0500R	2001	Replacement	YES

7. Description of Work: Disassemble and rework valve due to damaged stem. * See Remarks

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order# 2777948 for valve 1JSGBUV0500R was disassemble for stem replacement. The disc is being replaced due to wear. The bonnet is being replaced due to wear and to expedite maintenance time.

* ORIGINAL VALVE S/N E-6374-43-2 BUILT USING CODE CASES 1567, 1682, 1635, 1677, 1744-1 AND 1516-2

Pre-Pressured Test WO Review - ISI Alan Monow 12/6/05

ANII RA Hyman 12-6-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 11-7-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RA Hyman
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

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

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

Pg. 1 of _____

1. Manufactured and certified by Flowserve Corporation, 701 First Street, Williamsport, PA 17701
(name and address of NPT Certificate Holder)

2. Manufactured for Arizona Public Service Company, P.O. Box 53940, Phoenix, AZ 85072-3940
(name and address of Purchaser)

3. Location of installation Palo Verde, 5801 So. Wintersburg Road, Tonopah, AZ 85354
(name and address)

4. Type: D10889 SA217-WC9 70,000 N/A 2001
(drawing no.) (mat'l. spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code, Section III, Division 1: 1974 Summer 1975 2 N/A
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: Spare Part for 6"-900#-FW Gate Valve
Flowserve S.O. & Item No.: P-308G-1

8. Nom. thickness (in.) 2-3/4 Min. design thickness (in.) .87 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
J1265	N/A
(1)	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
(14)	
(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
(37)	
(38)	
(39)	
(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2250 psi. Temp. 100 °F. Hydro. test pressure N/A at temp. °F
(when applicable)

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

(12/88)

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

J1265

Certificate Holder's Serial Nos. _____ through _____

CERTIFICATION OF DESIGN

Design specifications certified by N/A P.E. State _____ Reg. no. _____
(when applicable)

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

CERTIFICATE OF COMPLIANCE

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


NPT Certificate of Authorization No. N1713 Expires 04/15/04

Date 5-10-01 Name Flowserve Corporation Signed D. Rudenstam
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Pennsylvania and employed by Commercial Union Insurance Company of Boston, Mass. have inspected these items described in this Data Report on 1-19-01 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

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

Date 5-11-01 Signed Charles Young  256 Commissions Pennsylvania 2392
(Authorized Inspector) (Nat'l Bd. (incl. endorsements) and state or prov. and no.)

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES
As required by the Provision of the ASME Code Rules, Section III, Div. 1

1. (a) Manufactured by Flowserve Corporation, 701 First Street, Williamsport, PA 17701
(b) Manufactured for Arizona Public Service Company, P.O. Box 53940, Phoenix, AZ 85072-3940

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

(a) Constructed According to Drawing No. D10890 R/- Drawing Prepared by Flowserve Corp.

(b) Description of Part Inspected Bonnet w/CoCr, Heat No. G6995, Material SA182-F22-3

(c) Applicable ASME Code: Section III, Edition 1974, Addenda date Sum '75, Case No. N/A Class 2

3. Remarks: Spare Part for 6"-900#-FW Gate Valve
Flowserve S.O. & Item No.: P-558G-1
No hydrotest 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 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 9-25-2001 Signed Flowserve Corporation By D. Roudenslager
Certificate of Authorization Expires 4/15/04 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 2-11-01 9-27-01 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 9-27-01 258
Charles Young Commissions Pennsylvania 2392
Inspector's Signature National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used providing (1) made to 8 1/2" x 11", (2) Information in items 1-2 on this Data Report is pertinent to each sheet, and (3) each sheet is numbered and number of sheets is recorded on item 2, "Remarks".

Page 1 of 1Page 1 of 1

- ### 8. ☐ ISI Flaw

Report Number:

- Not a failure of the ASME pressure boundary. Seal weld is required to be removed to allow for valve disassembly.

- Initial pmg Date 10-26-05 If required, include a step in the W.O. to perform Preservice Inspection

- Initial DMF Date 10-26-95 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DMG Date 10-26-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DMG Date 10-26-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

18. Planner David Goodlet 10-26-05 Printed Name: David Goodlet
Signature Date

19. ISI Alan Morrow 10/26/05 Printed Name: Alan Morrow Log Entry am
Signature Date

20. ANII RG Hogstrom 10-26-05 Printed Name: RG Hogstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/26/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2777983

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: CH: Chemical & Volumn Control System

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Borg Warner	27663	N/A	1PCHNV816	1978	Repaired	YES
Seal Weld	N/A	N/A	N/A	1PCHNV816	2005	Replacement	NO

7. Description of Work: Disassembled valve to rework to correct seat leakage. Removed & replaced seal weld.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

Remarks: Per wo# 2777983 on valve 1PCHNV816 the body to bonnet seal weld will need to be removed to disassemble the valve to correct seat leakage. Following rework the seal weld will be replaced.

Pre-Pressured Test WO Review - ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Morrow ISI Engineer Date: 11/3/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-26-05 to 11-3-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RLH
Inspectors Signature

Commissions: NB 9685 'N' 'T' AZ264
National Board, State, Province, and Endorsements

Date: 11-3-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of

1. Component ID ISI-153-H-00F
2. Code Class: ASME Section III, Class 1 Subsection NF
3. Item Description: SAFETY INJECTION PIPE SUPPORT
4. N-5 Data Package Number: 15102-1
5. W.O. Number: DIWO : 2779303
6. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
7. Original Installation Code Edition: : 1974 Edition, Winter 1975 Addenda
8. Work Description: MODIFY PIPE SUPPORT ISI-153-H-00F
9. ☐ ISI Flaw NDE Method of Flaw Detection: N/A
Report Number: N/A
10. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DMWO : S3-2541285

11. Repair/Replacement Work Organization: Bechtel Construction Inc.
12. Replacement Items Construction or reconciled Code/Edition: 1974 Edition, Winter 1975 Addenda
13. Repair/Replacement Activity Construction Code/Edition: 1974 Edition, Winter 1975 Addenda
14. ASME Section XI Code/Edition: 1992 Edition, 1992 Addenda
15. Preservice Inspection Required: ☐ YES ☒ NO

Initial DSP Date 10-30-05 If required, include a step in the W.O. to perform Preservice Inspection

16. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial DSP Date 10/27/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 10/27/05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 10/29/05 18. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
ISI-153-H-00F (ITEM 71)	N/A	N/A	59631	MRP # 02367
	N/A	N/A		
	N/A	N/A		
	N/A	N/A		
	N/A	N/A		
	N/A	N/A		
	N/A	N/A		

19. Planner Dale S. Preslar 10/29/05 Printed Name: Dale S. Preslar
Signature Date
20. ISI D.O. Hansen 10-30-05 Printed Name: D.O. Hansen
Signature Date
21. ANII RLG Holstrom 10-30-05 Printed Name: RLG Holstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/01/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2779303
Address Work Order Number

3. Work Performed by Arizona Public Service Company Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System SI

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
SUPPORT	NA	NA	NA	1SI153H00F	NA	Repaired	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Added ITEM 71 plates to existing support 1SI153H00E per DIWO # 2779303.

DMWO # S3-2541285

WP&IR # P-PSM-452

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH SR CONSULTING ENGINEER Date 11-1-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 NC and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-12-05 to 11-1-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

DB Klein
Inspector's Signature

Commissions NB853 N-I
National Board, State, Province, and Endorsements

Date 11-1-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 01-SI-179-H-00A AND 01-SI-175-H-00A
2. Code Class: ASME Section III, Class 1 SUBSECTION NF
3. Item Description: SAFETY INJECTION PIPE SUPPORTS
4. N-5 Data Package Number: 12C01-1B
5. W.O. Number: DIWO: 2779304 / NCR-25030-046
A
NCR WAS NOT A
CODE REPAIR OR
REPLACEMENT.
DISH
11-18-05
6. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
7. Original Installation Code Edition: : 1974 Edition, Winter 1975 Addenda
8. Work Description: Modify Support / NCR-25030-046
9. ☐ ISI Flaw PA NDE Method of Flaw Detection: N/A
 Report Number: N/A
10. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
 DMWO: S3-2541285

11. Repair/Replacement Work Organization: Bechtel Construction Inc.
12. Replacement Items Construction or reconciled Code/Edition: 1974 Edition, Winter 1975 Addenda
13. Repair/Replacement Activity Construction Code/Edition: 1974 Edition, Winter 1975 Addenda
14. ASME Section XI Code/Edition: 1992 Edition, 1992 Addenda

15. Preservice Inspection Required:

☒ YES ☒ NO

Initial DGH Date 10-30-05 If required, include a step in the W.O. to perform Preservice Inspection

16. ASME Section XI Pressure Test Required:

☒ YES ☒ NO

Initial DSP Date 10/29/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 10/29/05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 10/29/05 18. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
ITEM 70A (SI-179-H-00A)	70A	<u>N/A</u>	01W8	MRP# 02367
ITEM 70A (SI-175-H-00A)	70A	<u>N/A</u>	01W8	MRP# 02367

19. Planner Dale S. Preslar 10/29/05 Printed Name: Dale S. Preslar
 Signature Date

20. ISI DGH 10-30-05 Printed Name: Hamber
 Signature Date

21. ANII R.G. Hogstrom 10-30-05 Printed Name: R.G. Hogstrom
 Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/18/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2779304
Address Work Order Number

3. Work Performed by Arizona Public Service Company Type Code Symbol Stamp None
Name
Authorization No. N/A
5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Expiration Date N/A
Address

4. Identification of System SI

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W75 Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
SUPPORT	NA	NA	NA	1SI179H00A	NA	Replacement	No
SUPPORT	NA	NA	NA	1SI175H00A	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐
 Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Modified to include an ITEM 70 on supports 1SI175H00A and 1SI179H00A per DIWO #
2779304
DMWO # S3-2541285
WP&IR # P-PSM-450

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed *Don* *ENGR* Date *11-18-05*
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-29-05 to 11-18-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

William E. Wilson
Inspector's Signature

Commissions *VA 558 R*
National Board, State, Province, and Endorsements

Date *11-18-05*

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of

1. Component ID 01-SI-221-H-00A 2. Code Class: ASME Section III, Class 1 SUBSECTION NF
3. Item Description: SAFETY INJECTION PIPE SUPPORTS
4. N-5 Data Package Number: 5. W.O. Number: DIWO: 2779305
6. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
7. Original Installation Code Edition: : 1974 Edition, Winter 1975 Addenda
8. Work Description: Modify Support
9. ☐ ISI Flaw NDE Method of Flaw Detection: N/A
NA Report Number: N/A
10. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
 DMWO: S3-2541285

11. Repair/Replacement Work Organization: Bechtel Construction Inc.
12. Replacement Items Construction or reconciled Code/Edition: 1974 Edition, Winter 1975 Addenda
13. Repair/Replacement Activity Construction Code/Edition: 1974 Edition, Winter 1975 Addenda
14. ASME Section XI Code/Edition: 1992 Edition, 1992 Addenda
15. Preservice Inspection Required: ☒ YES ☒ NO
00H 10-30-05

Initial 00H Date 10-30-05 If required, include a step in the W.O. to perform Preservice Inspection

16. ASME Section XI Pressure Test Required: ☒ YES ☒ NO

Initial DSP Date 10/29/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 10/29/05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 10/29/05 18. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	(MR/PO/WO No.
ITEM 70A (SI-221-H-00A)	70A	N/A	01W8	02367
ITEM 137 (SI-221-H-00A)	137	N/A	01W8	02367

19. Planner Dale S. Preslar 10/29/05 Printed Name: Dale S. Preslar
 Signature Date

20. ISI DDZL- 10-30-05 Printed Name: HANSEN
 Signature Date

21. ANII RG Holstrom 10-30-05 Printed Name: RG HOLSTROM
 Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/02/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2779305
Address Work Order Number

3. Work Performed by Arizona Public Service Company Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Authorization No. N/A
Address Expiration Date N/A

4. Identification of System SI

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
SUPPORT	NA	NA	NA	1SI221H00A	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Modified to include an ITEM 70 on support 1SI221H00A per DIWO # 2779305

DMWO # S3-2541285

WP&IR # P-PSM-454

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DALL ENGR Date 11-2-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 NC and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-12-05 to 11-2-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

DA Klein
Inspector's Signature

Commissions NC 853 N-I
National Board, State, Province, and Endorsements

Date 11-2-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1SI-240-H-00A & 1SI-248-H-00B 2. Code Class: ASME Section III, Class 1 Subsection NF
3. Item Description: SAFETY INJECTION PIPE SUPPORTS
4. N-5 Data Package Number: 15107-7 12601-1B 5. W.O. Number: DIWO : 2779306
6. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
7. Original Installation Code Edition: : 1974 Edition, Winter 1975 Addenda
8. Work Description: MODIFY PIPE SUPPORTS 1SI-240-H-00A & 1SI-248-H-00B
9. ☐ ISI Flaw NDE Method of Flaw Detection: N/A
PA Report Number: N/A
10. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
 DMWO : S3-2541285

11. Repair/Replacement Work Organization: Bechtel Construction Inc.
12. Replacement Items Construction or reconciled Code/Edition: 1974 Edition, Winter 1975 Addenda
13. Repair/Replacement Activity Construction Code/Edition: 1974 Edition, Winter 1975 Addenda
14. ASME Section XI Code/Edition: 1992 Edition, 1992 Addenda

15. Preservice Inspection Required: ☐ YES ☒ NO

Initial DDH Date 10-30-05 If required, include a step in the W.O. to perform Preservice Inspection

16. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial DSP Date 10/29/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 10/29/05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 10/29/05 18. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1SI-240-H-00A (ITEM 70A)	N/A	N/A	Q1W8	MRP# 02367
1SI-248-H-00B (ITEM 1G)	N/A	N/A	2M94	MRP# 02367
1SI-248-H-00B (ITEM H)	N/A	N/A	ADNG	MRP# 02367
1SI-248-H-00B (ITEM 1F)	N/A	N/A	2M94	MRP# 02367
1SI-248-H-00B (ITEM 1J)	N/A	N/A	2M94	MRP# 02367
	N/A	N/A		
	N/A	N/A		

19. Planner Dale S. Preslar 10/29/05 Signature Date Printed Name: Dale S. Preslar

20. ISI DSP 10-30-05 Signature Date Printed Name: Hansen
 1099ED DBH

21. ANII RG 10-30-05 Signature Date Printed Name: RG. HOGSTROM

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/07/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2779306
Address Work Order Number

3. Work Performed by Arizona Public Service Company Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Expiration Date N/A
Address

4. Identification of System SI

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
SUPPORT	NA	NA	NA	1SI240H00A	NA	Replacement	No
SUPPORT	NA	NA	NA	1SI248H00B	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Modified to include an ITEM 70 on support 1SI240H00A and modified steel on 1SI248H00B per
DIWO # 2779306

DMWO # S3-2541285

WP&IR # P-PSM-451

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules
of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DBH - ENGR Date 11-7-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-8-05 to 11-07-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

William E Huber
Inspector's Signature

Commissions VA 558 R
National Board, State, Province, and Endorsements

Date 11-7-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of

1. Component ID 1SI-156-H-00A & 1SI-156-H-00B 2. Code Class: ASME Section III, Class 1 Subsection NF
3. Item Description: SAFETY INJECTION PIPE SUPPORTS
4. N-5 Data Package Number: 5. W.O. Number: DIWO : 2779307
6. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
7. Original Installation Code Edition: : 1974 Edition, Winter 1975 Addenda
8. Work Description: MODIFY PIPE SUPPORTS 1SI-156-H-00A & 1SI-156-H-00B
9. ☐ ISI Flaw NDE Method of Flaw Detection: N/A
μ* Report Number: N/A
10. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
 DMWO : S3-2541285

11. Repair/Replacement Work Organization: Bechtel Construction Inc.
12. Replacement Items Construction or reconciled Code/Edition: 1974 Edition, Winter 1975 Addenda
13. Repair/Replacement Activity Construction Code/Edition: 1974 Edition, Winter 1975 Addenda
14. ASME Section XI Code/Edition: 1992 Edition, 1992 Addenda
15. Preservice Inspection Required: ☐ YES ☒ NO

Initial DNH Date 10-30-05 If required, include a step in the W.O. to perform Preservice Inspection

16. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial DSF Date 10/29/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSF Date 10/29/05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSF Date 10/29/05 18. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1SI-156-H-00A (ITEM 70A)	N/A	N/A	DIWB	MR2-02367
1SI-156-H-00B (ITEM 70A)	N/A	N/A	DIWB	MR2-02367
	N/A	N/A		
	N/A	N/A		
	N/A	N/A		
	N/A	N/A		
	N/A	N/A		

19. Planner D.S. Preslar Signature Date 10/27/05 Printed Name: 10/Date S. Preslar

20. ISI DSF Signature Date Printed Name: D.S. Hansen

21. ANII DSF Signature Date 10-3-05 Printed Name: DSF by R6 HOGSTROM

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/02/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2779307
Address Work Order Number

3. Work Performed by Arizona Public Service Company Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Expiration Date N/A
Address

4. Identification of System SI

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
SUPPORT	NA	NA	NA	1SI156H00A	NA	Replacement	No
SUPPORT	NA	NA	NA	1SI156H00B	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Modified to include an ITEM 70 on supports 1SI156H00A and B per DIWO # 2779307

DMWO # S3-2541285

WP&IR # P-PSM-453

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed  ENGR Date 11-2-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 NC and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-12-05 to 11-2-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

 Commissions NC 853 N-I
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-2-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01A
- 2.. Item Description: Vortex Plate
3. N-5 Data Package Number: 1RC01-1A Summary W.O. Number: 2780920
5. Original Construction Code Edition: 1974 Edition, Winter 1974 Addenda DOB 11-10-05
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Welding in of Vortex Plate per WPIR P-VOR-459
8. ☐ ISI Flaw NA NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
2754516 THE SUITABILITY AND EVALUATION FOR THIS MODIFICATION IS DOCUMENTED ON RMWD 2754516. DOB 11-10-05

10. Repair/Replacement Work Organization: Bechtel Construction 1974 Ed 75 W Ad
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1989 Edition, No Addenda DOB 11-8-05
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DOB Date 11-2-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial DSP Date 11/02/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 11/02/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 11/02/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
<u>900423-001</u>	<u>NA</u>	<u>NA</u>	<u>NX4604HK</u>	<u>MPP# 02556</u> <u>02807 PFS</u> <u>11/8/05</u>

18. Planner Dale S. Preslar 11/02/05 Printed Name: Dale S. Preslar
Signature Date
19. ISI DSP 11-2-05 Printed Name: Hansen Log Entr DOB
Signature Date
20. ANII RD Klein 11-2-05 Printed Name: RD KLEIN
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 11/08/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2780920
Address Work Order Number

3. Work Performed by Bechtel Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Expiration Date N/A
Address

4. Identification of System RC

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Vortex Plate	NA	NA	NA	1PRCEL032	05	Replacement	Yes

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Install the vortex plate in the RCS Hot Leg Line 1PRCEI032 per DMWO2754516 / DIWO
2780920 and WPIR P-VOR-459

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed TJSH- ENGR Date 11-10-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 11-3-05 to 11-10-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

William S. Hoken
Inspector's Signature

Commissions VA 558 R
National Board, State, Province, and Endorsements

Date Nov-10-2005

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12-8-05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2785706

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Borg Warner	31969	1000	1PSIEV542	1978	Repaired	YES
Disc	Borg Warner	8	N/A	Code 2G70	1978	Replaced	YES
Disc	Borg Warner	10	N/A	Code 3L96	1979	Replacement	YES

7. Description of Work: Replace the disc as required to correct seat leakage

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PSIEV542
- 2.. Item Description: HPSI / LPSI Header Loop Injection Check Valve
3. N-5 Data Package Number: 1RC01-1C 4. W.O. Number: 2785706
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace valve parts as required to correct seat leakage
8. ☐ ISI Flaw NDE Method of Flaw Detection:

Report Number:

9. Evaluation of the suitability of this work as per the requirements of IWA - 4150: ASME NOT REPLACED
Replacements of items (Bonnet, disc etc.) to 12/13
correct seat leakage. No failure of pressure 12/8/05
retaining items. RP Indap 5/31/05

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 1, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial W/K Date _____ If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☒ NO 12/13/05

Initial J.D. Date 5-31-05 If required, include a step in the W.O. for ISI & ANII Inspection.Initial J.D. Date 5-31-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.Initial J.D. Date 5-31-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Disc	PIN 76864	10	CODE 3296	2785706-1A 30-05
				W.O. 2823497

18. Planner J. I. Davis - 5-31-05 Signature _____ Date _____ Printed Name: James I. Davis19. ISI RP Indap 5/31/05 Signature _____ Date _____ Printed Name: R.P. INDAP Log Entry RPD20. ANII R.G. Houston 6-3-05 Signature _____ Date _____ Printed Name: R.G. Houston

FORM NIS-2 (Back)

9. Remarks: WO 2785706 removed the existing disc and installed the disc originally installed in 2PSIEV542, removed by WO 2721744 and reworked by WO 2823497.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Morrow ISI Engineer Date: 12/8/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 6-3-05 to 12-8-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS Lipton
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 12-8-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page _____ of _____

1. Component ID 1JCHELV0110P
2. Item Description: Letdown Control Valve
3. N-5 Data Package Number: 1CH15-1
4. W.O. Number: 2786310
5. Original Construction Code Edition: 1974 Edition, Summer 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace the valve stem and plug assembly to correct valve performance.
8. ☐ ISI Flaw. NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Replacement to correct valve performance. No failure in the ASME boundary.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III CI 2, 1974 Edition Summer 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III CI 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial N/A Date _____ If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial N/A Date _____ If required, include a step in the W.O. for ISI & ANII Inspection.

Initial J.A Date 6-10-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial J.A Date 6-10-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Stem and Plug Assembly	APN 45160188	AC3595-2	N/A	MR 981959

18. Planner [Signature] 6-10-05 Printed Name: James I. Davis

19. ISI RAMAKANT INOAP PER TELECON 6-10-05 Printed Name: R. INOAP Log Entry _____

20. ANII ROBERT HOGSTROM PER TELECON 6-10-05 Printed Name: ROBERT HOGSTROM

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/01/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2786310

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: CH: Chemical and Volumn Control System

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Summer 1975 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Fisher Control	6551332	4501	1JCHEL V0110P	1979	Repaired	YES
Stem & Plug Assembly	Fisher Controls	AC3595-2	N/A	1JCHEL V0110P	2003	Replacement	YES

7. Description of Work: Disassembled valve to inspect internals and repack.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

Remarks: Work order# 2786310 for valve 1JCHELV0110P was dissassemble for inspection and repack. The plug was found worn and was replaced with a spare plug/stem assembly.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: R. P. Pordap Consulting Metallurgical Engineer Date: 11-2-2005
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 6-10-05 to 11-2-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

R. P. Pordap
Inspectors Signature

Commissions: NB 9605 "A.N.I.C" Az. 264
National Board, State, Province, and Endorsements

Date: 11-2-05

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

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

Pg. 1 of 1

00260277 B#1

019-F502906

1. Manufactured and certified by FISHER CONTROLS INT'L INC., 205 SOUTH CENTER STREET, MARSHALLTOWN, IA. 50158
(name and address of NPT Certificate Holder)
2. Manufactured for Arizona Public Service Co, PO Box 53940, Phoenix, AZ 85072
(name and address of purchaser)
3. Location of installation Palo Verde Nuclear Station, 4 Miles South of Wintersburg Rd, Palo Verde, AZ 85343
(name and address)
4. Type 14A3722 Rev. C SA479 S31603 70 KSI N/A 2003
(drawing no.) (mat'l spec. no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III: 1974 Summer 1975 2 N/A
(edition) (addenda date) (class) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks: Design: ASME BPVC Sec III, 1974 Edition, Summer 1975 Addenda, Class 2
Other: ASME BPVC Sec III, 1989 Edition, No Addenda, Class 2
8. Nom. thickness (in.) N/A Min. design thickness (in.) N/A Dia. ID (ft & in.) N/A Length overall (ft & in.) N/A
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	Heat Number
(1) <u>AC3595-1</u>	<u>714641</u>
(2) <u>AC3595-1218</u>	<u>714641</u>
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
(14)	
(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

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

Design Pressure 2485 psi. Temp. 550 °F. Hydro. test pressure N/A at temp. °F
(when applicable)

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

CERTIFICATION OF DESIGN

Specifications certified by T. L. Kettles P.E. State NY Reg. no. PE029729
 (when applicable)

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

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization No. 1930 Expires 11-11-2004

Date 4-10-03 Name FISHER CONTROLS INT'L INC Signed Linda Ward
 (NPT Certificate Holder) (authorized representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or Province of Iowa
 and employed by Hartford Steam Boiler of CT
 of Hartford, CT have inspected these items described in this Data Report on 4-10-03 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. Further
 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.

4-10-03 Signed [Signature] Commissions P22 IA.
 (Authorized Inspector) (Nat'l Bd. (incl. endorsements) state or prov. and no.)

Page 1 of 1

73DP-9ZZ17 Rev 9

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12/16/05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2791139

3. Work Performed by: Arizona Public Service Co.

Type of Code Stamp None

5801 S. Wintersburg Rd., Tonopah, Arizona, 85354-7529

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Borg-Warner	26222	613	1PSIEV247	1977	Repaired	Yes
Disc	Borg-Warner	211972-1	N/A	RS211930-1	1991	Replaced	Yes
Bonnet	Borg-Warner	6	N/A	2E76	1977	Replaced	Yes
Disc	Borg-Warner	12	N/A	2X44	1978	Replacement	Yes
Bonnet	Borg-Warner	23	N/A	2X71	1991	Replacement	Yes

7. Description of Work: Replaced the bonnet and disc assembly to correct seat leakage.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ N-416-2 ☐

Other ☐ Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order 2791139 installed the bonnet, arm and disc assembly originally installed in 2PSIEV247, removed by Work Order 2726216 and refurbished by Work Order 2822087.

Pre-Pressure Test Work Order Review: ISI: Alan Monow 12/19/05

ANII: RS 12-19-05

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A

Certificate of Authorization No. _____ N/A Expiration Date: _____ N/A

Signed: W. B. B. Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 9-28-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS
Inspectors Signature

Commissions: NS 9685 "A.N.I.C." Az 264
National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1SG033H011, 1SG033H017, 1SG036H011
- 2.. Item Description: Main Steam Supports 01-SG-033-H-011, 01-SG-033-H-017, 01-SG-036-H-011
3. N-5 Data Package Number: 1SG01-1A
4. W.O. Number: DIWO-2798106
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: DFWO-2788864, WPIR P-MSH-455 Modification of three existing Main Steam piping supports
8. ☐ ISI Flaw NA NDE Method of Flaw Detection: N/A
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DFWO-2788864

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: ASME III CL 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: ASME III CL 2, 1974 Edition, Winter 1975 Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DSP Date 9-8-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☒ NO
DSP
Initial DSP Date 9/8/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DSP Date 9/8/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DSP Date 9/8/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1SG033H011	Item 1, 9 SE 12-12-05			
1SG033H017	Item 1 SE 12-12-05			
1SG036H011	Item 1, 9	VS-1644, 2005-45 2005-46	VS-1644	MRR 02314 MRR 02617

18. Planner Dale S. Preslar 9/8/05 Printed Name: Dale S. Preslar
Signature Date

19. ISI DSP 9-8-05 Printed Name: HARSEN Log Entry DOIT
Signature Date

20. ANII R.G. Hogstrom 9-8-05 Printed Name: R.G. HOGSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12/13/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2798106

3. Work Performed by: Bechtel Construction

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SG

5. (a) Applicable Construction Code ASME Section III NF, Class 2 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Item 1	Anvil	2005-45	N/A	1-SG-036-H011	2005	Replacement	Yes
Item 1	Anvil	2005-46	N/A	1-SG-036-H011	2005	Replacement	Yes
Item 9	N/A	N/A	N/A	1-SG-036-H011	2005	Replacement	No
Support	N/A	N/A	N/A	1-SG-033-H011	2005	Repaired	No
Support	N/A	N/A	N/A	1-SG-033-H017	2005	Repaired	No

7. Description of Work: New rear end brackets and a new support rod were installed for support 1-SG-036-H011. Weld size increased on supports 1-SG-033-H011 and 1-SG-033-H017.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-2 ☐

Other ☐

Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. DFWO #: 2788864, DIWO# 2798106, WP & IR #: P-MSH-455

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow IST Engineer Date: 12/13/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 9-8-05 to 12-13-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RD [Signature] Commissions: Az 264 "A.N.I.C."
Inspectors Signature National Board, State, Province, and Endorsements

Date: 12-13-05

FORM NF-1 CERTIFICATE HOLDERS' DATA REPORT FOR COMPONENT SUPPORTS*

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

1. Manufactured by Anvil International, Inc. - 160 Frenchtown Rd. Nc.Kingstown, RI 02852
(name and address of NPT Certificate Holder)

2. Manufactured for Arizona Public Service Co. Palo Verde 5801 South Wintersburg Road Tonopah, AZ 85354
(name and address of Purchaser)

3. Location of Installation Arizona Public Service Co. Palo Verde 5801 South Wintersburg Road Tonopah, AZ 85354
(name and address)

4. Type: C.S.S. DRS 66 REV.9 2005
(describe) (Design Report or Load Capacity Data Sheet) (year built)

5. ASME Code, Section III, Division 1:	1974 (edition)	Winter 1975 (addenda date)	2 (class)	N/A (Code Case no.)
--	-------------------	-------------------------------	--------------	------------------------

6. Identification

	(a) Component Support I.D. No.	(b) Material Specification No.	(c) Canadian Registration No.	(d) Applicable Drawings With Last Rev. & Date	(e) National Board No.
(1)	2005- 45	SA36	N/A	066-10025/F 3/20/00	N/A
(2)	2005- 46	SA36	N/A	066-10025/F 3/20/00	N/A
(3)	2005- 47	SA36	N/A	066-10025/F 3/20/00	N/A
(4)	2005- 48	SA36	N/A	066-10025/F 3/20/00	N/A
(5)	2005- 49	SA36	N/A	066-10025/F 3/20/00	N/A
(6)	2005- 50	SA36	N/A	066-10025/F 3/20/00	N/A
(7)					
(8)					
(9)					
(10)					

7. Remarks: _____

PO#: 500289081 Rev.01

SO#: 41-70575

*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 1 through 4 on this Data Report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(12/88)

This form (E00075) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1SG042H011, 1SG045H011, 1SG045H017
2. Item Description: Main Steam Supports 01-SG-042-H-011, 01-SG-045-H-011, 01-SG-045-H-017
3. N-5 Data Package Number: 1SG01-1A 4. W.O. Number: DIWO-2798106-12-14-05 2798110
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: DFWO-2788864 WPIR P-MSH-456 Modification of three existing Main Steam piping supports
8. ☐ ISI Flaw NA NDE Method of Flaw Detection: N/A 12-14-05
Report Number: N/A
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
DFWO-2788864

10. Repair/Replacement Work Organization: Bechtel Construction
11. Replacement Items Construction or reconciled Code/Edition: ASME III CL 2, 1974 Edition, Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: ASME III CL 2, 1974 Edition, Winter 1975 Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☒ YES ☐ NO

Initial DDH Date 9-8-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☒ NO

Initial DDP Date 9/8/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DDP Date 9/8/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DDP Date 9/8/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
1SG042H011	<u>ITEM 1-9</u>	<u>2005-47</u> <u>2005-48</u>	<u>APR APR</u> <u>000 90366 P02</u>	<u>ITEM 1 MW 02319/MW 02317</u> <u>1-9</u>
1SG045H011	<u>Item 1-9</u>			
1SG045H017	<u>Item 1</u>			

18. Planner Dale S. Preslar 9/8/05 Printed Name: Dale S. Preslar
Signature Date

19. ISI DDH 9-8-05 Printed Name: D. S. Hansen Log Entry DDH
Signature Date

20. ANII R. G. Hoagstrom 9-8-05 Printed Name: R. G. Hoagstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al. Date: 12/14/2005
P. O. Box 53999, Phoenix Arizona 85072-2034 Sheet: 1 of 2
2. Plant: Palo Verde Nuclear Generating Station Unit: 1
5801 South Wintersburg Road., Tonopah, Arizona 85354-7529 Work Order Number 2798110
3. Work Performed by: Bechtel Construction Type of Code Stamp None
Authorization No. N/A
Expiration Date N/A

4. Identification of System: SG

5. (a) Applicable Construction Code ASME Section III NF, Class 2 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Item 1	Anvil	2005-47	N/A	1-SG-042-H011	2005	Replacement	Yes
Item 1	Anvil	2005-48	N/A	1-SG-042-H011	2005	Replacement	Yes
Item 9	N/A	N/A	N/A	1-SG-042-H011	2005	Replacement	No
Support	N/A	N/A	N/A	1-SG-045-H017	2005	Repaired	No

7. Description of Work: New rear end brackets and a new support rod were installed for support 1-SG-042-H011. Weld size increased on support 1-SG-045-H017. No welding done on 1-SG-045-H017 (listed on Section XI Repair/Replacement form) as existing welds were acceptable as found.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-2 ☐
Other ☐ Pressure _____ psi Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. DFWO #: 2788864, DIWO# 2798110, WP & IR #: P-MSH-456

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A

Certificate of Authorization No. _____ N/A Expiration Date: _____ N/A

Signed: Alan Monow ISI Engineer Date: 12/14/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 9-8-05 to 12-14-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS Hyman
Inspectors Signature

Commissions: Az 264 "A.N.I.C"
National Board, State, Province, and Endorsements

Date: 12-14-05

Page 1 of 2

8. ☐ ISI Flaw

Report Number:

Not a failure of the ASME pressure boundary. Seal weld is required to be removed to allow for valve disassembly.

☐ YES☒ NO☐ YES☒ NO

Initial 1249 Date 8-18-25 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

20. ANII R. G. Hogstrom 9-7-05 Printed Name: R. G. HOGSTROM
Signature Date

Page 2 of 2

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/17/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2808583

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: CH: Chemical & Volumn Control System

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Borg Warner	26949		1PCHNV341	1978	Repaired	YES
Seal Weld	N/A	N/A	N/A	1PCHNV341	2005	Replacement	NO
Gate	Borg Warner	1917	N/A	1PCHNV341	1985	Replacement	YES

7. Description of Work: Disassemble valve to correct seat leakage.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Per wo# 2808583 on valve IP CHV34, the body to bonnet seal weld will need to be removed to disassemble the valve to correct seat leakage. The gate will also be replaced to improve seating performance. Following rework the seal weld will be replaced.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Morrow ISI Engineer Date: 11/17/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 9-7-05 to 11-17-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL Signature
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 11-17-05

REF NO: 195018

823507-A

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

Page 1 of 1

1. Manufactured and certified by Nuclear Valve Division of Borg Warner, 7500 Tyrone Avenue, Van Nuys, CA 91409
2. Manufactured for Combustion Engineering, P.O. Box 488, Windsor, Conn. 06095
3. Location of installation Arizona Public Services, Palo Verde, Arizona
4. Type 70438 SA 351 CF8M 80:124 N/A 1985
5. ASME Code, Section III: 1914 Winter 75 N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Section III N/A N/A
7. Remarks: Parts supplied herein may not have the NPT symbol stamp due to size or other considerations as allowed in NCA-8230.

8. Nom. thickness (in.) N/A Min. design thickness (in.) N/A N/A N/A
9. When applicable, Certificate Holders' data reports are attached for each item of this report: N/A

Part or Appurtenance Serial Number	National Board No. In Numerical Order	Part or Appurtenance Serial Number	National Board Number In Numerical Order
Gate			
(1) N/C 5B96 S/N 1917	N/A	(26)	
(2)		(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

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

*Supplemental information in form of test, chemical, or other data may be used provided (1) data is in the form of a report or certificate, (2) data is in the form of a report or certificate, and (3) data is in the form of a report or certificate. This form (NCA-8230) may be obtained from the Code Book, ASME, 345 E. 47th St., New York, N.Y. 10017

10501

CERTIFICATE OF ORIGIN

Design specifications obtained by _____

Design report certified by _____

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that the financial statements and supporting schedules conform to the rules of construction of the ASME Code, Section II.

ASME Certificate of Authorization no. NPT-1245 SAE

Date: 2/18/85 Name: NVD of Borg Warner

1997 Graham Award

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 of California and employed by Lumbermen's Mutual Casualty of Long Grove, IL have inspected these items described in this report on page 19/85 and sign this to the best of my knowledge and belief. The Certificate Holder has taken the necessary steps to ensure that all parts or appendances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the parts shown above.

By signing this certificate, neither the Inspector nor his employee makes any warranty, expressed or implied, concerning the equipment described in this data report. Furthermore, neither the Inspector nor his employee 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: 2/19/85 Signed: [Signature] (25) 1225-04

Commissions 1276-84

Page 1 of 2

73DP-972-17 Rev 9

ASME SECTION XI - REPAIR / REPLACEMENT

Page 2 of 2

1. Component ID 1PCHBL521, 1PCHAL520, 1PCHEL008
2. Item Description: 2" Class 1 and 2 piping spool on both sides of 1JCHBHV0203 and 1JCHAHV0205.
3. N-5 Data Package Number: 1RC03-1, 1CH15-3 4. W.O. Number: 2813828
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Install new piping on both sides of 1JCHBHV0203 and 1JCHAHV0205 including the installation of the new valves.

8. ☐ ISI Flaw

NDE Method of Flaw Detection:

Report Number:

9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:

Not an ASME pressure boundary failure. This work will install two new solenoid valves with an improved bolted bonnet design.

10. Repair/Replacement Work Organization: Arizona Public Service

11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
Sec. III Cl 2, 1974 Edition 1974 Winter Addenda

12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
Sec. III Cl 2, 1974 Edition 1974 Winter Addenda

13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☒ YES ☐ NO

Initial me Date 9/28/05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial me Date 9/28/05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial me Date 9/28/05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial me Date 9/28/05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
2" Class 1 Pipe	APN 43510642	n/a	3707H	MR 863835
2" Class 1 Pipe	APN 43510642	#92828	<u>34913</u>	MR 1007886
2" Class 1 Elbow	APN 43540857	n/a	<u>3255</u>	MR 1007886
2" Class 1 Pipe Bent 92°	APN 00092828		<u>34913</u>	MR 1007886
2"X2"X1" Class 1 Tee	APN 00092827		<u>NDX6</u>	MR 1007886
2" Class 1 Tee	APN 00092363		<u>NDX4</u>	MR 1007886
1" Class 1 Pipe	APN 43510515		<u>449272</u>	MR 1007886
1" Class 1 Elbow	APN 43540858		<u>LTm2-1</u>	MR 1007886
1JCHBHV0203	APN 00089454			MR
1JCHAHV0205	APN 00089454			MR
2" Class 2 Pipe Bent 90°	APN 00092360		<u>34913</u>	MR 1007886
2" Class 2 Pipe	APN 43510414	#92360	<u>34913</u>	MR 1007886
2" Class 2 Tee	APN 43530181		<u>NDm6</u>	MR 1007886
2"X2"X1" Class 2 Tee	APN 43530204		<u>MEW4-1</u>	MR 1007886

18. Planner Glenn E. Moore 9/28/05 Printed Name: Glenn E. Moore

19. ISI R.P. Indar 9/29/05 Printed Name: R.P. Indar Log Entry R.P.

20. ANII Robert Hogstrom 9-30-05 Printed Name: Robert Hogstrom

* This WAS CUT From APN # 92828 D/E 10-1-5
* This WAS CUT From APN # 92360 D/E 10-1-5

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

As Required by the Provisions of the ASME Code Section XI

Owner: Arizona Public Service Company, et. al.

Date: 12-16-05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2813828

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: CH (Chemical Volume Control System)

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, N/A Code Case
ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
1JCHBHV0203	Target Rock	1	N/A	1JCHBHV0203	1978	Replaced	Yes
CHBHV0203	Target Rock	35	N/A	1JCHBHV0203	2005	Replacement	Yes
1JCHAHV0205	Target Rock	2	N/A	1JCHAHV0205	1978	Replaced	Yes
1JCHAHV0205	Target Rock	36	N/A	1JCHAHV0205	2005	Replacement	Yes
2" Class 1 Pipe	N/A	N/A	N/A	Ht. # 3707H	2005	Replacement	No
2" Class 1 Pipe	N/A	N/A	N/A	Ht. # 34913	2005	Replacement	No
2" Class 1 Elbow	N/A	N/A	N/A	Ht. # JZSS	2005	Replacement	No
2" Class 1 Pipe Bent 92°	N/A	N/A	N/A	Ht. # 34913	2005	Replacement	No
2"X2"X1" Class 1 Tee	N/A	N/A	N/A	Ht. # NDXG	2005	Replacement	No
2" Class 1 Tee	N/A	N/A	N/A	Ht. # NDXH	2005	Replacement	No
1" Class 1 Pipe	N/A	N/A	N/A	Ht. # 449272	2005	Replacement	No
1" Class 1 Elbow	N/A	N/A	N/A	Ht. # LTMZ-1	2005	Replacement	No
2" Class 2 Pipe Bent 90°	N/A	N/A	N/A	Ht. # 34913	2005	Replacement	No
2" Class 2 Pipe	N/A	N/A	N/A	Ht. # 34913	2005	Replacement	No
2" Class 2 Tee	N/A	N/A	N/A	Ht. # NDMG	2005	Replacement	No
2"X2"X1" Class 2 Tee	N/A	N/A	N/A	Ht. # MEWY-1	2005	Replacement	No

7. Description of Work: Replace piping to facilitate the replacement of seal welded solenoid valves with bolted bonnet solenoid valves 1JCHAHV0205 and 1JCHBHV0203.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
N-416-2 ☒ Other Pressure _____ psi Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

Remarks: Piping to be replaced to facilitate the replacement of seal welded solenoid valves with bolted bonnet solenoid valves 1JCHAHV0205 and 1JCHBHV0203 IAW DMWO 2782802

Pre-Pressured Test WO Review – ISI Alan Monow 12/6/05

ANII RS [Signature] 12-16-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 8-21-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RS [Signature]
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JCHBHV02(3 / 1JCHAHV0205
2. Item Description: VALVE (APN 00089454)
3. N-5 Data Package Number: 1RC03-1
4. W.O. Number: 2813828
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: REMOVE AND REPLACE VALVE WITH APN 00089454
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
NOT an asme pressure boundary failure, this work will replace two solenoid valves with two new solenoid valves apn 00089454

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: SEC III CL1 1989 EDITION, NO ADDENDA
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial REO Date 12/14/05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial REO Date 12/14/05 If required, include a step in the W.O. for ISI & ANII Inspection.

16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
valve 1jchbbhv0203	apn 00089454	35	34879	MR 01008920-0005
bonnet 1jchbbhv0203	303123-2	92	h 4143	MR 01008920-0005
disc 1jchbbhv0203	303184-1	144	snoyg	MR 01008920-0005
valve 1jchahv0205	apn 00089454	36	34879	MR 01008918-0003
bonnet 1jchahv0205	303123-2	85	a18292	MR 01008918-0003
disc 1jchahv0205	303184-1	138	27772	MR 01008918-0003

18. Planner G. Osmundson 12-14-05 Printed Name: G. OSMUNDSON
Signature Date
19. ISI Alan Morrow 12/14/05 Printed Name: Alan Morrow Log Entry am
Signature Date
20. ANII Robert G. Hogstrom 12-14-05 Printed Name: ROBERT G. HOGSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12/14/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2813828

3. Work Performed by: Arizona Public Service Company

Type of Code Stamp None

5801 S. Wintersburg Rd., Tonopah, Arizona, 85354-7529

Authorization No. N/A

Expiration Date N/A

4. Identification of System: 1RC03-1

5. (a) Applicable Construction Code ASME Section III NB, Class 1

1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Target Rock	1	N/A	1JCHBHV0203	1978	Replaced	Yes
Valve	Target Rock	35	N/A	1JCHBHV0203	2005	Replacement	Yes
Valve Disc	Target Rock	144	N/A	1JCHBHV0203	2005	Replacement	No
Valve Bonnet	Target Rock	92	N/A	1JCHBHV0203	2005	Replacement	No
Valve	Target Rock	2	N/A	1JCHAHV0205	1978	Replaced	Yes
Valve	Target Rock	36	N/A	1JCHAHV0205	2005	Replacement	Yes
Valve Disc	Target Rock	138	N/A	1JCHAHV0205	2005	Replacement	No
Valve Bonnet	Target Rock	85	N/A	1JCHAHV0205	2005	Replacement	No

7. Description of Work: Replace valves with new valves APN 00089454.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ N-416-2 ☐

Other ☐

Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: W.O. 2813828 installed replacement valves 1JCHBHV0203 & 1JCHAHV0205. Valves were disassembled & reassembled under W.O. 2813835 for 1JCHAHV0205 and W.O. 2813833 for 1JCHBHV0203.

Pre-Pressure Test Review : ISI Alan Monow 12/14/05

ANI 25 System 12-14-05

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 12-14-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

25 System Commissions: Az 264 "A.N.I.C."
Inspectors Signature National Board, State, Province, and Endorsements

Date: 12-20-05

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

Pg. 1 of 2

1. Manufactured and certified by Target Rock; 1966E Broadhollow Rd.; E. Farmingdale, NY 11735
(name and address of N Certificate Holder)
2. Manufactured for Arizona Public Service Co.; Phoenix, AZ 85072
(name and address of Purchaser)
3. Location of installation Palo Verde Nuclear Generating Station; Wintersburg, AZ 85343
(name and address)
4. Model No., Series No., or Type 98F-002 Drawing 98F-002 Rev. B CRN N/A
5. ASME Code, Section III, Division 1: 1989 None 1 None
(edition) (addenda date) (class) (Code Case no.)
6. Pump or valve Valve Nominal inlet size 2 Outlet size 2
(in.) (in.)
7. Material: Body SA182 F316 Bonnet SA479 XM-19 Disc SA564 630 Bolting SA453 660

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disc Serial No.
35	N/A	139	92	144
* 36		140	85	138

D/P-PV15
BLDG:U-1-MOVATS
QTY:1-BOX-1-VALVE
MR#01008918
REQ:CHUCK-LARSON

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

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

Certificate Holder's Serial No. 98F-002 s/n 35 & 36

8. Design conditions 2735 psi 650 °F or valve pressure class N/A (1)
(pressure) (temperature)
9. Cold working pressure 4435 psi at 100 °F
10. Hydrostatic test 6675 psi. Disc differential test pressure N/A psi
11. Remarks: Indicator Tube SA-479 316, S/N's 5197 & 5265
Clamp Ring SA-479 XM-19, S/N's 86 & 76

CERTIFICATION OF DESIGN

Design Specification certified by Jose Aquila Daza P.E. State AZ Reg. No. 24485Design Report certified by Not Applicable P.E. State - Reg. No. -

CERTIFICATE OF COMPLIANCE

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

N Certificate of Authorization No. N-1947 Expires 12/12/2007Date 8/23/2005 Name Target Rock Signed R. E. Glazier
(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 of Province of New York and employed by OneBeacon America Insurance of Boston, MA have inspected the pump, or valve, described in this Data Report on 8/23/2005 and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

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

Date 8/23/05 Signed [Signature] Commissions N.Y. 5102
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

Page _____ of _____

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 08/15/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2813917

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SI: Safety Injection

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Borg-Warner	27601	N/A	1PSIAV522	1978	Repaired	YES
Disc	Borg-Warner	4	N/A	1Q90	1978	Replaced	YES
Bonnet	Borg-Warner	2	N/A	1Q89	1978	Replaced	YES
Disc	Borg-Warner	30	N/A	1U92	1979	Replacement	YES
Bonnet	Borg-Warner	3	N/A	1Q89	1979	Replacement	YES

7. Description of Work: Disassemble 3" check valve to correct seat leakage.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure psi

Test Temperature °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Per wo# 2813917 valve 1PSIAV522 was disassembled to correct seat leakage. The spare bonnet, arm & disc assembly was installed to expedite the work. This assembly was reconditioned under WM# 2651519 and obtained from valve 2PSIBV532 under WM# 2585437..

Pre-Pressured Test WO Review – ISI _____

ANII _____

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A _____

Certificate of Authorization No. _____ N/A _____ Expiration Date: _____ N/A _____

Signed: [Signature] ISI ENGINEER Date: 8-17-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 7-27-05 to 8-17-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's report. Furthermore, neither the Inspector nor his employer shall be 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]
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 8-17-05

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01A 2. Code Class ASME Section III, Class 2
3. Item Description Replacement Steam Generator #1 / SN# 224
4. N-5 Package Number 1RC01-4 5. W.O. Number 2821880
6. Original Construction Code Edition 1971 Edition, Winter 1973 Addenda
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Install new Secondary Manway and Handhole studs and nuts into the replacement Steam Generator #1, per work DIWO# 2821880 instructions.
9. ☐ ISI Flaw NDE Method of Flaw Detection N/A
Report Number N/A
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
Work order #2821880 supports the new steam generator installation.
11. Repair/Replacement Work Organization Arizona Public Service
12. Replacement Item Construction or reconciled Code/Edition ASME Section III, 1989 Edition, No Addenda
13. Repair/Replacement Activity Construction Code/Edition ASME Section III, 1989 Edition, No Addenda
14. ASME Section XI Code/Edition 1992 Edition and 1992 Addenda
15. Preservice Inspection Required. ☐ YES ☒ NO
SE 10-6-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date

16. ASME Section XI Pressure Test Required ☒ YES ☐ NO
SE 10-6-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date
- SE 10-6-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date
- SE 10-6-05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.

19. Planner Steven R. Eich 10-6-05 Print Name Steven R. Eich
Signature Date

20. ISI Engineer DBH 10-9-05 Print Name D.B. Hansen
Signature Date LOGGED DBH

21. ANII R.D. Klein 10-10-05 Print Name R.D. KLEIN
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 10/06/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2821880
Address Work Order Number

3. Work Performed by Arizona Public Service Company Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Expiration Date N/A
Address

4. Identification of System (SG)

5. (a) Applicable Construction Code ASME Sect III CL 2 19 89 Edition, NO Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Secondary studs/nuts						Replacement	No
Handhold studs/nuts						Replacement	No

7. Description of Work Install sec. manway & handhole studs/nuts RSG #1/SN# 224, per DIWO# 2821880

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Work includes the installation of the secondary manway & handhole covers on 1MRCEE01A
(RSG #1) with new studs and nuts per DIWO# 2821880.
- _____
- _____
- _____
- _____

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed _____ Date _____
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period _____ to _____, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Date _____

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01B 2. Code Class ASME Section III, Class 2
3. Item Description Replacement Steam Generator #2 / SN# 225
4. N-5 Package Number 1RC01-4 5. W.O. Number 2821883
6. Original Construction Code Edition 1971 Edition, Winter 1973 Addenda
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Install new Secondary Manway and Handhole studs and nuts into the replacement Steam Generator #2, per work DIWO# 2821883 instructions.
9. ☐ ISI Flaw NDE Method of Flaw Detection N/A
Report Number N/A
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
Work order #2821883 supports the new steam generator installation.
11. Repair/Replacement Work Organization Arizona Public Service
12. Replacement Item Construction or reconciled Code/Edition ASME Section III, 1989 Edition, No Addenda
13. Repair/Replacement Activity Construction Code/Edition ASME Section III, 1989 Edition, No Addenda
14. ASME Section XI Code/Edition 1992 Edition and 1992 Addenda
15. Preservice Inspection Required. ☐ YES ☒ NO
- SE 10-6-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date

16. ASME Section XI Pressure Test Required ☒ YES ☒ NO DBH 12-2-05
- SE 10-6-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date
- SE 10-6-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date
- SE 10-6-05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.
00091192	STUDS	N/A	70705	500288140.09.001
00091193	NUTS	N/A	70705	500288140.10.001
00092423	STUDS	N/A	64694/03	500288-140.12.001
00091191	NUTS	N/A	0340336/03	500288140.08.001

19. Planner Steven R. Eich 10-6-05 Print Name Steven R. Eich
Signature Date
20. ISI Engineer DA21- 10-9-05 Print Name D. B. Hansen
Signature Date Logan DBH
21. ANII R.D. Klein 10-10-05 Print Name R.D. Klein
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/02/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2821883
Address Work Order Number

3. Work Performed by Arizona Public Service Company Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Expiration Date N/A
Address

4. Identification of System SG #2

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Manway Studs/Nuts	NA	NA	NA	Studs & Nuts	NA	Replacement	No
Handhole Studs/Nuts	NA	NA	NA	Studs & Nuts	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Work included installation of the secondary manway and handhole covers on 1MRCEE01B
(RSG2) with replacement studs and nuts
WO Number 2821883

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed *DAH* *ENGR* Date 12-2-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-10-05 to 12-2-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

William C. [Signature] Commissions VA 558 "R"
Inspector's Signature National Board, State, Province, and Endorsements

Date 12-2-05

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01A 2. Code Class ASME Section III, Class 1
3. Item Description Replacement Steam Generator #1 / SN# 224
4. N-5 Package Number 1RC01-4 5. W.O. Number 2821884
6. Original Construction Code Edition 1971 Edition, Winter 1973 Addenda
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Install new Primary Manway studs and nuts into the replacement Steam Generator #1, per work DIWO# 2821884 instructions.
9. ☐ ISI Flaw NDE Method of Flaw Detection N/A
Report Number N/A
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
Work order #2821884 supports the new steam generator installation.

11. Repair/Replacement Work Organization Arizona Public Service
12. Replacement Item Construction or reconciled Code/Edition ASME Section III, 1989 Edition, No Addenda
13. Repair/Replacement Activity Construction Code/Edition ASME Section III, 1989 Edition, No Addenda
14. ASME Section XI Code/Edition 1992 Edition and 1992 Addenda 74 N75 08H 11-29-05

15. Preservice Inspection Required. ☒ YES ☐ NO
- SE 10-6-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date

16. ASME Section XI Pressure Test Required ☒ YES ☐ NO 08H 11-29-05
- SE 10-6-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date

- SE 10-6-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date
- SE 10-6-05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.
92671	45-3	N/A	70705	1012227
92670	45-4	N/A	7692	1012227

19. Planner Steven R. Eich 10-6-05 Print Name Steven R. Eich
Signature Date

20. ISI Engineer D. B. Hansen 10-9-05 Print Name D. B. Hansen
Signature Date LOISKA POH

21. ANII R. D. Klein 10-10-05 Print Name R. D. Klein
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 09/29/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address
2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2821884
Address Work Order Number
3. Work Performed by Arizona Public Service Company Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Authorization No. N/A
Address Expiration Date N/A
4. Identification of System SG #1
5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Pri Studs/Nuts	NA	NA	NA	Studs & Nuts	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐
 Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Work included installation of the primary manway covers on 1MRCEE01A (RSG1) with
replacement studs and nuts

WO Number 2821884

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules
of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DAN Date 11-29-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 ARIZONA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-10-05 to 11-29-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RA [Signature] Commissions A2 264
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-29-05

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01B 2. Code Class ASME Section III, Class 1
3. Item Description Replacement Steam Generator #2 / SN# 225
4. N-5 Package Number 1RC01-4 5. W.O. Number 2821886
6. Original Construction Code Edition 1971 Edition, Winter 1973 Addenda
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Install new Primary Manway studs and nuts into the replacement Steam Generator #2, per work DIWO# 2821886 instructions.
9. ☐ ISI Flaw NDE Method of Flaw Detection N/A
Report Number N/A
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
Work order #2821886 supports the new steam generator installation.

11. Repair/Replacement Work Organization Arizona Public Service
12. Replacement Item Construction or reconciled Code/Edition ASME Section III, 1989 Edition, No Addenda
13. Repair/Replacement Activity Construction Code/Edition ASME Section III, 1989 Edition, No Addenda
14. ASME Section XI Code/Edition 1992 Edition and 1992 Addenda 74 N75 Doh 11-29-05

15. Preservice Inspection Required. ☒ YES ☐ NO
SE 10-6-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date

16. ASME Section XI Pressure Test Required ☒ YES ☒ NO Doh 11-29-05
SE 10-6-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date

- SE 10-6-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date
- SE 10-6-05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/POWO NO.
92671	45-3	N/A	70705	1012228
92670	45-4	N/A	9692	1012228

19. Planner Steven R Eich 10-6-05 Print Name Steven R. Eich
Signature Date

20. ISI Engineer D. B. H. 10-9-05 Print Name D. B. H.
Signature Date Loiseo Doh

21. ANII R. D. Klein 10-10-05 Print Name R. D. KLEIN
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 09/29/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2821886
Address Work Order Number

3. Work Performed by Arizona Public Service Company Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Expiration Date N/A
Address

4. Identification of System SG #2

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Pri Studs/Nuts	NA	NA	NA	Studs & Nuts	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Work included installation of the primary manway covers on 1MRCEE01B (RSG2) with
replacement studs and nuts
WO Number 2821886

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed DAN - Date 11-29-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Az 204 and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 10-10-05 to 11-29-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 Az 204
Inspector's Signature National Board, State, Province, and Endorsements
Date 11-29-05

Page 1 of 1Page 1 of 1

20. ANII William E Huber 11/21/05 Printed Name: WILLIAM E HUBER.
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12/19/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2822216

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: _____

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Summer 1976 Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Copes-Vulcan	7720-95384-2	1750	1JRCNHV0448	1978	Repaired	YES
Plug (trim set)	Copes-Vulcan	9021-96434-1-1	N/A	1JRCNHV0448	1990	Replacement	YES

7. Description of Work: Replace the plug (trim set) due to seating surface damage on the valve plug

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2822216 on valve 1JRCNHV0448 was reworked to correct seat leakage. A trim set with new plug was replaced.

Pre-Pressured Test WO Review - ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: RPindap, Consulting Metallurgical Engineer Date: 12-19-2005
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 11-21-05 to 12-19-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RPindap
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 12-19-05

Revision 01: Added Serial Numbers

FORM NPP-1 DATA REPORT FOR FABRICATED NUCLEAR PIPING SUBASSEMBLIES*
As Required by the Provisions of the ASME Code Rules, Section III, Div. 1.

Newington, NH

1. Fabricated by Combustion Engineering Inc., C-E Avery Div. Order No. 320
(Name and Address of NPT Certificate Holder)

2. Fabricated for CE-KSB Pump Company, Inc. Newington, NH Order No. N-78-0091
(Name and Address) Palo Verde NGS Unit 1

3. Owner Arizona Public Service Co. 4. Location of Plant Arlington, Arizona, Pump 1109-2A

5. Piping System Identification High Pressure Cooling Water Piping Assembly (RCP Motor Stand)
E-8000-101-9039 (Brief description of intended use, main coolant etc.)

(a) Drawing No. Rev 02 Prepared by CE-KSB Pump Company, Inc.

(b) National Board No. N/A

6. The material, design, construction, and workmanship complies with ASME Code Section III, Class 1
Edition 1974, Addenda Date None, Case No. None

Remarks: Certificate Holders' Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of this report See Supplemental Sheet No. 1
(Name of Part - Item number, Certificate Holder's name, and identifying stamp)

Note: Refer to Supplemental Sheets No. 1 and 2 and 3

7. Shop Hydrostatic Test 3750 psi.

8. Description of piping inspected See Supplemental Sheet No. 3 for Manufacturer's Serial No.
(include - mark no. - material spec. - nom. pipe size - schedule or thickness - length)

ITEM	DESCRIPTION	MATERIAL	SERIAL NO's
1	Flange, weld neck, 1" 1500 lb. SCH 80	SA182 F347	A-055, A-050, A-048 A-041, A-017, A-001
2	Stop Valve, 1" Socket Weld, Manual Actuator	SA182 F316 (body)	See Sheet #2
3	90° LR elbow butt weld, 1" SCH 80	SA403 WP 347	A-027, A-007
4	Pipe, 1" SCH80	SA312 Type 347	Z-0328, Z-0334
5	Stop valve, 1" Socket Weld, Motor Actuator	SA182 F316 (body)	See Sheet #2

(Continued on Supplemental Sheet #1)

We certify that the statements made in this report are correct and that the fabrication of the described piping conforms with the requirements of SECTION III of the ASME BOILER AND PRESSURE VESSEL CODE

Date 9/14/82 Signed Combustion Engineering Inc., C-E Avery Division
(NPT Certificate Holder)

Certificate of Authorization Expires February 20, 1984 Certificate of Authorization No. N-2041

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 Hampshire and employed by HSBI & I Co. of Hartford CN have inspected the piping described in this Data Report on 9-16-1982, and state that to the best of my knowledge and belief, the NPT certificate holder has constructed this piping in accordance with the applicable Subsections of ASME Code, Section III.

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

Date Sept 16, 1982
(Inspector) Al P. [Signature] Commission NH131
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 and 3 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 7. Remarks

Supplemental Sheet No. 1

1. Fabricated by: Combustion Engineering, Inc. Order No. 320
C-E Avery Division, Newington, N.H.
2. Fabricated for: CE-KSB Pump Company, Inc., Newington, N.H. Order No. H-78-0081
5. Piping System Identification: High Pressure Cooling Water Piping Assembly (RCP Motor Stand)
Dwg. No. E-8000-101-9039, Rev. 02 Prepared by CE-KSB Pump Company, Inc.

6. (Continued)

Certificate Holders' Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of this report:

<u>Item</u>	<u>Subassembly #1</u>	<u>S/N 1377-1</u>
2	Stop valve, Manual Actuator, Nat'l. Bd. No. 1644 S/N 7720-95383-2-2 Copes Vulcan, Inc. Section III Class 1 N Stamp	
2	Stop valve, Manual Actuator, Nat'l. Bd. No. 1643 S/N 7720-95383-2-1 Copes Vulcan, Inc. Section III Class 1 N Stamp	
5	Stop Valve, Motor Actuator, Nat'l. Bd. No. 1753 S/N 7720-95384-1-5 Copes Vulcan, Inc. Section III Class 1 N Stamp	

Subassembly #2 1377-2

5	Stop valve, Motor Actuator, Nat'l. Bd. No. 1750 S/N 7720-95384-1-2 Copes Vulcan, Inc. Section III Class 1 N Stamp
---	--

8. (Continued)

<u>Item</u>	<u>Description</u>	<u>Material</u>	<u>Serial Numbers</u>
6	Reducer, concentric, butt weld 1½" x 1" SCH 80	SA 403 WP347	A-010, A-009
7	Thermowell	SA 479 T347	A-008, A-016
8	Tee, reducing, butt weld 1½" x 1½" x 1" SCH 80	SA 403 WP347	A-004, A-001
9	Jet Pump Assembly	See Sheet #2	
10	Cyclone Filter Assembly	See Sheet #2	

REVISED

FORM NPV-1 MANUFACTURERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES
(As Required by the Provisions of the ASME Code, Section III, Div. 1)

1. Manufactured by Copes-Vulcan, Lake City, PA 16423
(Name and Address of Manufacturer)
2. Manufactured for CE-KSB Pump Company, Inc., Portsmouth, NH 03801
(Name and Address of Purchaser or Owner)
3. Location of Installation Buyers Stock
(Name and Address)
4. Pump or Valve Valve Nominal Inlet Size 1 (Inch) Outlet Size 1 (Inch)

(a) Model No. Series No. or Type	(b) Manufacturers' Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) MRL Ed. No.	(g) Year Built
(1) <u>Globe</u>	<u>7720-95384-1-2</u>		<u>E-179745 Rev. 3</u>	<u>1</u>	<u>1750</u>	<u>1978</u>
(2)						
(3)						
(4)						
(5)						
(6)						
(7)						
(8)						
(9)						
(10)						

5. 1" Class 1513# Motor Actuated Valve Valve No. 02
(Brief description of service for which equipment was designed)
Cust. P.O. #N-77-0007 Part No. 8000-919-005-A000

6. Design Conditions 2485 psi 650 °F or Valve Pressure Class 1513 (1)
(Pressure) (Temperature)

7. Cold Working Pressure psi at 100°F.

8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
(b) Forgings			
Body S/N 10598	ASME SA 182	McWILLIAMS	GR F316
Bonnet S/N 10459	ASME SA 182	McWILLIAMS	GR F316

(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.

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. _____ Date _____
(Date)

Signed Copes-Vulcan by [Signature]
(Manufacturer)

Our ASME Certificate of Authorization No. N-1842 to use the N symbol expires Aug. 19, 1980
(N) (NFV) (Date)

Design information on file at CE-KSB Pump Company, Portsmouth, NH 03801
Stress analysis report (Class I only) on file at Copes-Vulcan, Lake City, PA 16423
Design specifications certified by (1) Robert A. Boyd
PE State MASS Reg. No. PE20829
Stress analysis certified by (1) George Sevok
PE State PA Reg. No. 7458-E
(1) Signature not required. List name only.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Penna. and employed by Protection Mutual Ins. Co. of Park Ridge, IL have inspected the pump, or valve, described in this Data Report on 03/22 - 1950, 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 04/09, 1950
James B. Bell
Commission 007835

*FACTORY Mutual SYSTEM

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

As Required by the Provisions of the ASME Code, Section III, Division 1
Not To Exceed One Day's Production

Pg. of

1. Manufactured and certified by Copes-Vulcan, Lake City, PA 16423
(Name and address of certificate holder)

2. Manufactured for Combustion Engineering Inc., Portsmouth, NH
(Name and address of purchaser)

3. Location of installation Combustion Engineering, Newington, NH
(Name and address)

4. Type M-179705 Rev. 0 ASME SA564 Gr. 630 161,000 N/A 1990
(drawing no.) (mat'l. spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code, Section III: 1974 Summer 1976 1 --
(edition) (addenda) (class) (Code Case no.)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision -- Date --
(Ita.)

7. Remarks: Plug for 1" Class 1513# Valve Ass'y per Dwg. E-179745 Rev.4

Cust. P.O. 4507-0000-1 CV Job 9021-96434

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

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

Part or Appurtenance Serial Number	National Board No. In Numerical Order	Part or Appurtenance Serial Number	National Board Number In Numerical Order
(1) <u>9021-96434-1-1 (90-1)</u>	<u>N/A</u>	(26)	
(2)		(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 2485 psi Temp. 650 °F. Hydro. test pressure N/A at temp. °F.
(When applicable)

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

2

FORM N-2 (back)

Mfr. Serial No. 9071-96434

CERTIFICATE OF DESIGN

Design specifications certified by N/A P. E. state Reg. no.
(when applicable)

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

CERTIFICATE OF SHOP COMPLIANCE

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

NPT Certificate of Authorization no. N-1843 Expires 8/19/92

Date 7-12-96 Name Copes-Vulcan, Inc. Signed [Signature]
(NPT Certificate Holder) (Authorized Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or province of Penns and employed by Protection Mutual Insurance Company* of Park Ridge, IL have inspected these items described in this data report on 7/12/90 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

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

Date 7/12/90 Signed [Signature] Commissions 1B8563 P-2224
(Authorized Inspector) (Nat'l Bd. (incl. endorsements) state or prov. and no.)

Page 1 of 1

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/29/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2822223

3. Work Performed by: Arizona Public Service Company

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	BW / IP	97ZV1120	N/A	IPSIBVA06	1997	Replaced	Yes
Valve	Flowserve / Kerotest	41AZL	N/A	IPSIBVA06	2004	Replacement	Yes

7. Description of Work: Replaced the valve due to repair required on the seal area.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-2 ☐

Other ☐ Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: ^{DOI} Work Order 2822223 replaced the valve ^{RLB} to damage on the bonnet and body from removal of the seal weld. ₁₁₋₁₄₋₀₅

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 11/28/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 11-14-05 to 11-29-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RLB
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 11-29-05

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

Manufactured and certified by Flowserve Corporation, 1900 S. Saunders Street, Raleigh, NC 27603

(Name and Address of N Certificate Holder)

2. Manufactured for Pinnacle West Capital Corp., P.O. Box 3940, Phoenix, AZ 85072

(Name and Address of Purchaser)

3. Location of Installation Arizona Public Service, Palo Verde Nuclear Station, 5801 S. Wintersburg Rd., Tonopah, AZ 85354

(Name and Address)

4. Model No., Series No., or Type 1500# Y-Globe Drawing 72583222 Rev C CRN _

5. ASME Code, Section III, Division 1:	1974	Summer 1976	1	N/A
	(edition)	(addenda date)	(class)	(Code Case no.)

6. Pump or Valve Valve Nominal Inlet Size 1"
(inch) Outlet Size 1"
(inch)

7.	Material:	Body	SA182, F316	Bonnet	SA182, F316	Disk	SA479, T316	Bolting	N/A
----	-----------	------	-------------	--------	-------------	------	-------------	---------	-----

*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, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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

Certificate Holder's Serial No. 39AZL-44AZL

8. Design conditions 2775 psi 650 °F or valve pressure class 1690
(pressure) (temperature)
9. Cold working pressure 4056 psi at 100 °F
10. Hydrostatic test 6100 psi. Disk Differential test pressure 4465 psi.
11. Remarks: Nuclear Y-Globe valve.

S. O. 27382, It. 1

CERTIFICATION OF DESIGN

Design specification certified by	<u>Amitava Bhattacharya</u>	P.E. State	<u>AZ</u>	Reg. no.	<u>27603</u>
Design Report certified by	<u>Theron C. Bartlett II</u>	P.E. State	<u>PA</u>	Reg. no.	<u>039036-E</u>

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.,

N Certificate of Authorization No. N-1562 Expires Nov. 26, 2006

Date 7/31/04 Name Flowserve Corporation Signed [Signature]
(N Certificate Holder) (Authorized Representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford Connecticut have inspected the pump, or valve, described in this Data Report on 7/31/04, and state that, to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with ASME Code, Section III, Div. 1.

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

Date 7/31/04

Signed [Signature] Commissions NC 1421
(Inspector) (Nat'l Bd., State, Prov. and No.)

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PSIAVA07
- 2.. Item Description: SIC-UV-653 PRESSURE LOCK PREVENTION SYSTEM DRAIN VALVE
3. N-5 Data Package Number: DIWO 1008568 4. W.O. Number: 2822226
5. Original Construction Code Edition: 1974 Edition, Summer 1976 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace the stem and disc assembly (if required) to correct seat leakage and replace the body to bonnet seal weld
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Replacement to correct seat leakage. No failure in the ASME boundary.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1974 Edition 1976 Summer Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial N/A Date _____ If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☒ NO

Initial N/A Date _____ If required, include a step in the W.O. for ISI & ANII Inspection.

Initial J.O Date 9-25-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial J.O Date 9-23-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
<u>Body to Bonnet Seal weld</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

18. Planner J. I. Davis 9-23-05 Printed Name: James I. Davis
Signature Date

19. ISI Alan Morrow 9/28/05 Printed Name: Alan Morrow Log Entry am
Signature Date

20. ANII R.G. Hogstrom 9-28-05 Printed Name: R.G. Hogstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/04/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2822226

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection System

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Borg-Warner	96SN0404	N/A	1PSIAVA07	1996	Repaired	YES
Seal Weld	N/A	N/A	N/A	1PSIAVA07	2005	Replacement	NO

7. Description of Work: Rework the valve to correct seat leakage and replace the seal weld

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order 2822226 reworked the valve seat leakage and replaced the body to bonnet seal weld.

Pre-Pressured Test WO Review – ISI N/A

ANII _____

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: [Signature] SR. ISI ENGINEER Date: 11/4/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 9-28-05 to 11-4-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's report. Furthermore, neither the Inspector nor his employer shall be 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]
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 11-4-05

Page 1 of 1

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 08/15/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2822475

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SG - Main Steam System

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Summer 1976 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Flowserve Corp	AFE2-20	n/a	1PSGEV032	1984	Repaired	YES
Valve	Flowserve Corp	93AYK	n/a	apn 45000250	2004	Replacement	YES
disc	from above	56539 (Ht Code)	n/a	from apn above	2004	Replacement	NO
bonnet	from above	325078 (Ht Code)	n/a	from apn above	2004	Replacement	NO

7. Description of Work: Overhaul 2" Kerotest valve to correct seat leakage, replaced parts from spare valve.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

Remarks: Per wo# 2822475, valve 1PSGEV032 will have the bonnet and stem/disc assembly replaced to expedite the time the valve is out of service. The parts were obtained from a spare valve, apn# 45000250 Flowserve s/n 93AYK (code paper attached). The existing 2" Flowserve valve s/n AFE2-20 was installed in October 2002 under wo# 2387151 (code paper attached).

Pre-Pressured Test WO Review – ISI

ANII

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A _____

Certificate of Authorization No. _____ N/A _____ Expiration Date: _____ N/A _____

Signed: _____ ISI ENGINEER Date: 8-25-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 8-15-05 to 8-25-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Inspectors Signature

Commissions: NB 9685 'N' 'T' AZ264
National Board, State, Province, and Endorsements

Date: 8-25-05

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

Pg. 1 of 2

Manufactured by FLOWSERVE CORPORATION, 1900 S. Saunders St., Raleigh, NC 27603

(Name and Address of N Certificate Holder)

2. Manufactured for APS PUBLIC SERVICE COMPANY PHOENIX AZ 85072-2034

(Name and Address of Purchaser or Owner)

3. Location of Installation APS-PALO VERDE TONOPAH AZ 85354

(Name and Address)

4. Pump or Valve Valve Nominal Inlet Size 2" Outlet Size 2"
(inch) (inch)(a) Model No.
Series No.
or Type(b) N Certificate
Holder's
Serial No.(c) Canadian
Registration
No.(d) Drawing
No.

(e) Class

(f) Nat'l.
Bd. No.(g) Year
Built

(1) 1500-YGB F316 93AYK N/A 72599962 / C 2 N/A 2004

(2) 1500-YGB F316 94AYK N/A ARZ-D-21516G -(2) / C 2 N/A 2004

(3)

(4)

(5)

(6)

(7)

(8)

(9)

(10)

5. 2" GLOBE VALVE

(Brief description of service for which equipment was designed)

23451

6. Design Conditions 2580 psi 650 °F or Valve Pressure Class 1500 (1)
(Pressure) (Temperature)7. Cold Working Pressure 3600 psi at 100 °F.

8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
(a) Castings			
(b) Forgings			
CKN	SA182 F316	FLOWSERVE	BODY
A16762	SA182 F316	FLOWSERVE	BONNET
325078	SA182 F316	FLOWSERVE	BONNET ✓
56539	SA479 T316	DUBOSE	DISC ✓

(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.

4

Valve S/N _93AYK_ through _94AYK_

[illegible]

9. Hydrostatic test	5400	psi.	Disk Differential test pressure	3960	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'76** . Code Case No.

N/A

Date _____

Signed _____
Flowserve Corporation.

by

(N Certificate Holder)

Our ASME Certificate of Authorization No.

N-1562

to use the

N

symbol expires

11-26-06

(N

(Date)

CERTIFICATION OF DESIGN

Design information on file at

FLOWSERVE CORPORATION

Stress analysis report (Class 1 only) on file at _____

Design specifications certified by (1)

AMITAVA BHATTACHARYA

PE State

AZ

Reg. No.

27603

Stress analysis certified by (1)

PE State

Reg. No.

(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB CT of Hartford Connecticut

have inspected the pump, or valve, described in this Data Report on 3 116 104, and state that, to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with 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 s 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 1/6 1964

Signed

(Inspector)

Commissions NC 1421

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

5

Page 1 of 1

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 09/16/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2824402

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SP

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Summer 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
S.P. flow meter fasteners	Pullman-power products <i>11-15-05</i> <i>010387</i>		N/A	1PSPBL030	2005	Replacement	NO

7. Description of Work: To remove for engineering inspection, and to replace flange fasteners.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐

Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

Remarks: To remove for engineering inspection, and to replace flange fasteners. w.o. 2824402.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 11/15/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 4-16-05 to 11-16-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL Lipton

Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 11-16-05

Page 1 of 1

Printed Name: William E Huber

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 09/21/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2829134
Address Work Order Number

3. Work Performed by Arizona Public Service Company Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Expiration Date N/A
Address

4. Identification of System SG

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, no Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	225	174	1MRCEE01B	05	Repaired	Yes

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Rework the undercut area on main steam pressure tap weld (NZ323/2) to main steam nozzle on replacement steam generator 2 (1MRCEE01B) per DIWO 2829130.

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] Date 9-21-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VERGINIA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-21-2005 to 9-21-2005, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Date 9-21-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JSIAUV0674
- 2.. Item Description: A TRAIN CONTAINMENT RECIRC SUMP TO SI TRAIN 'A' CONTAINMENT ISOLATION VALVE
3. N-5 Data Package Number: 1SI01-1B 4. W.O. Number: 2830284
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace the gasket retainer bolts per EDC 2005-00663
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
- _____

10. Repair/Replacement Work Organization: Arizona Public Service **5 RPE 11/2/05**
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1974 Edition 1974 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial N/A Date _____ If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial N/A Date _____ If required, include a step in the W.O. for ISI & ANII Inspection.

Initial J.O. Date 10-25-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial J.O. Date 10-25-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Gasket retainer bolts	APN 00090043	N/A	0105 (LOT)	MR 1031226

18. Planner J. K. Davis 10-25-05 Printed Name: James I. Davis
Signature Date

19. ISI Fred Poteet 10/26/05 Printed Name: FRED POTEET Log Entry 78
Signature Date

20. ANII R.G. Hogstrom 10-26-05 Printed Name: R.G. HOGSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: _____

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2830284

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Posi -Seal	14336-4-A	N/A	1JSIAUV0674	1978	Repaired	YES
Gasket retainer bolts	N/A	010J(20)	N/A	1JSIAUV0674	2005	Replacement	NO

7. Description of Work: Replace the gasket retainer bolting as required per EDC 2005-00663

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

Remarks: Work Order 2830284 replaced the original 410 Stainless steel gasket retainer bolts with more corrosion resistant SA564, Gr 630 bolts per EDC 2005-00663 and DMWO 2760330.

Pre-Pressured Test WO Review – ISI N/A
ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: R. J. Indap, Consulting Metallurgical Engineer Date: 11-2-2005
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-26-05 to 11-3-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

R. J. Indap

Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 11-3-05

Page 1 of 1

— BOLTS REPLACED WITH NEW MATERIAL. RLD
11-8-05

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11-7-05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2830285

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Posi -Seal	14336-4-B	N/A	1JSIBUV0676	1978	Repaired	YES
Gasket retainer bolts	N/A	Lot # 2105	N/A	1JSIBUV0676	2005	Replacement	NO

7. Description of Work: Replace the gasket retainer bolting as required per EDC 2005-00664

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order 2830285 replaced the original 410 Stainless steel gasket retainer bolts with more corrosion resistant SA564, Gr 630 bolts per EDC 2005-00664 and DMWO 2760330.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 11/7/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-26-05 to 11-8-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RB Lipton

Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 11-8-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PSPAL068
- 2.. Item Description: DISCHARGE FLOW INDICATOR S.P.
3. N-5 Data Package Number: ISP01-2
4. W.O. Number: 2830370
5. Original Construction Code Edition: 1974 Edition, Summer 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: To remove the annubar for engineering inspection, during this evolution the flange fasteners will be removed and replaced due to corrosion of the fasteners for ease of re-installation.
8. ☐ ISI Flaw
NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
This annubar is being removed for an engineering inspection.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Summer Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☐ YES ☒ NO

Initial MJS Date 10-4-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial MJS Date 10-4-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial MJS Date 10-4-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial MJS Date 10-4-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
STUDS	APN 43110014	N/A		
NUTS	APN 43122013	N/A		

18. Planner Martin J Sullivan 10-4-05 Printed Name: Martin J Sullivan
Signature Date

19. ISI R. P. INZAP 10-04-05 Printed Name: R. P. INZAP Log Entry RPI
Signature Date

20. ANII R. G. Hockstrom 10-4-05 Printed Name: R. G. Hockstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 10/04/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2830370

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SP

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Summer 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
S.P. flow meter fasteners	Pullman power products	N/A	N/A	1PSPAL068	2005	Replacement	NO

7. Description of Work: To remove for engineering inspection, and to replace flange fasteners.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: To remove for engineering inspection, and to replace flange fasteners. w.o. 2830370.

Pre-Pressured Test WO Review – ISI N/A
ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 11/3/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-1-05 to 11-3-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

R. B. Johnson
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 11-3-05

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEE01A 2. Code Class ASME Section III, Class 1
3. Item Description Replacement Steam Generator #1 / SN# 224
4. N-5 Package Number 1RC01-4 5. W.O. Number 2834917
6. Original Construction Code Edition 1971 Edition, Winter 1973 Addenda
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Rework primary manway(s) drain tube weld area(s) per DFWO# 2834914 evaluation/disposition
9. ☒ W/A ISI Flaw 0AH NDE Method of Flaw Detection PT
Report Number #183, #184
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
Evaluation Per Engineering DFWO# 2834914

11. Repair/Replacement Work Organization Arizona Public Service
12. Replacement Item Construction or reconciled Code/Edition ASME Section III, 1989 Edition, No Addenda
13. Repair/Replacement Activity Construction Code/Edition ASME Section III, 1989 Edition, No Addenda
14. ASME Section XI Code/Edition 1992 Edition and 1992 Addenda

15. Preservice Inspection Required. ☐ YES ☒ NO
SE 10-10-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date
16. ASME Section XI Pressure Test Required ☐ YES ☒ NO
SE 10-10-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date
- SE 10-10-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date
- SE 10-10-05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.
<u>1MRCEE01A</u>	<u>NA</u>	<u>224</u>	<u>NA</u>	<u>NA</u>

19. Planner Steven R. Eich 10-10-05 Print Name Steven R. Eich
Signature Date
20. ISI Engineer DBH- 10-11-05 Print Name D. D. Hansen
Signature Date H&SCP
21. ANII Randy Klein 10-11-05 Print Name R. D. KLEIN
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 10/10/05
Name
P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address
2. Plant Palo Verde Nuclear Generating Station Unit 1
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2834917
Address Work Order Number
3. Work Performed by Arizona Public Service/Westinghouse Type Code Symbol Stamp None
Name
5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Authorization No. N/A
Address Expiration Date N/A
4. Identification of System Reactor Coolant (RC)
5. (a) Applicable Construction Code ASME Sect III CL 1 19 89 Edition, NO Addenda, N/A Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 1992 Addenda
6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Ansaldo	224	NA	1MRCEE01A	2005	Repaired	Yes

7. Description of Work Rework primary manway drain tube weld area(s) per Eng. DFWO# 2834914
8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐
 Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Rework primary manway drain tube weld area(s)/indications per Eng. DFWO# 2834914 / DIWO# 2834917

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed *DAI* Date 10-17-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA. 558 R and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-30-05 to 11-08-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

William E. Allen Commissions VA 558 R
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-08-05

ASME SECTION XI - REPAIR/REPLACEMENT

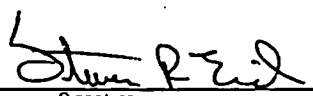


Page 1 of 1

1. Component ID 1MRCEE01B
2. Code Class ASME Section III, Class 1
3. Item Description Replacement Steam Generator #2 / SN# 225
4. N-5 Package Number 1RC01-4
5. W.O. Number 2834920
6. Original Construction Code Edition 1971 Edition, Winter 1973 Addenda
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Rework primary manway drain tube weld area(s) per DFWO# 2834918 evaluation/disposition
9. ☒ ISI Flaw NDE Method of Flaw Detection PT
DBH Report Number #182
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
Evaluation Per Engineering DFWO# 2834918

11. Repair/Replacement Work Organization Arizona Public Service
12. Replacement Item Construction or reconciled Code/Edition ASME Section III, 1989 Edition, No Addenda
13. Repair/Replacement Activity Construction Code/Edition ASME Section III, 1989 Edition, No Addenda
14. ASME Section XI Code/Edition 1992 Edition and 1992 Addenda

15. Preservice Inspection Required. ☐ YES ☒ NO
SE 10-10-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date
16. ASME Section XI Pressure Test Required ☐ YES ☒ NO
SE 10-10-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date
- SE 10-10-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date
- SE 10-10-05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.
<u>1MRCEE01B</u>	<u>NA</u>	<u>225</u>	<u>NA</u>	<u>NA</u>

19. Planner  10-10-05 Print Name Steven R. Eich
Signature Date
20. ISI Engineer  10-11-05 Print Name D.B. Hansen
Signature Date LOGGED
21. ANII  10-11-05 Print Name R.D. Klein
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 10/10/05
Name

P.O. Box 53999, Phoenix, Arizona 85072-2034 Sheet 1 of 2
Address

2. Plant Palo Verde Nuclear Generating Station Unit 1
Name

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529 2834920
Address Work Order Number

3. Work Performed by Arizona Public Service/Westinghouse Type Code Symbol Stamp None
Name

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, Arizona 85354 Expiration Date N/A
Address

4. Identification of System Reactor Coolant (RC)

5. (a) Applicable Construction Code ASME Sect III CL 1 19 89 Edition, NO Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Steam Generator	Anasaldo	225	NA	1MRCEE01B	2005	Repaired	Yes

7. Description of Work Rework primary manway drain tube weld area per Eng. DFWO# 2834918

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Rework primary manway drain tube weld area/indication per Eng. DFWO# 2834918 / DIWO# 2834920

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed *DAH* Date 10-17-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA WEH 11-08-05 and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 9-20-05 to 11-08-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Walker E. H. H. Commissions VA 558 R
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-08-05

ASME SECTION XI – REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JSIAUV0678
- 2.. Item Description: "A" Train Containment Spray to "A" Shutdown Heat Exchanger Valve
3. N-5 Data Package Number: ISI06-1 4. W.O. Number: 2835130
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace the gasket retainer bolts per the requirements of N001-1104-00044
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
No failure of the ASME code boundary

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 2, 1974 Edition 1974 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 2, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial N/A Date _____ If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial N/A Date _____ If required, include a step in the W.O. for ISI & ANII Inspection.

Initial J.I.D Date 10-24-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial J.I.D Date 10-24-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Gasket retainer bolts	APN 43141195	N/A		MR 1031219

18. Planner [Signature] 10-24-05 Printed Name: James I. Davis
Signature Date

19. ISI [Signature] 10/25/05 Printed Name: FRED POTEET Log Entry 78
Signature Date

20. ANII [Signature] 10-25-05 Printed Name: R.G. HOLSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11-2-05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2835130

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Posi-Seal	14336-1A	N/A	1JSIAUV0678	1978	Repaired	YES
Gasket retainer bolts	N/A	N/A	N/A	1JSIAUV0678	2005	Replacement	NO

7. Description of Work: Replace the gasket retainer bolting as required per N001-1104-00044

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

Remarks: Work Order 2835130 replaced the original gasket retainer bolts with identifiable 410 Stainless steel bolts per N001-1104-00044.

Pre-Pressured Test WO Review – ISI N/A
ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Morrow ISI Engineer Date: 11/02/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-25-05 to 11-2-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 11-2-05

Page 1 of 1

73DP-92212 Rev 9

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/12/05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2835133

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NC, Class 2 1974 Edition, Winter 1975 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Valve	Posi -Seal	14336-1B	N/A	1JSIBUV0679	1978	Repaired	YES
Gasket retainer bolts	N/A	N/A	N/A	1JSIBUV0679	2005	Replacement	NO

7. Description of Work: Replace the gasket retainer bolting as required per N001-1104-00044

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order 2835133 replaced the original gasket retainer bolts with identifiable 410 Stainless steel bolts per N001-1104-00044.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 11/12/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-25-05 to 11-13-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL Lytton
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 11-13-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PSIAV523
- 2.. Item Description: "A" HPSI Containment Isolation Check Valve
3. N-5 Data Package Number: 1RC01-1C
4. W.O. Number: 2837012
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace valve internals (Bonnet, Arm and Disc assembly, disc and stud assembly) as required to correct seat leakage
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Replacement to correct seat leakage. No failure in the ASME boundary.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial N/A Date _____ If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial N/A Date _____ If required, include a step in the W.O. for ISI & ANII Inspection.

Initial J.O Date 10-14-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial J.O Date 10-14-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR(PO)WO No.
<u>BONNET</u>	<u>76356</u>	<u>S/N 1</u>	<u>N/A</u>	<u>60203780</u>
<u>DISC, ASSEMBLY</u>	<u>45004053</u>	<u>S/N 1</u>	<u>N/A</u>	<u>60203780</u>

18. Planner J. L. Davis 10-14-05
Signature Date

Printed Name: James I. Davis

19. ISI Fred Poteet 10/15/05
Signature Date

Printed Name: FRED POTEET Log Entry 78

20. ANII R.G. Hogstrom 10-15-05
Signature Date

Printed Name: R.G. HOGSTROM

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12-20-05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2837012

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Borg-Warner	27603	N/A	1PSIAV523	1978	Repaired	YES
Disc	Borg-Warner	SN 2	N/A	1Q90	1977	Replaced	YES
Bonnet	Borg-Warner	SN 1W	N/A	1Q89	1977	Replaced	YES
Disc	Borg-Warner	SN 1	N/A	226418	1993	Replacement	YES
Bonnet	Borg-Warner	SN 1	N/A	216613	1993	Replacement	YES

7. Description of Work: Replace the bonnet and disc assembly to correct seat leakage.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work order 2837012 replaced the bonnet and disc assembly to correct leakage past the seat. The bonnet/ arm and disc assembly was removed from a complete spare valve APN 45004053. serial number 901L0038, procured by APS purchase order 60203780

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-15-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RB Lygton
Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1JSIAUV0634
2. Item Description: SIT "1A" OUTLET VALVE TO RC LOOP "1A"
3. N-5 Data Package Number: 1RC01-1C
4. W.O. Number: 2836099
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Rework or replace the disc to correct seat leakage, replace the packing leakoff line
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Seat leakage only, no failure of the ASME boundary

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial N/A Date _____ If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial N/A Date _____ If required, include a step in the W.O. for ISI & ANII Inspection.

16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Cap. Pipe	43550612	N/A	Code "CDLM"	1037174

18. Planner [Signature] Date _____ Printed Name: James I. Davis

19. ISI [Signature] 10/13/05 Date _____ Printed Name: RL Browning Log Entry [Signature]

20. ANII [Signature] 10-12-05 Date _____ Printed Name: R.G. HOGSTROM

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/28/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2836099

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SI: Safety Injection

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Borg Warner	26197	716	1JSIAUV0634	1978	Repaired	YES
Pipe cap	n/a	n/a	n/a	1JSIAUV0634	2005	Replaced	NO

7. Description of Work: Reworked valve to correct seat leakage. Welded packing leak-off port closed with pipe cap.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: WO# 2836099 on valve 1JSIAUV0634 was reworked to correct seat leakage. A pipe cap was welded into packing leak-off port IAW the site packing program, 13-PN-220

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Morrow ISI Engineer Date: 11/28/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 10-12-05 to 11-29-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RL Hyatt

Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264

National Board, State, Province, and Endorsements

Date: 11-29-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PSGEV888
- 2.. Item Description: 2" Kerotest Check Valve
3. N-5 Data Package Number: n/a
4. W.O. Number: 2835867
5. Original Construction Code Edition: 1974 Edition, Summer 1976 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Replace valve due to worn seat condition.
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
No failure of the ASME Section III boundary.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 3, 1974 Edition 1976 Summer Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 3, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda

14. Preservice Inspection Required: ☐ YES ☒ NO

Initial DMG Date 11-16-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☐ NO

Initial DMG Date 11-16-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial DMG Date 11-16-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial DMG Date 11-16-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Valve	APN 45001929	APX1-1	N/A	MR 1039136

18. Planner David Goodlet 11-16-05 Printed Name: David Goodlet
Signature Date

19. ISI Alan Morrow 11/16/05 Printed Name: Alan Morrow Log Entry am
Signature Date

20. ANII Robert Hockstrom 11-16-05 Printed Name: Robert Hockstrom
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 1/16/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2835867

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: SG: Main Steam

5. (a) Applicable Construction Code ASME Section III ND, Class 3 1974 Edition, Summer 1976 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Kerotest	JAW21-22	N/A	1PSGEV888	1984	Replaced	YES
Valve	Kerotest	APX1-1	N/A	1PSGEV888	1988	Replacement	YES

7. Description of Work: Replace valve due to worn seat condition.

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐

N-416-2 ☒ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order# 2835867 for check valve 1PSGEV888. Valve was disassembled and inspected. Seats are worn so the valve is being weld replaced.. Valve is a Kerotest 2" check valve.

Pre-Pressured Test WO Review – ISI Alan Monow 12/9/05

ANII RB Lipton 12-9-05

Certificate of Compliance

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

Type Code Symbol Stamp _____ N/A _____

Certificate of Authorization No. _____ N/A _____ Expiration Date: _____ N/A _____

Signed: Alan Monow ISI Engineer Date: 12/20/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 11-16-05 to 12-20-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RB Lipton

Inspectors Signature

Commissions: NB 9685 "N" "T" AZ264
National Board, State, Province, and Endorsements

Date: 12-20-05

As required by the provisions of the ASME Code, Section III, Div. 1

Sheet of 1

one of those values
is in \mathbb{Z}^n !

3000

JAN 21-4

Body - JAW	SA105	Steel Improvement
Cover - AJX	SA105	McWalter

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 reported at top of this form.

[illegible]

ASME 1976

FORM NO. 1 (Rev. 1-78)

NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS		CERTIFICATE OF DESIGN	
Name and Address of Manufacturer		Name and Address of User	
Kerotest Manufacturing Corp. 1000 N. 10th St. Phoenix, Arizona 85001		Lalo Verduzco 1000 N. 10th St. Phoenix, Arizona 85001	
Name and Address of Inspector		Name and Address of User	
D. Kinnsch 1000 N. 10th St. Phoenix, Arizona 85001		Lalo Verduzco 1000 N. 10th St. Phoenix, Arizona 85001	
Design Information on file at		Sketch analysis report (Class 1 only) on file at	
Kerotest Manufacturing Corp.		N/A	
Design specifications certified by (1)		D. Kinnsch	
PE State AZ		Reg. No. 9709	
Sketch analysis certified by (1)		N/A	
PE State N/A		Reg. No. N/A	
(1) Signature not required. List name only.			

CERTIFICATE OF CONFORMANCE

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. 5, Edition 1976, Addenda Summary 1976, Code Case No. N/A, Date September 19, 1984.

Signed Kerotest Manufacturing Corp. by [Signature]

Our ASME Certificate of Authorization No. 1902 to use the N symbol expires 4/25/86.

CERTIFICATION OF DESIGN

Design information on file at Kerotest Manufacturing Corp.

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

Design specifications certified by (1) D. Kinnsch

PE State AZ Reg. No. 9709

Sketch analysis certified by (1) N/A

PE State N/A Reg. No. N/A

(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 Pennsylvania and employed by The Hartford Steam Boiler I&I Co. of Hartford, Connecticut have inspected the pump, or valve, described in this Data Report on 9-19-84, 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 9-19-84 [Signature] Commissioner

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PSIEV542
- 2.. Item Description: HPSI/LPSI Header Loop Injection Check Valve
3. N-5 Data Package Number: 1RC01-1C
4. W.O. Number: 2846426
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Remove and reinstall the bonnet clevis and replace the seal weld per ENG DF 2846461
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:
9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:
Repair to adjust the assembly length only. No failure of ASME Pressure retaining boundary.

10. Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial J.D. Date 11-28-05 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☒ YES ☒ NO RLB 11/29/05

Initial J.D. Date 11-28-05 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial J.D. Date 11-28-05 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial J.D. Date 11-28-05 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Clevis Seal Weld	N/A	N/A	N/A	N/A

18. Planner J. H. Davis 11-28-05 Printed Name: James I. Davis

19. ISI RLB 11/29/05 Printed Name: R.L. Browning Log Entry RLB

20. ANII RLB 11-29-05 Printed Name: RLC Hogstrom

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 12-8-05

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 2

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2846426

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: Safety Injection

5. (a) Applicable Construction Code ASME Section III NB, Class 1 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Valve	Borg Warner	31969	1000	1PSIEV542	1978	Repaired	YES
Clevis Seal Weld	N/A	N/A	N/A	N/A	2005	Replaced	NO

7. Description of Work: Remove and reinstall the clevis per ENG DF 2846421

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: DIDF 2846426 removed the clevis from the bonnet, machined and reinstalled the clevis and seal weld as directed by ENG DF 2846421.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/8/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 11-29-05 to 12-8-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RD [Signature]
Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 12-8-05

ASME SECTION XI - REPAIR / REPLACEMENT

Page 1 of 1

1. Component ID 1PRCEL146
- 2.. Item Description: Reactor Head Vent Piping Support Bracket
3. N-5 Data Package Number: 1RC01-4
4. W.O. Number: 2846557
5. Original Construction Code Edition: 1974 Edition, Winter 1975 Addenda
6. Original Installation Code Edition: 1974 Edition, Winter 1975 Addenda
7. Work Description: Fabricate and Install Upgraded Design Reactor Head Vent Line Support Bracket
8. ☐ ISI Flaw NDE Method of Flaw Detection:
Report Number:

9. Evaluation of the suitability of this work as per the requirements of IWA - 4150:

The Reactor head vent line is being upgraded from ASME Class 2 to Class 1, examination of the vent piping support bracket at the beginning of UIR12 Identified that a Seismic upgrade of the bracket had not been installed, this installation will install the correct configuration support bracket as installed in Units 2 & 3.

- 10: Repair/Replacement Work Organization: Arizona Public Service
11. Replacement Items Construction or reconciled Code/Edition: Sec. III NF Cl 1, 1974 Edition Winter 1975 Addenda
12. Repair/Replacement Activity Construction Code/Edition: Sec. III Cl 1, 1974 Edition 1975 Winter Addenda
13. ASME Section XI Code/Edition: 1992 Edition and 1992 Addenda
14. Preservice Inspection Required: ☐ YES ☒ NO

Initial KOS Date 4/17/2005 If required, include a step in the W.O. to perform Preservice Inspection

15. ASME Section XI Pressure Test Required: ☐ YES ☒ NO

Initial KOS Date 4/17/2005 If required, include a step in the W.O. for ISI & ANII Inspection.

Initial KOS Date 4/17/2005 16. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.

Initial KOS Date 4/17/2005 17. Include a step in the W.O. to record below all applicable numbers for repaired or replacement items.

Item ID	Part No.	Serial No.	Heat No.	MR/PO/WO No.
Channel, Structural SA36	APN 00094304		K87124	MR 1039422
Tubing, Structural SA36	APN 00094303		A33236	MR 1039422
Plate, 1/2" SA36	APN 43643245		1480296	MR 1039422
Bolt, 1/2" SA 193 Gr.B7	APN 43103081		83774	MR 1039422
Nut, 1/2" SA 194 Gr.B7	APN 00094302		N1	MR 1039422

18. Planner Karl V. Savage 4/17/2005 Printed Name: Karl V. Savage
Signature Date

19. ISI R.P. Indap 11/17/05 Printed Name: R.P. INDAP Log Entry RP2
Signature Date

20. ANII R.G. Hogstrom 11-17-05 Printed Name: R.G. HOGSTROM
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner: Arizona Public Service Company, et. al.

Date: 11/17/2005

P. O. Box 53999, Phoenix Arizona 85072-2034

Sheet: 1 of 1

2. Plant: Palo Verde Nuclear Generating Station

Unit: 1

5801 South Wintersburg Road., Tonopah, Arizona 85354-7529

Work Order Number 2846557

3. Work Performed by: Arizona Public Service

Type of Code Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System: RC - Reactor Coolant

5. (a) Applicable Construction Code ASME Section III NF, Class 1 1974 Edition, Winter 1975 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1992 Edition, 1992 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacture	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or NO)
Channel, Structural SA36	N/A	N/A	N/A	N001-0301-168 Item 656-03	N/A	Replacement	NO
Tubing, Structural SA36	N/A	N/A	N/A	N001-0301-168 Item 656-04	N/A	Replacement	NO
Plate SA36	N/A	N/A	N/A	N001-0301-168 Item 656-05	N/A	Replacement	NO
Bolts SA193GrB7	N/A	N/A	N/A	N001-0301-168 Item 656-12	N/A	Replacement	NO
Nuts SA194GrB7	N/A	N/A	N/A	N001-0301-168 Item 656-13	N/A	Replacement	NO

7. Description of Work: Replace the head vent piping support bracket to updated design shown on N001-0301-00168

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒

N-416-2 ☐ Other Pressure _____ psi

Test Temperature _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ X 11 inches, (2) information in items 1 thru 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the to of this form.

FORM NIS-2 (Back)

9. Remarks: Work Order 2846557. Fabricated and installed updated design of head vent piping support bracket as shown on drawing N001-0301-00168.

Pre-Pressured Test WO Review – ISI N/A

ANII N/A

Certificate of Compliance

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

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date: N/A

Signed: Alan Monow ISI Engineer Date: 12/5/05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 Arizona and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's report during the period of 11-17-05 to 12-5-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

RJ [Signature]

Inspectors Signature

Commissions: NB 9685 "N" "I" AZ264
National Board, State, Province, and Endorsements

Date: 12-5-05

ASME SECTION XI - REPAIR/REPLACEMENT

Page 1 of 1

1. Component ID 1MRCEM01 2. Code Class Section III Cl 1
3. Item Description Vortex Plate
4. N-5 Package Number 1RC01-1A 5. W.O. Number 2851423
6. Original Construction Code Edition 1974 Edition, Summer 1974 Addenda
7. Original Installation Code Edition 1974 Edition, Winter 1975 Addenda
8. Work Description Machine/Grind/Removal of the Vortex Plate Per Bechtel WP&IR #P-VPR-461
9. ☐ ISI Flaw NDE Method of Flaw Detection N/A
Report Number _____
10. Evaluation of the suitability of this work as per the requirements of IWA-4150.
Per ENG. DF01 #2851421

11. Repair/Replacement Work Organization Bechtel Construction Co
12. Replacement Item Construction or reconciled Code/Edition Section III Cl 1, 1974 Edition "75 Winter Addenda
13. Repair/Replacement Activity Construction Code/Edition Section III Cl 1, 1974 Edition "75 Winter Addenda
14. ASME Section XI Code/Edition 1992 Edition and 1992 Addenda

15. Preservice Inspection Required. ☐ YES ☒ NO
SE 12-7-05 If required, include a step in the W.O. to perform Preservice Inspection.
Initial Date

16. ASME Section XI Pressure Test Required ☐ YES ☒ NO
SE 12-7-05 If required, include a step in the W.O. for ISI & ANII Inspection.
Initial Date

- SE 12-7-05 17. Include a step in the W.O. to complete NIS-2 Form prior to releasing the component.
Initial Date

- SE 12-7-05 18. Include a step in the W.O. to record below all applicable numbers for replacement items.
Initial Date

ITEM I.D.	PART NO.	SERIAL NO.	HEAT NO.	MR/PO/WO NO.
<u>None</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>

19. Planner Steven Eich 12-7-05 Print Name Steven Eich
Signature Date

20. ISI Engineer [Signature] 12-7-05 Print Name HANSEN
Signature Date LOGGED HANSEN

21. ANII William E Huber 12-7-05 Print Name William E Huber
Signature Date

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

As Required by the Provisions of the ASME Code Section XI

1. Owner Arizona Public Service Company, et. al. Date 12/07/05

P.O. Box 53999, Phoenix, Arizona 85072-2034

Sheet 1 of 2

2. Plant Palo Verde Nuclear Generating Station

Unit 1

5801 S. Wintersburg Rd., Tonopah, Arizona 85354-7529

2851423

Work Order Number

3. Work Performed by Bechtel

Type Code Symbol Stamp None

Authorization No. N/A

5801 S. Wintersburg Rd., Tonopah, Arizona 85354

Expiration Date N/A

4. Identification of System RC

5. (a) Applicable Construction Code ASME Section III 19 74 Edition, W75 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 92 Edition, 92 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Item	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired or Replacement	ASME Code Stamped (Yes or No)
Vortex Plate	NA	NA	NA	1PRCEL032	NA	Replacement	No

7. Description of Work See remarks on sheet 2

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ N-416-1 ☐

Other ☐

Pressure _____ psi

Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Remove the vortex plate in the RCS Hot Leg Line 1PRCEL032 per DMW2851421 / DIWO
2851423 and WPIR P-VPR-461.
- _____
- _____
- _____
- _____

Pre-Pressure Test Review: NA

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed TGH- ENGR Date 12-7-05
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE 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 VA and employed by HSB CT of Hartford, Connecticut, have inspected the components described in this Owner's Report during the period 12-7-05 to 12-7-05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be 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 VA 558 'R'
National Board, State, Province, and Endorsements

Date 12-7-05