

9901210345

INSERVICE INSPECTION  
PROGRAM SUMMARY MANUAL

PALO VERDE  
NUCLEAR GENERATING STATION  
UNIT 3

ARIZONA PUBLIC SERVICE COMPANY  
P.O. Box 52034  
Phoenix, AZ 85072-2034

PVNGS  
5801 S. Wintersburg Road  
Wintersburg, Az 85354-7529

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APPROVAL BY  
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DEPARTMENT LEADER: Gary T. Shumlin DATE: 12/16/98

COMMERCIAL  
SERVICE DATE: 01/08/88

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Zone Drawings	(see Dwg)



### 3.10 EXEMPTIONS

The exemption criteria identified in the 1980 Edition through and including the Winter 1981 Addenda of ASME Section XI was utilized for all ASME Class 1, 2, and 3 components and systems. This includes the PVNGS Safety Injection System (RHR, ECCS, and CHR systems) piping and components, even though 10 CFR 50.55a requires the 1974 Edition through and including the 1975 Summer Addenda be utilized. It was concluded after a detailed review that the exemption criteria identified in the Winter 1981 Addenda was more conservative in every case than those identified in the Summer 1975 Addenda, and more examinations would therefore be performed on safety injection systems piping and components.

A thorough review of all the systems and components was performed in accordance with the above exemptions and a complete set of color coded Inservice Inspection Boundary drawings was prepared. These drawings are maintained at the PVNGS site for review.

### 3.11 CODE CASES

ASME Section XI Code Case acceptability will be based on Regulatory Guide 1.147. In addition, Code Case N-416-1 was approved for use in an SER attached to NRC letter addressed to MR. W. L. Stewart, dated March 16, 1995.



# APS

## PALO VERDE NUCLEAR GENERATING STATION 10 YEAR INTERVAL - EXAMINATION SUMMARY

### ASME CLASS 1

TABLE 1-1  
PAGE 1 OF 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 100	<u>EXAM CATEGORY B-A:</u> <u>PRESSURE RETAINING</u> <u>WELDS IN REACTOR</u> <u>VESSEL</u>								
110 111	<u>SHELL WELDS</u> <u>CIRCUMFERENTIAL</u> 1- Reactor Vessel	Butt Welds	SN 65173	Vol	3 **	0 0 3	One Two Three	0 0 100	
112	<u>LONGITUDINAL</u> 1- Reactor Vessel	Butt Welds	SN 65173	Vol	9 **	0 0 9	One Two Three	0 0 100	
120 121	<u>HEAD WELDS</u> <u>CIRCUMFERENTIAL</u>	None							
122	<u>MERIDIONAL</u> 1- Reactor Vessel Bottom Head	Butt Weld	SN 65173	Vol	1	0 0 1	One Two Three	0 0 100	Note Request for Relief # 13 <u>AUTOMATED</u> <u>EXAM CORE</u> <u>BARREL</u> <u>REMOVED.</u> EXAMINE ENTIRE ACCESSIBLE LENGTH
	2- Closure Head	Butt Weld	SN 65173	Vol	1	33% 33% 34%	One Two Three	33 66 100	<u>EXAMINE</u> <u>ENTIRE</u> <u>ACCESSIBLE</u> <u>LENGTH</u>
130	<u>SHELL-TO-FLANGE WELD</u> 1- Reactor Vessel	Butt Weld	SN 65173	Vol	1	50% * 0% 100% **	One Two Three	50 50 100	* EXAM FROM FLANGE MATING SURFACE.  **AUTOMATED EXAM CORE BARREL REMOVED.
140	<u>HEAD-TO-FLANGE WELD</u> 2- Closure Head	Butt Weld	SN 65173	Vol, S	1	33% 33% 34%	One Two Three	33 66 100	REV. 2 12-15-98





TABLE 1-2

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 200	<u>EXAM CATEGORY B-B:</u> <u>PRESSURE RETAINING</u> <u>WELDS IN VESSELS</u> <u>OTHER THAN REACTOR</u> <u>VESSELS</u>								
210	<u>PRESSURIZER</u> <u>SHELL TO HEAD WELDS</u>								
211	<u>CIRCUMFERENTIAL AND</u>								
212	<u>LONGITUDINAL</u>								
	5- Pressurizer Shell to bottom Head	Butt Weld	SN 65373	Vol	1	33% 33% 34%	One Two Three	33 66 100	*1 FOOT MIN. OF EACH LONGITUDINAL WELD THAT INTERSECTS THE SCHED- ULED CIRC. WELDS WILL BE EXAMINED.
	5- Pressurizer Shell to Top Head	Butt Weld	SN 65373	Vol	1	33% 33% 34%	One Two Three	33 66 100	
220	<u>HEAD WELDS</u>	None	-	-	-	-	-	-	
221	<u>CIRCUMFERENTIAL</u>	None	-	-	-	-	-	-	
222	<u>MERIDIONAL</u>	None	-	-	-	-	-	-	
230	<u>STEAM GENERATORS</u> <u>HEAD WELDS</u>								
231	<u>CIRCUMFERENTIAL</u>								
	3- Steam Generator 1	Butt Welds	SN 65273-1	Vol	3	1 1 1 **	One Two Three	33 67 100	**STAY- CYLINDER EXAMS
	4- Steam Generator 2	Butt Welds	SN 65273-2	Vol	3	1 1 1 **	One Two Three	33 67 100	**STAY CYLINDER EXAMS

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**APS****PALO VERDE NUCLEAR GENERATING STATION  
10 YEAR INTERVAL - EXAMINATION SUMMARY****ASME CLASS 1**TABLE 1-2  
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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
232	<u>MERIDIONAL</u>								
	3- Steam Generator 1	Butt Welds	SN 65273-1	Vol	6	2 1 3	One Two Three	33 50 100	MULTIPLE VESSELS PERCENTAGES COMBINED
	4- Steam Generator 2	Butt Welds	SN 65273-2	Vol	6	0 5 1	One Two Three	- 83 100	
240	<u>TUBESHEET TO HEAD</u>								
	3- Steam Generator 1	Butt Welds	SN 65273-1	Vol	2	1 0 1 *	One Two Three	50 50 100	*STAY- CYLINDER EXAMS
	4- Steam Generator 2	Butt Welds	SN 65273-2	Vol	2	0 1 1 *	One Two Three	- 50 100	
250	<u>HEAT EXCHANGERS</u>								
251	<u>HEAD WELDS</u>	None	-	-	-	-	-	-	
252	<u>CIRCUMFERENTIAL</u>	None	-	-	-	-	-	-	
253	<u>MERIDIONAL</u>	None	-	-	-	-	-	-	
260	<u>LONGITUDINAL</u>								
261	<u>TUBESHEET TO SHELL</u>								
	<u>(OR HEAD) WELDS</u>	None	-	-	-	-	-	-	
	<u>TUBESHEET TO SHELL</u>	None	-	-	-	-	-	-	

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## 10 YEAR INTERVAL - EXAMINATION SUMMARY

ASME CLASS 1

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
690	<u>STEAM GENERATORS</u>	None	-	-	-	-	-	-	*A SUPPLEMENTAL VT EXAM WILL BE PERFORMED 100% PER REFUELING OUTAGE IN CONJUNCTION WITH EXAM CAT. B-P (SEE IEIN 80-27) **SUPPLEMENTED BY VISUAL (EACH REMOVAL) AND SUR- FACE (AT 5 YEAR INTERVALS) EXAMS WHEN REMOVED (SEE IEB 82-02)
6100	<u>BOLTS AND STUDS</u>	None	-	-	-	-	-	-	
	<u>FLANGE SURFACE WHEN</u>								
	<u>CONNECTION DISAS-</u>								
	<u>SEMBLED</u>								
6110	<u>NUTS, BUSHINGS, AND</u>	None	-	-	-	-	-	-	
	<u>WASHERS</u>	None	-	-	-	-	-	-	
	<u>HEAT EXCHANGERS</u>								
6120	<u>BOLTS AND STUDS</u>	None	-	-	-	-	-	-	
6130	<u>FLANGE SURFACE WHEN</u>	None	-	-	-	-	-	-	
	<u>CONNECTION DISAS-</u>								
	<u>SEMBLED</u>								
6140	<u>NUTS, BUSHINGS, AND</u>	None	-	-	-	-	-	-	
	<u>WASHERS</u>								
	<u>PIPING</u>								
6150	<u>BOLTS AND STUDS</u>	None	-	-	-	-	-	-	
6160	<u>FLANGE SURFACE WHEN</u>	None	-	-	-	-	-	-	
	<u>CONNECTION DISAS-</u>								
	<u>SEMBLED</u>								
6170	<u>NUTS, BUSHINGS, AND</u>	None	-	-	-	-	-	-	
	<u>WASHERS</u>								
	<u>PUMPS</u>								*A SUPPLEMENTAL VT EXAM WILL BE PERFORMED 100% PER REFUELING OUTAGE IN CONJUNCTION WITH EXAM CAT. B-P (SEE IEIN 80-27) **SUPPLEMENTED BY VISUAL (EACH REMOVAL) AND SUR- FACE (AT 5 YEAR INTERVALS) EXAMS WHEN REMOVED (SEE IEB 82-02)
6180	<u>BOLTS AND STUDS**</u>								
	16-Reactor Coolant Pump 1A	Flange Studs	4.33" x 32.87"	Vol*	16	5 5 6	One Two Three	31 62 100	
	17-Reactor Coolant Pump 1B	Flange Studs	4.33" x 32.87"	Vol*	16	5 5 6	One Two Three	31 62 100	
	18-Reactor Coolant Pump 2A	Flange Studs	4.33" x 32.87"	Vol*	16	5 5 6	One Two Three	31 62 100	
	19-Reactor Coolant Pump 2B	Flange Studs	4.33" x 32.87"	Vol*	16	5 5 6	One Two Three	31 62 100	

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**APS**PALO VERDE NUCLEAR GENERATING STATION  
10 YEAR INTERVAL - EXAMINATION SUMMARY

ASME CLASS 1

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
6190	<u>FLANGE SURFACE WHEN CONNECTION DISAS- SEMBLED</u>								Note Request for Relief # 14
	16, 17, 18 and 19- Reactor Coolant Pumps 1A, 1B, 2A, 2B	Flange Surface	CASING SN 1A - 1259 1B - 1261 2A - 1260 2B - 1262	VT-1	16 per pump	*	One Two Three	*	*100% EXAM WHEN DISASSEMBLED (THERE ARE NO BUSHINGS IN THE PUMP FLANGES) **THE CLAMPING RING WILL BE EXAMINED (THERE ARE NO WASHERS)
6200	<u>NUTS, BUSHINGS AND WASHERS**</u>								
	16-Reactor Coolant Pump 1A	Nuts & Clamping Ring	4.528" x 7.283"	VT-1	16	5 5 6	One Two Three	31 62 100	
	17-Reactor Coolant Pump 1B	Nuts & Clamping Ring	4.528" x 7.283"	VT-1	16	5 5 6	One Two Three	31 62 100	
	18-Reactor Coolant Pump 2A	Nuts & Clamping Ring	4.528" x 7.283"	VT-1	16	5 5 6	One Two Three	31 62 100	
	19-Reactor Coolant Pump 2B	Nuts & Clamping Ring	4.528" x 7.283"	VT-1	16	5 5 6	One Two Three	31 62 100	
6210	<u>VALVES</u>								
6220	<u>BOLTS AND STUDS</u>	None	-	-	-	-	-	-	
	<u>FLANGE SURFACE WHEN CONNECTION DISAS- SEMBLED</u>	None	-	-	-	-	-	-	
6230	<u>NUTS, BUSHINGS AND WASHERS</u>	None	-	-	-	-	-	-	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 800	<u>EXAM CATEGORY B-H: INTEGRAL ATTACH- MENTS FOR VESSELS</u>								
810	<u>REACTOR VESSEL INTEGRALLY WELDED ATTACHMENTS</u>	None	-	-	-	-	-	-	
820	<u>PRESSURIZER INTEGRALLY WELDED ATTACHMENTS</u>								Note Relief for Request # 14
	5- Pressurizer	Support Skirt	SN 65373	S, Vol	1	33% 33% 34%	One Two Three	33 66 100	
830	<u>STEAM GENERATORS INTEGRALLY WELDED ATTACHMENTS</u>								
	3- Steam Generator 1	Support Skirt	SN 65273-1	Vol, S	1	33% * 34%	One Two Three	33* * 100*	* MULTIPLE VESSELS, EXAMINATIONS TOTAL 100% SUPPORT SKIRT WELD IN 1 STEAM GENERATOR.
	4- Steam Generator 2	Support Skirt	SN 65273-2	Vol, S	1	* 33% *	One Two Three	* 66 *	
840	<u>HEAT EXCHANGERS INTEGRALLY WELDED ATTACHMENTS</u>	None	-	-	-	-	-	-	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 900	<u>EXAM CATEGORY B-1:</u> <u>PRESSURE RETAINING</u> <u>WELDS IN PIPING</u>								
910	<u>NOMINAL PIPE SIZE ≥ 4</u> <u>IN.</u>								
911 912	<u>CIRCUMFERENTIAL AND</u> <u>*LONGITUDINAL WELDS</u>								* THE LESSER OF 12" OR 1 PIPE DIAMETER LENGTH FROM SCHEDULED CIRC WELD INTERSECTION WILL BE EXAMINED
	6- RCS Primary Piping	HL 1 HL 2 CL 1A to RCP CL 1B to RCP CL 2A to RCP CL 2B to RCP CL 1A to RPV CL 1B to RPV CL 2A to RPV CL 2B to RPV	RC-32-42" ID RC-63-42" ID RC-33-30" ID RC-30-30" ID RC-73-30" ID RC-84-30" ID RC-34-30" ID RC-31-30" ID RC-79-30" ID RC-93-30" ID	S, Vol	62	7 6 9	One Two Three	11 21 35	AUTOMATED EXAM OF NOZZLE TO EXTENSION AND EXTENSION TO PIPE WELDS
	20-PZR Surge Line	Butt Welds	RC-28-12"	S, Vol	11	1 0 2	One Two Three	9 9 27	
	21-SD Cooling Loop 1	Butt Welds	RC-51-16" SI-240-16"	S, Vol	19	2 2 2	One Two Three	11 21 32	
	22-SD Cooling Loop 2	Butt Welds	RC-68-16" SI-193-16	S, Vol	18	2 2 3	One Two Three	11 22 39	
	23-SI Loop 1A	Butt Welds	SI-207-14" SI-203-12"	S, Vol	18	3 0	One Two	17 17	
						2**	Three	28	**Additional Weld Added Per IN 97-19

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**ASME CLASS 1**

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# PALO VERDE NUCLEAR GENERATING STATION 10 YEAR INTERVAL - EXAMINATION SUMMARY

## ASME CLASS 1

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 1200	EXAM CATEGORY B-L-1. B-M-1: PRESSURE RETAINING WELDS IN PUMP CASINGS AND VALVE BODIES; EXAM CATEGORY B-L-2. B-M-2: PUMP CASINGS AND VALVE BODIES								
1210	<u>PUMPS</u> <u>PUMP CASING WELDS</u>	None							
1220	<u>PUMP CASINGS</u>								
	16-RC Pump 1A 17-RC Pump 1B 18-RC Pump 2A 19-RC Pump 2B	Internal Surfaces	1259 1261 1260 1262	VT-3	4	Examine the Internal Surfaces in 1 Pump	*	100	* BY THE END OF THE INTERVAL Note Request for Relief # 14
1230	<u>VALVES</u> <u>VALVES, NOMINAL PIPE</u> <u>SIZE &lt; 4 IN. VALVE</u> <u>BODY WELDS</u>	None							
1240	<u>VALVES, NOMINAL PIPE</u> <u>SIZE ≥ 4 IN. VALVE</u> <u>BODY WELDS</u>								
	Borg Warner Gate Valves Utilizing Forged Construction	UV-651 UV-653 UV-652 UV-654 UV-634 UV-644 UV-614 UV-624	RC-51-16" SI-240-16" RC-68-16" SI-193-16" SI-207-14" SI-223-14" SI-160-14" SI-179-14"	Vol	8	Examine the Weld in 1 Valve	*	100	* BY THE END OF THE INTERVAL

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 1500	<u>EXAMINATION CATEGORY</u> <u>B-P ALL PRESSURE</u> <u>RETAINING COMPONENTS</u>								Note Request for Relief # 11 & 12
	<u>SYSTEM LEAKAGE TEST</u>								
1510	Reactor Vessel	Pressure		VT-2	-	Entire Pressure	*	100	* EACH REFUELING
1520	Pressurizer	Retaining				retaining boundary	***		OUTAGE
1530	Steam Generators	Boundary				IWA-5000			
1540	Heat Exchangers					IWB-5000			
1550	Piping								
1560	Pumps								
1570	Valves								
	<u>SYSTEM HYDRO-TEST</u>								
1511	Reactor Vessel	Pressure		VT-2	-	Entire Pressure	**	100	** BY THE END OF
1521	Pressurizer	Retaining				retaining boundary			THE INTERVAL
1531	Steam Generators	Boundary				IWA-5000			
1541	Heat Exchangers					IWB-5000			
1551	Piping								*** PERFORM
1561	Pumps								WALKDOWN AT THE
1571	Valves								BEGINNING OF EACH
									REFUELING OUTAGE
									FOR GENERIC LETTER
									88-05. IN ADDITION,
									WALKDOWN REQUIR-
									MENTS SHALL BE
									EVALUATED FOR
									SHUTDOWNS
									FOLLOWING
									OPERATION LONGER
									THAN
									APPROXIMATELY 6
									MONTHS IN MODE 1
									OR 2.

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
* F 110 F 120 F 130 F 140 F 210 F 220 F 230 F 240 F 310 F 320 F 330 F 340 F 350	EXAM CATEGORY E-A: <u>PLATE AND SHELL</u> <u>TYPE SUPPORTS</u> and EXAM CATEGORY E-B: <u>LINEAR TYPE SUPPORTS</u> and EXAM CATEGORY E-C: <u>COMPONENT STANDARD</u> <u>SUPPORTS</u>								REQUEST FOR RELIEF #1 & #3  * INCLUDES EXAM ITEMS IDENTIFIED AS APPLICABLE.  ** NDE METHOD INCLUDES VT-4 EXAMS, WHERE APPLICABLE.
	1- Reactor Vessel	Support Columns	SN 65173	VT-3	4	0 *** 0 4	One Two Three	0 0 100	*** REQUEST FOR RELIEF # 6 WAS WITHDRAWN
	3- Steam Generator 1	Support Skirt	SN 65273-1	VT-3	1	1 0 0	One Two Three	100 100 100	
	4- Steam Generator-2	Support Skirt	SN 65273-2	VT-3	1	0 1 0	One Two Three	- 100 100	
	5- Pressurizer	Support Skirt	SN 65373	VT-3	1	0 0 1	One Two Three	- - 100	
	16-Reactor Coolant Pump 1A	Vertical and Lateral Supports	SN 1111-1A	VT-3	10	2 4 4	One Two Three	20 60 100	
	17-Reactor Coolant Pump 1B	Vertical and Lateral Supports	SN 1111-1B	VT-3	10	2 4 4	One Two Three	20 60 100	
	18-Reactor Coolant Pump 2A	Vertical and Lateral Supports	SN 1111-2A	VT-3	10	4 0 6	One Two Three	40 40 100	
	19-Reactor Coolant Pump 2B	Vertical and Lateral Supports	SN 1111-2B	VT-3	10	4 0 6	One Two Three	40 40 100	

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## ASME CLASS 2

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
320	<u>CONTINUED</u>								
	91-West Wrap	Attachments	SI-70	S	4	4	One	-	
	92-West Wrap	Attachments	SI-239 SI-241	S	3	1 2	One Two	- -	
	93-West Wrap	Attachments	SI-89	S	1	1	Two	-	
	94-SI A & 88'	Attachments	SI-70	S	2	2	Two	-	
	95-SI B & 88'	Attachments	SI-194	S	1	1	Three	-	
	96-SI LPSI 1A	Attachments	SI-202	S	2	2	Three	-	
	99-SI LPSI 2B	Attachments	SI-174	S	1	1	Two	-	
	100-SI LPSI A	Attachments	SI-7 SI-369	S	2	1 1	One Two	- -	
	101-SI LPSI B	Attachments	SI-30	S	1	1	Three	-	
	Total Safety Injection			S	30	10 9 11	One Two Three	33 63 100	
330	<u>PUMPS</u> <u>INTEGRALLY WELDED</u> <u>ATTACHMENTS</u>								
	72-LPSI Pump Loop 1	Attachment Lugs	SN 0876-44	S	3	2 1	One Two Three	66 100 100	
	75-LPSI Pump Loop 2	Attachment Lugs	SN 0876-45	S	3	0 1 2	One Two Three	- 33 100	
	78-Containment Spray Pump Loop 1	Attachment Lugs	SN 0876-46	S	3	2 1 0	One Two Three	66 100 100	
	-								

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## ASME CLASS 2

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[illegible]





**APS**
**PALO VERDE NUCLEAR GENERATING STATION  
10 YEAR INTERVAL - EXAMINATION SUMMARY**
**ASME CLASS 2**

 TABLE 2-IWF  
PAGE 2 OF 6

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
F110 F120 F130 F140 F210 F220 F230 F240 F310 F320 F330 F340 F350	<u>CONTINUED</u> 50-Main Steam SG-2 90° MSSS	Supports	SG-209	VT-3	1	0 0 1	One Two Three	- - 100	
	51-Atmosphere Dump SG-1	Supports	SG-59 SG-70	VT-3	2	1 1 0	One Two Three	50 100 100	
	52-Atmosphere Dump SG-2	Supports	SG-84 SG-103	VT-3	2	0 0 2	One Two Three	- - 100	
	53-Steam to Aux. Feedwater System	Supports	SG-81 SG-83	VT-3	8	4 2 2	One Two Three	50 75 100	
	54-Feedwater SG-1 Inside Cont.	Supports	SG-2 SG-13	VT-3	19	6 7 6	One Two Three	30 65 100	
	55-Feedwater SG-2 Inside Cont.	Supports	SG-5 SG-14	VT-3	19	8 7 4	One Two Three	42 79 100	
	56-Feedwater SG-1 MSSS.	Supports	SG-202	VT-3	1	0 1 0	One Two Three	- 100 100	
	57-Feedwater SG-2 MSSS	Supports	SG-205	VT-3	1	0 0 1	One Two Three	- - 100	
	58-Aux. and Down- comer Feedwater SG-1 Inside Cont.	Supports	SG-8 AF-4	VT-3	22	7 7 8	One Two Three	32 64 100	
	59-Aux. and Down- comer Feedwater SG-2 Inside Cont.	Supports	SG-11 AF-6	VT-3	22	6 6 10	One Two Three	27 55 100	
	60-Downcomer Feed- water SG-1 MSSS	Supports	SG-200	VT-3	3	1 0 2	One Two Three	33 33 100	
	61-Downcomer Feed- water SG-2 MSSS	Supports	SG-203	VT-3	3	0 2 1	One Two Three	- 66 100	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
F110 F120 F130 F140 F210 F220 F230 F240 F310 F320 F330 F340 F350	<u>CONTINUED</u>								
	88-Safety Injection	Supports	SI-72 SI-73	VT-3	14	8 6	One Three	- -	
	89-Safety Injection	Supports	SI-173 SI-194	VT-3	5	4 1	One Three	- -	
	90-Safety Injection	Supports	SI-134	VT-3	2	2	Two	-	
	91-Safety Injection	Supports	SI-70 SI-71	VT-3	10	7 2 1	One Two Three	- - -	
	92-Safety Injection	Supports	SI-2 SI-239 SI-241	VT-3	12	5 5 2	One Two Three	- - -	
	93-Safety Injection	Supports	SI-89	VT-3	4	2 2	Two Three	- -	
	94-Safety Injection	Supports	SI-70 SI-89 SI-241	VT-3	15	3 7 5	One Two Three	- - -	
	95-Safety Injection	Supports	SI-72 SI-134 SI-194	VT-3	18	6 10 2	One Two Three	- - -	
	96-LPSI 1A	Supports	SI-202	VT-3	18	3 8 7	One Two Three	- - -	
	97-LPSI 1B	Supports	SI-220	VT-3	27	10 7 10	One Two Three	- - -	
	98-LPSI 2A	Supports	SI-155	VT-3	6	2 4	One Two	- -	
	99-LPSI 2B	Supports	SI-174	VT-3	10	5 5	Two Three	- -	

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# PALO VERDE NUCLEAR GENERATING STATION 10 YEAR INTERVAL - EXAMINATION SUMMARY

## ASME CLASS 2

TABLE 2-IWF  
PAGE 6 OF 6

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# APS

PALO VERDE NUCLEAR GENERATING STATION  
10 YEAR INTERVAL - EXAMINATION SUMMARY

ASME CLASS 3

TABLE 3-1  
PAGE 2 OF 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
	<u>EXAMINATION CATEGORY</u> <u>D-A. SYSTEMS IN SUP-</u> <u>PORT OF REACTOR</u> <u>SHUTDOWN FUNCTION</u> AND <u>EXAMINATION CATEGORY</u> <u>D-B. SYSTEMS IN SUP-</u> <u>PORT OF EMERGENCY</u> <u>CORE COOLING CON-</u> <u>TAINMENT HEAT RE-</u> <u>MOVAL. ATMOSPHERE</u> <u>CLEANUP AND REAC-</u> <u>TOR RESIDUAL HEAT</u> <u>REMOVAL</u> AND <u>EXAMINATION CATEGORY</u> <u>D-C. SYSTEMS IN SUP-</u> <u>PORT OF RESIDUAL</u> <u>HEAT REMOVAL FROM</u> <u>SPENT FUEL STORAGE</u> <u>POOL</u>  <u>SYSTEM IN SERVICE OR FUNCTIONAL</u> <u>TESTS ***</u>								
D110 D210 D310	Pressure Retaining Components	Pressure Retaining Boundry	-	VT-2	-	Entire Pres- sure Retain- ing Boundry IWA-5000 IWD-5000	*	100	*EACH INSPECTION PERIOD.
D110 D210 D310	Pressure Retaining Components	Pressure Retaining Boundry	-	VT-2	-	Entire Pres- sure Retain- ing Boundry  IWA-5000 IWD-5000	**	100	**EACH INSPECTION INTERVAL  ***REQUEST FOR RELIEF # 7, 8, & 11  ( # 8 withdrawn )

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**APS****PALO VERDE NUCLEAR GENERATING STATION  
10 YEAR INTERVAL - EXAMINATION SUMMARY****ASME CLASS 3**TABLE 3-IWF  
PAGE 1 OF 1

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
F110 F120 F130 F140 F210 F220 F230 F240 F310 F320 F330 F340 F350	<u>EXAM CATEGORY E-A:</u> <u>PLATE AND SHELL</u> <u>TYPE SUPPORTS</u> <u>AND</u> <u>EXAM CATEGORY E-B:</u> <u>LINEAR TYPE SUPPORTS</u> <u>AND</u> <u>EXAM CATEGORY E-C:</u> <u>COMPONENT STANDARD</u> <u>SUPPORTS</u>			**					*INCLUDES EXAM ITEMS IDENTIFIED, AS APPLI- CABLE.  **NDE METHOD INCLUDES VT-4 EXAMS, WHERE APP- LICABLE.
	All Class 3 Systems (Except Auxiliary Feedwater)	Support Components	All lines greater than 4" nominal pipe size	VT-3	All	100%	Each In- spection Interval	100%	REQUEST FOR RELIEF # 1, 3, & 14
	Auxiliary Feedwater Systems	Support Components	All lines	VT-3	All	100%	Each In- spection Interval	100%	

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# APS PALO VERDE NUCLEAR GENERATING STATION

## 10 YEAR INTERVAL - EXAMINATION SUMMARY

(RHR, ECCS, and CHR SYSTEMS)

ASME CLASS 2

TABLE 2-CFR  
PAGE 3 OF 6

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAM AMOUNT		INSPECTION PERIOD	(40 YR) 10 YR %	REMARKS AND RELIEF REQUESTS
						40 YR	10 YR			
511 512	CONTINUED									
		20" x 0.500"	SI-70	S,Vol	14	7				
			SI-72	S,Vol	14	7				
	88 & 91 Safety Injection East and West Wraps	Butt Welds 10" x 0.365"			(52)	(16)				
			SI-172	S,Vol	4	2	2	One		
			SI-71	S,Vol	2	1	2	Two		
							1	Three		
		12" x 0.375"	SI-72	S,Vol	17	4				
			SI-73	S,Vol	6	2				
			SI-70	S,Vol	9	2				
			SI-71	S,Vol	8	2				
		20" x 0.500"	SI-72	S,Vol	3	1				
			SI-70	S,Vol	3	2				
	89 & 92 Shutdown Cooling Suction East and West Wraps	Butt Welds 10" x 0.250"			(64)	(33)				
		**10" x 0.365"	SI-173	S,Vol	11	6	5	One		
			SI-239	S,Vol	10	5	1	Two		**One Weld per line
							2	Three		
		12" x 0.250"	SI-38	S,Vol	4	2				
			SI-2	S,Vol	10	5				
		16" x 0.312"	SI-194	S,Vol	8	4				
			SI-241	S,Vol	11	6				
			SI-173	S,Vol	2	1				
		18" x 0.312"	SI-194	S,Vol	3	1				
			SI-241	S,Vol	5	3				

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RELIEF REQUEST  
INDEX

<u>NUMBER</u>	<u>DESCRIPTION</u>
1.	Hydraulic and Mechanical Snubbers will be tested in accordance with PVNGS Technical Specifications.
2.	Withdrawn
3.	Insulation will not be removed for visual examinations or welded or mechanical attachments.
4.	Level III Personnel will be recertified by examination every 5 years.
5.	Withdrawn
6.	Withdrawn
7.	Class 2 and 3 Systems Pressure Test (revised)
8.	Withdrawn
9.	Steam Generator Handhole Pressure Test
10.	Main Steam Nozzle Volumetric Examination
11.	Code Case N498-1
12.	Class 1 Pressure Test Boundary
13.	Reactor Vessel Shell and Head Coverage
14.	Misc. Code Limited Examinations



RELIEF REQUEST NO. 1

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
HYDRAULIC AND MECHANICAL SNUBBERS	1	1-IWF	N/A	N/A
	2	2-IWF	N/A	N/A
	3	3-IWF	N/A	N/A

CODE REQUIREMENT

Perform inservice functional testing of hydraulic and mechanical snubbers in accordance with IWF-5000

BASIS

A detailed and comprehensive testing program for snubbers is contained in the PVNGS Technical Specifications.

9-3 ALTERNATE EXAMINATION

The requirements for testing snubbers will be in accordance with the PVNGS Technical Specifications, Section 4.7.9.

SCHEDULE FOR IMPLEMENTATION

First Ten Year Inspection Interval

APPROVAL

NRC letter dated October 21, 1987, from E.A. Licitra, NRC, to E.E. Van Brunt, Jr., "Inservice Inspection Programs Palo Verde, Unit 1, 2, & 3".





RELIEF REQUEST NO. 2

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
NOZZLE INSIDE RADIUS SECTIONS				
PRESSURIZER	1	1-3	B3.120	B-D
STEAM GENERATOR	1	1-3	B3.140	B-D
STEAM GENERATOR	2	2-2	C2.22	C-B
SHUT DOWN COOLING HEAT EXCHANGERS	2	2-2	C2.22	C-B

WITHDRAWN

9-4

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RELIEF REQUEST NO. 3

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
SUPPORT COMPONENTS	1	1-IWF	ALL ITEMS	F-A, F-B & F-C
	2	2-IWF		F-A, F-B & F-C
	3	3-IWF		F-A, F-B & F-C
INTEGRAL ATTACHMENTS	3	3-1		D-A, D-B & D-C

#### CODE REQUIREMENT

Perform visual examinations (VT-3) of the mechanical or welded attachments to the pressure retaining component on insulated systems.

#### 9-5 BASIS

The visual examinations of the mechanical or welded attachments will be performed to the extent practical. The insulation will not be removed to perform these examinations. It has been our experience that any loss of support capability or adequate restraint can usually be detected through the examination of uninsulated portions of the support, the accessible portions of the attachments through the insulation gaps, and or the surrounding insulation.

#### ALTERNATE EXAMINATION

The mechanical and welded attachments will be visually examined to the extent practical. The insulation will be removed from around the support attachment for further examinations whenever an abnormality is detected.

#### SCHEDULE FOR IMPLEMENTATION

First Ten Year Inspection Interval

#### APPROVAL

NRC letter dated October 21, 1987, from E.A. Licitra, NRC, to E.E. Van Brunt, Jr., "Inservice Inspection Programs Palo Verde, Unit 1, 2, & 3".

REV. 1  
12-23-91



RELIEF REQUEST NO. 4

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
N/A	N/A	N/A	N/A	N/A

#### CODE REQUIREMENT

All Level III personnel shall be recertified by examination on a triennial basis (IWA-2300(a)(1)).

#### BASIS

The 1986 Edition of Section XI and the 1983 Edition thru Summer 1983 Addenda of ASME III (Latest Edition and Addenda referenced in 10 CFR 55.55a) requires Level III personnel to be recertified every 5 years.

9-6

#### ALTERNATE EXAMINATION

All Level III personnel shall be recertified by examination every 5 years.

#### SCHEDULE FOR IMPLEMENTATION

First Ten Year Inspection Interval

#### APPROVAL

NRC letter dated October 21, 1987, from E.A. Licitra, NRC, to E.E. Van Brunt, Jr., "Inservice Inspection Programs Palo Verde, Unit 1, 2, & 3".

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12-23-91



RELIEF REQUEST NO. 5

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
N/A	N/A	N/A	N/A	N/A

WITHDRAWN





## RELIEF REQUEST NO. 6

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
Reactor Vessel Supports	1	1-IWF	F2.10 F2.20 F2.30 F2.40	F-B

WITHDRAWN



RELIEF REQUEST NO. 7

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
Piping Systems Penetrating Containment	2	2-7	C7.10, C7.20 C7.30, C7.40 C7.50, C7.60 C7.70, C7.80	C-H

#### CODE REQUIREMENT

The System Leakage Test and System Hydrostatic Test requirements of the 1980 Edition through and including the Winter 1981 Addenda includes essentially all ASME Class 2 piping.

#### 9-9 ALTERNATE EXAMINATION

Utilize 10CRF50 Appendix J Leak Rate Testing requirements and results to satisfy the ASME Section XI requirements. This would apply to the following mechanical/piping penetrations:

Penetration No:	System:	Line No:	P&ID No:	System ASME Classification
6	DW	055	DWP-002	
7	FP	096	FPP-006	
9	RD	259	RDP-001	
21	SI	088	SIP-002	2
22	SI	130	SIP-002	2
23	SI	007	SIP-001	2
24	SI	030	SIP-001	2
25A/B	HC	008	HCP-001	
28	SI	149	SIP-001	2
29	GA	009	GAP-001	
30	GA	002	GAP-001	
31	IA	069	IAP-003	
32A	HC	007	HCP-001	
33	NC	135	NCP-003	
34	NC	137	NCP-003	
35	HP	001	HPP-001	2
36	HP	002	HPP-001	2
38	HP	003	HPP-001	2
39	HP	004	HPP-001	2
42A	SS	004	SSP-001	2

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RELIEF REQUEST NO. 7 Cont'd

Penetration No:	System:	Line No:	P&ID No:	System ASME Classification
42B	SS	007	SSP-001	2
42C	SS	001	SSP-001	2
43	CH	122	CHP-002	2
44	CH	283	CHP-003	
45	CH	275	CHP-003	
50	PC	073	PCP-001	
51	PC	072	PCP-001	
52	GR	001	GRP-001	
53	FUEL TRANSFER TUBE		PCP-001	
54A	HC	006	HCP-001	
55A	HC	004	HCP-001	
56	CP	005	CPP-001	
57	CP	007	CPP-001	
58	CL	001	CLP-001	
59	IA	080	IAP-002	
60	WC	039	WCP-001	
61	WC	042	WCP-001	
62A	HC	005	HCP-001	
62B	CL	009	CLP-001	
62C	CL	008	CLP-001	
67	SI	114	SIP-002	2
77	SI	106	SIP-002	2
78	CP	006	CPP-001	
79	CP	008	CPP-001	

9-9A

BASIS

The applicable containment piping penetrations are subjected to 10 CFR 50, Appendix J testing. This Request for Relief was accepted for the 1st 10 Year Inspection Interval in the USNRC letter dated April 12, 1996, from W. H. Bateman to W. L. Stewart, "Evaluation of the First Ten Year Interval Inspection Program Plan, Revision 1, and Associated Request for Relief for Palo Verde Nuclear Generating Station, Units 1, 2, and 3." This Request for Relief has been revised to reflect ASME Class 2 piping systems and Code Case N498-1 (refer to Request for Relief #11) for the System Hydrostatic Test requirements.

SCHEDULE FOR IMPLEMENTATION

First Ten Year Inspection Interval

APPROVAL

Pending USNRC review and acceptance.

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RELIEF REQUEST NO. 9

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
Steam Generator Handhole Modification	2	N/A	IWA-5000 IWC-5000	NA

CODE REQUIREMENT

Perform hydrostatic pressure test (1.25 times the system design pressure) after repairs by welding.

BASIS

A detailed basis was provided under separate cover. The following is a brief summary:

- The hydrostatic pressure test must be performed with the vessel defueled due to testing prerequisites.
- This would require an additional reactor reassembly.
- The reactor coolant pumps would be used to raise and maintain temperatures in a precore type configuration at their upper design limit.
- All main steam safety valves and atmospheric dump vales would require removal and replacement with blind flanges.
- Additional supports would be required due to filing the steam lines with water.

ALTERNATE EXAMINATION

A system inservice test will be performed at normal operating pressures.

SCHEDULE FOR IMPLEMENTATION

First 10 Year Inspection Interval

APPROVAL

NRC letter dated April 8, 1993, from T. R. Quay to W. F. Conway, "REQUEST FOR RELIEF FROM THE ASME CODE, SECTION XI, HYDROSTATIC PRESSURE TEST REQUIREMENTS".

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RELIEF REQUEST NO. 10

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
Steam Generator Main Steam Nozzle Inner Radius Sections	2	2-2	C2.22	C-B

#### CODE REQUIREMENT

The 1980 Edition through and including the Winter 1981 Addenda of the ASME Section XI Code requires volumetric examination of the nozzle inside radius area.

#### ALTERNATE EXAMINATION

A surface examination was performed on the nozzles selected for examination.

#### BASIS

Due to the design of the PVNGS Steam Generator Main Steam Nozzles the volumetric examination is not practical. The nozzles have a protrusion into the steam generator. This area is accessible during outages through the secondary side manway. A copy of the nozzle drawing is attached that illustrated the geometric conditions.

#### SCHEDULE FOR IMPLEMENTATION

1st 10 Year Inspection Interval

#### APPROVAL

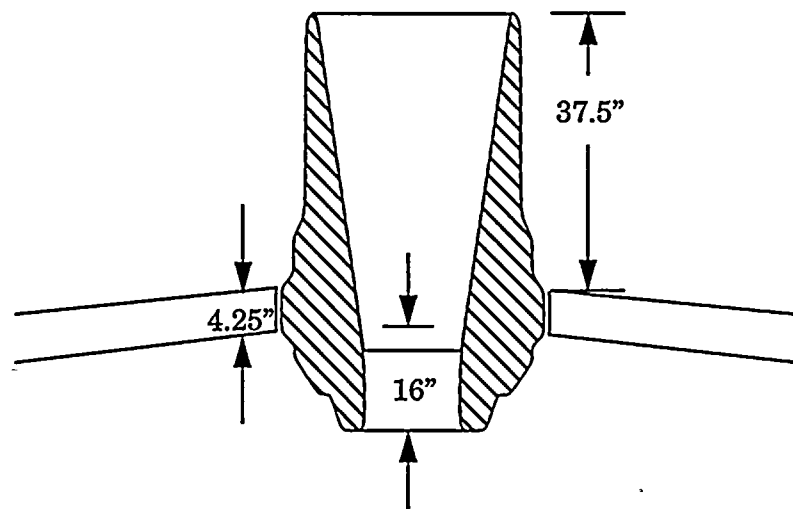
Pending USNRC review and acceptance.

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RELIEF REQUEST NO. 10 Cont'd



**Main Steam Nozzle Cross Section  
(Typical)**

9-13

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RELIEF REQUEST NO. 11

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
ALL ISI PROGRAM ITEMS AND COMPONENTS	1	1-15	B15.11, B15.21, B15.31 B15.41, B15.51, B15.61 B15.71	B-P
	2	2-7	C7.20, C7.40 C7.60, C7.80	C-H
	3	3-1	D1.10, D2.10 D3.10	D-A, D-B, D-C

CODE REQUIREMENT

9-14 The 1980 Edition through and including the Winter 1981 Addenda of the ASME Section XI code requires the performance of a System Hydrostatic Test during the end of the 10 Year Inspection interval. The boundaries, systems, and components are identified in the referenced ISI Program Tables.

ALTERNATE EXAMINATION

Perform a System Leakage Test for Class 1 and a System Pressure Test for Class 2 and 3 in accordance with the requirements of N498-1.

BASIS

Code Case N498 includes all ASME Class 1 and 2 systems and has been accepted by the USNRC in Regulation Guide 1.147. The N498-1 Code Case is essentially identical to the accepted Code Case, with the exception that it includes ASME Class 3 Systems. Therefore the basis for acceptance would be the same.

SCHEDULE FOR IMPLEMENTATION

First 10 Year Inspection Interval

APPROVAL

Pending USNRC review and acceptance.

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RELIEF REQUEST NO. 12

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
ASME Class 1 ISI PROGRAM ITEMS AND COMPONENTS	1	1-15	B15.11, B15.21, B15.31, B15.41 B15.51, B15.61, B15.71	B-P

#### CODE REQUIREMENT

9-15 The 1980 Edition through and including the Winter 1981 Addenda of the ASME Section XI code and Code Case N498 requires the boundary for the end of interval pressure test be extended to all Class 1 boundaries. This includes the small portion of pipe between two Class 1 isolation valves; or between a valve and blind flange.

#### ALTERNATE EXAMINATION

The visual examination performed during the System Leakage Test will be extended to include the small portion of pipe and downstream valve or blind flange. The first valve will not be opened. A list of these areas follows:

System:	Line No:	P&ID No:	Valve Description::	System:	Line No:	P&ID No:	Valve Description
CH	CH026	CHP001	3PCHNV848	RC	RC200	RCP002	3PRCNV900
CH	CH024	CHP001	3PCHNV849	RC	RC203	RCP002	3PRCNV903
CH	CH022	CHP001	3PCHNV859	RC	RC024	RCP002	3PRCNVR30
CH	CH020	CHP001	3PCHNV860	RC	RC024	RCP002	3PRCNV753
CH	CH026	CHP001	3PRCNV752	RC	RC022	RCP002	3PRCNV754
CH	CH520	CHP001	3PCHEVM41	RC	RC112	RCP002	3PRCNV869
CH	CH001	CHP001	3PCHEV853	RC	RC106	RCP002	3PRCNV868
RC	RC091	CHP001	3PRCEV061	RC	RC118	RCP002	3PRCNV871
RC	RC091	CHP001	3PRCEV063	RC	RC124	RCP002	3PRCNV870
RC	RC089	RCP001	3PRCEV332	SI	SI207	SIP002	3PSIEV882
RC	RC096	RCP001	3PRCEV333	SI	SI217	SIP002	3PSIEV974
RC	RC062	RCP001	3PRCEV001	SI	SI223	SIP002	3PSIEV883
RC	RC017	RCP001	3PRCEV062	SI	SI240	SIP002	3PSIAV892
RC	RC099	RCP001	3PRCEV057	SI	SI248	SIP002	3PSIAV902

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RELIEF REQUEST NO. 12 Cont'd

System:	Line No:	P&ID No:	Valve Description:	System:	Line No:	P&ID No:	Valve Description:
RC	RC005	CHP001	3PCHEV939	SI	SI248	SIP002	3PSIAV055
RC	RC005	CHP001	3PCHEVM42	SI	SI248	SIP002	3PSIAV906
RC	RC005	CHP001	3PCHEV096	SI	SI156	SIP002	3PSIAV880
RC	RC098	RCP001	3PRCEV056	SI	SI156	SIP002	3PSIAV804
				SI	SI179	SIP002	3PSIEV881
RC	RC069	RCP001	3PRCEV214	SI	SI175	SIP002	3PSIEV803
RC	RC070	RCP001	3PRCEV215	SI	SI193	SIP002	3PSIBV879
RC	RC060	RCP001	3PRCEV334	SI	SI225	SIP002	3PSIEV975
RC	RC018	RCP001	3PRCEV058	SI	SI203	SIP002	3PSIEV064
RC	RC179	RCP001	3PRCEV392	SI	SI199	SIP002	3PSIBV057
RC	RC058	RCP001	3PRCEV335	SI	SI248	SIP002	3PSIAV056
RC	RC020	RCP002	3PRCNV755	SI	SI221	SIP002	3PSIEV063
RC	RC202	RCP002	3PRCNV902	SI	SI199	SIP002	3PSIBV907
RC	RC201	RCP002	3PRCNV901	SI	SI240	SIP002	3PSIAV801

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BASIS

The normal reactor pressure boundary is examined during each refueling outage and no pressure boundary leakage has been noted. Currently these valves are independently verified closed prior to plant startup and are not manipulated during any procedurally guided plant evaluations while at power. Since these valves are not cycled at NOP/NOT, the opportunity to experience an incident where a valve will not reseal is increased. This can be due to several mechanisms, foreign material moving into the seating surface, stem failure while opening or closing, packing shifting, or valve binding. The opportunity for a packing leak will also present itself, with the added challenge of normal RCS pressure behind it. Cycling of these valves and the resulting compensatory actions due to a leak can easily result in leakage and a forced unit shutdown or cooldown. Current operating procedures require these valves to remain closed with no exceptions. Valves that need to be operated are specifically identified to manipulate only in mode 5 (to prevent RCP seal damage).

SCHEDULE FOR IMPLEMENTATION

First Ten Year Inspection Interval

APPROVAL

Pending USNRC review and acceptance.

REV. 2  
12-15-98

RELIEF REQUEST NO. 13

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
Reactor Vessel and Closure Head Weld Coverage	1	1-1	B1.22	B-A

CODE REQUIREMENT

The 1980 Edition through and including the Winter 1981 Addenda of the ASME Section XI Code requires the Meridional Head Welds to be examined for 100% of the accessible length.

ALTERNATE EXAMINATION

The ultrasonic examinations of both the Closure Head and Bottom Head Meridional weld was performed to the extent possible. A sketch showing scan limitations is attached for both areas. The total coverage is estimated to be 31% for the closure head and 20% for the bottom head welds.

BASIS

These examinations are both limited by physical constraints. The sketches attached attempt to depict each limitation.

SCHEDULE FOR IMPLEMENTATION

First Inspection Interval

APPROVAL

Pending USNRC review and acceptance.

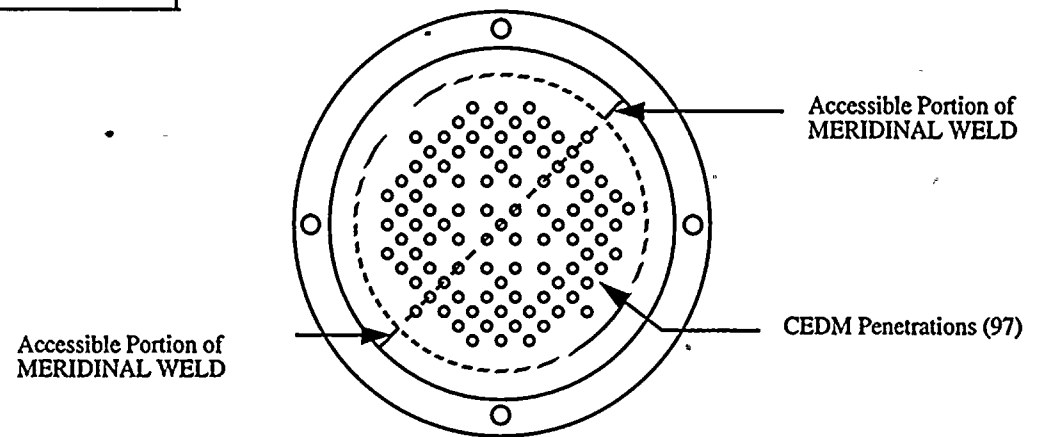
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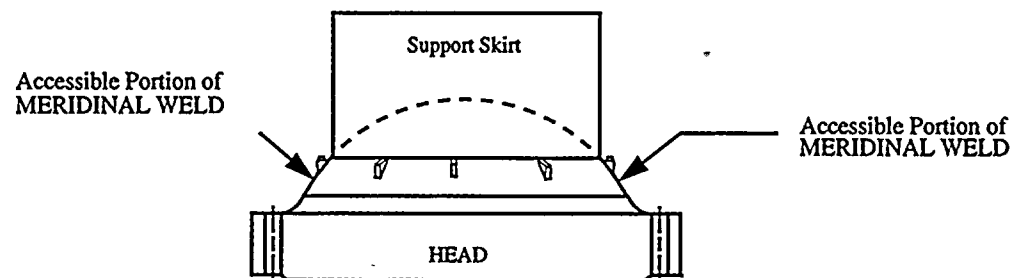
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RELIEF REQUEST NO. 13 Cont'd



CLOSURE HEAD  
TOP VIEW



CLOSURE HEAD  
SIDE VIEW

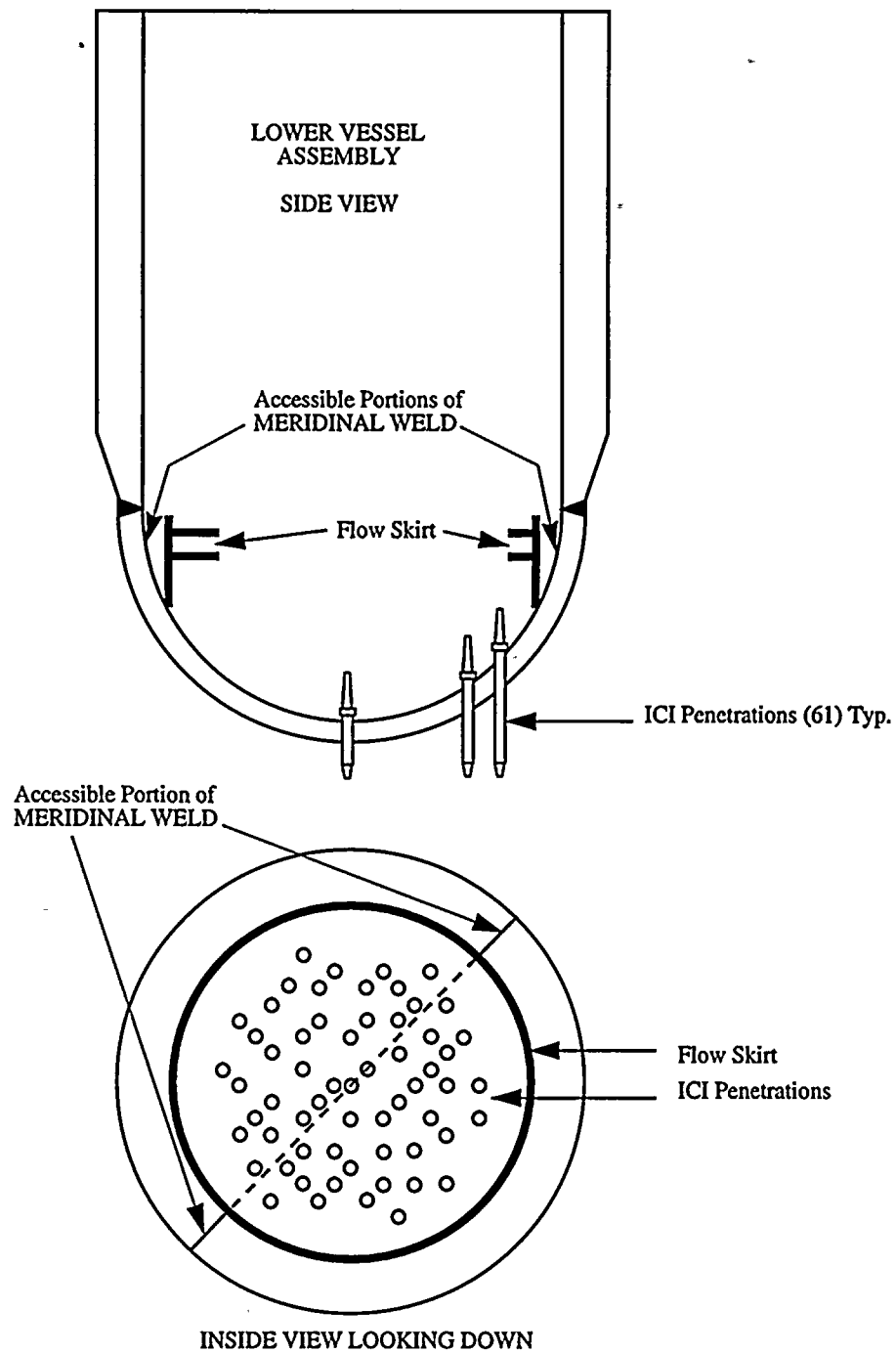
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REV2  
12-15-98



RELIEF REQUEST NO. 13 Cont'd

9-19



REV2  
12-15-98





RELIEF REQUEST NO. 14

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
Misc. Code Limited Examinations				
1. RCP Flange Ligaments (RCP1A, 1B, 2A, 2B)	1	1-6	B6.190	B-G-1
2. Pressurizer Skirt Weld (5-1)	1	1-8	B8.20	B-H
3. RCP Casing (Internal Surfaces)	1	1-12	B12.20	B-L-2
4. Integrally Welded Attachment	2	2-3	C3.20	C-C
5. Spray Pond Piping Supports	3	3-IWF	IWF	F-A, F-B, F-C

CODE REQUIREMENT

The 1980 Edition through and including the Winter 1981 Addenda of the ASME Section XI code requires 100% examinations unless otherwise noted in the code.

ALTERNATE EXAMINATION and BASIS

1. All four of the Unit 3 Reactor Coolant Pumps were disassembled during the first period. No examinations were performed at that time. The pumps were not disassembled during the remainder of the first interval. The examination of four Unit 1 pump flanges and two Unit 2 pump flanges have not revealed any abnormal conditions. Additionally the pump flanges were examined for leakage and boric acid accumulations through the piping penetrations of the motor support stands while in mode 3 after each refueling outage and no degraded conditions were detected. All Unit 3 RCP flanges will be examined to Section XI requirements at the next pump disassemblies.
2. Limitations were noted for the Pressurizer Skirt weld due mainly to the design. The attached sketch identifies the limitations for both volumetric and surface examinations. It should be noted that the ASME Code requires either volumetric or surface examinations be performed as applicable. Both examination techniques were applied to the weld from the outside. The inside surface area is considered inaccessible due to the pressurizer heaters, drain/instrumentation lines, and insulation. A volumetric examination was performed to augment the surface exam, but it also is limited to scans from the skirt side of the weld only.
3. All four of the Unit 3 Reactor Coolant Pumps were disassembled during the first period. No examinations were performed at that time. The pumps were not disassembled during the remainder of the first interval. All four Unit 3 pumps were examined remotely. The examinations were performed by Wesdyne International using a submersible robotic camera system. The examinations were accomplished by directing the submersible from the reactor vessel thru the cold leg piping and into the pump. The examinations were limited and 100% coverage of the internal surfaces could not be obtained. No abnormal conditions were detected during the examinations. All four Unit 1 pumps were examined during refueling outage # 7. These examinations were performed from the top of the pumps with the diffusers installed. No abnormal conditions were detected during the examinations. Examination of the internal pressure boundary shall be performed to the extent practical on all Unit 3 pumps at the next disassembly.

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2.1.1.1

2.1.1.2

2.1.1.3

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4. The integrally welded attachments for SG-52-H5 and SG-05-H9 are limited due to proximity with structural steel and concrete. Due to this physical limitation, two adjacent integrally welded attachments ( $< 3/4$ " design thickness) will be examined at the next outage for Unit 3.
5. The examination of the Spray Pond (Ultimate Heat Sink) piping supports was performed utilizing trained and certified divers. However, due to the environment in these spray ponds a deposit layer covers a majority of the examination area. If these examinations reveal abnormal indications such as bent, missing, or broken, components; then that support will be cleaned to enable a detailed examination of the welds.

SCHEDULE FOR IMPLEMENTATION

First available outage

APPROVAL

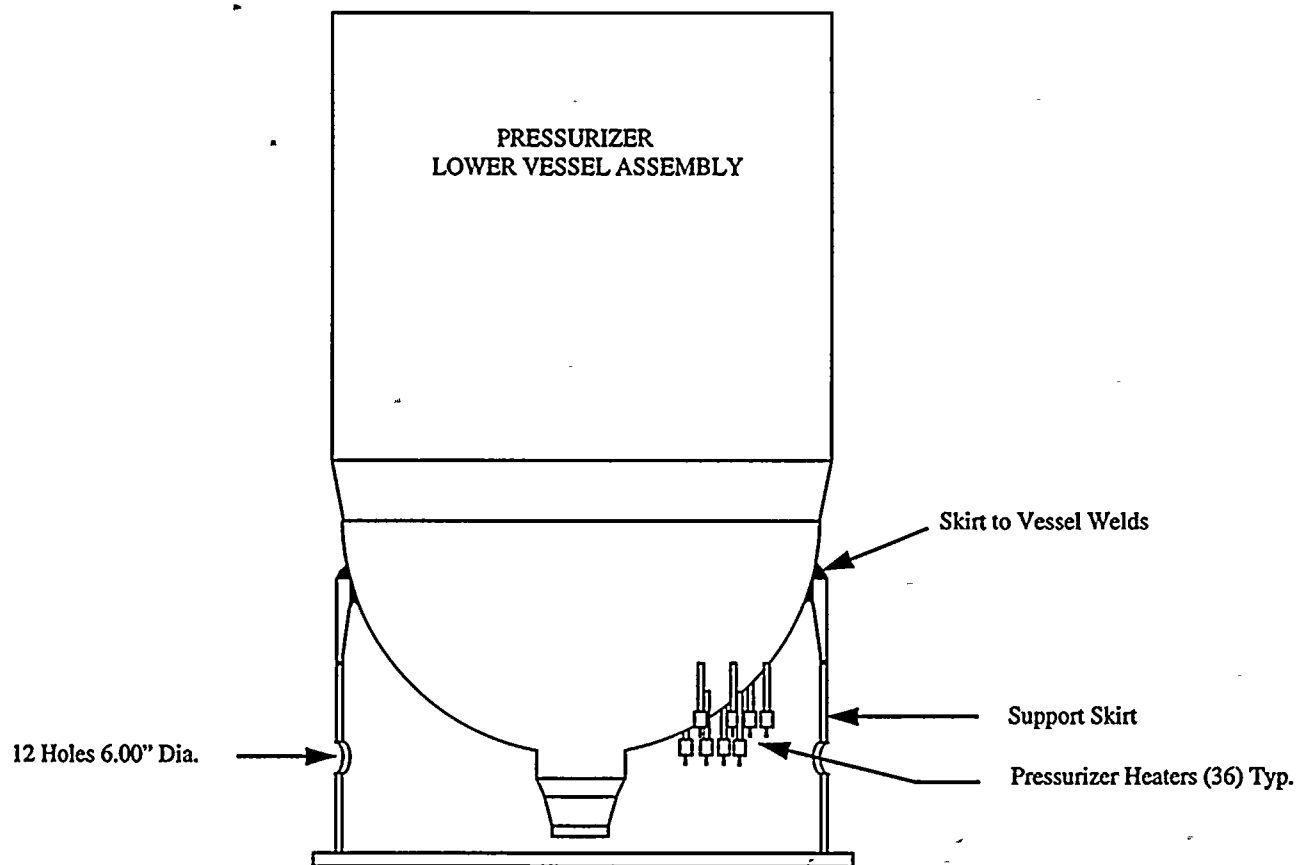
Pending USNRC review and acceptance.

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12-15-98



RELIEF REQUEST NO. 14 Cont'd



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REV2  
12-15-98

6-1-72

