

# GEORGIA POWER COMPANY

## INSERVICE INSPECTION PROGRAM

### (ISI-P-006)

FOR

VOGTLE ELECTRIC GENERATING PLANT

UNIT 1

PREPARED BY

SOUTHERN NUCLEAR OPERATING COMPANY  
INSPECTION AND TESTING SERVICES GROUP

REV.	DATE	DESCRIPTION	SNC				GPC	
			PREP'D BY (ITS)	REV'D BY (ITS)	APPV. DEPT. MGR. (ITS)	APPV. VOGTLE PROJECT NMS	APPV. MGR. TECH. SUPP.	APPV. GEN. MGR.
0	9/24/86	ISSUED FOR INSERVICE INSPECTION						
1	7/23/87	ADDS RELIEF REQUEST FOR PRESSURE TESTS						
2	4/01/88	INCORPORATE NRC COMMITMENTS						
3	1/20/89	ADDS RELIEF REQUEST FOR RR-52, 53, 54						
4	4/06/90	DELETED RELIEF REQUEST RR-45, 47, 48, 54 REVISED RR-12, 32						
5	6/10/91	INCORPORATES COMMENTS PER GPC Ltr. MSV-00318, 9/13/90	W/LW 6/10/91	6-10-91 DYS 6-10-91	12/E 6-14-91	J.Q. Ward 7-10-91	9-3-91	9/13/91
-								

VOGTLE ELECTRIC GENERATING PLANT - UNIT 1 (VEGP-1)  
INSERVICE INSPECTION (ISI) PROGRAM  
FIRST 10-YEAR INTERVAL  
(ISI-P-006)

REVISION 5 SUMMARY OF CHANGES

<u>Affected ISI Program Document Pages</u>	<u>Change</u>
2-2	Reference to Relief Request RR-1, which is being withdrawn in this ISI Program revision, has been deleted. (Reference Summary of Changes statement for Page 6-5 in this section for explanation.)
1-1, 3-4, 4-2, 4-3, 4-4 and 6-71	Corrected typographical errors.
3-6	Reference to Relief Request RR-33, which was withdrawn in Revision 2 of the ISI Program, has been deleted.
4-3	Reference to Relief Request RR-51, which is being withdrawn in this ISI Program revision, has been deleted. (Reference Summary of Changes statement for Pages 6-92 and 6-93 in this section for explanation.)
6-1 and 6-4	Add notation as appropriate that Relief Requests RR-1 and RR-51 are being withdrawn in this ISI program revision.
6-5	During recent inservice inspection activities, one hundred percent of the Code-required examination volume of the RPV flange-to-upper shell weld (weld examination ID No. 11201-V6-001-W03) was examined. Therefore, Relief Request RR-1 is being withdrawn in this ISI program revision.
6-30	Attachment 1 to Relief Request RR-17 has been revised to correct the elbow size in the component description from 29" to 31".
6-36, 6-36a, and 6-37	Relief Request RR-21 has been revised to reflect actual examination conditions and the receipt of new calibration blocks.

REVISION 5 SUMMARY OF CHANGES (Cont'd)

Affected ISI Program  
Document Pages

Change

6-43

Attachment 1 to Relief Request RR-24 has been revised to delete two welds (ID Nos. 11201-005-8 and 11201-009-1). Relief Request RR-24 is for partial coverage of Code-required examination volume. During recent inservice inspection activities one hundred percent of the Code-required examination volume was examined on the two aforementioned welds. Therefore, welds 11201-005-8 and 11201-009-1 do not require relief.

6-46, 6-47, 6-48, 6-49,  
6-49a, 6-49b, 6-49c, and  
6-49d

Relief Request RR-26 and Attachment 1 to RR-26 has been editorially revised to be similar in content to Relief Request RR-26 in the ISI Program (ISI-P-014) for VEGP-2.

6-57 and 6-57a

Relief Request RR-31 has been revised to add the discharge pulsation dampener (Tag No. 11208-V4-002) to the list of affected vessels. The "Basis For Relief" has been updated to allow for the use of a flat calibration block per Article 5 of ASME Section V, Paragraphs T-543.3.1 and 2. Attachment 1 has been added to the Relief Request.

6-92 and 6-93

The portion of the Auxiliary Component Cooling Water System covered by Relief Request RR-51 is not in the scope of Regulatory Guide 1.26, Quality Group Classification for water-, steam-, and radioactive waste-containing systems. Therefore, Relief Request RR-51 is being withdrawn in this ISI Program revision.

6-94

Relief Request RR-52 has been revised to correct a typographical error.

REVISION 5 SUMMARY OF CHANGES (Cont'd)

Affected ISI Program  
Document Pages

Change

- |     |                                                                                                                                                                     |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7-1 | Revised the section scope statement to indicate the Line Designation List contained in the program document is for information only. Corrected typographical error. |
| 8-1 | Revised the section scope statement to indicate the Equipment Designation List contained in the program document is for information only.                           |

## List of Effective Pages

Distribution, Rev. 5  
Table of Contents, Rev. 0  
Introduction:

Page 1-1,	Rev. 5
Page 1-2,	Rev. 0
Page 1-3,	Rev. 0
Page 1-4,	Rev. 2
Page 1-5,	Rev. 1
Page 1-6,	Rev. 2

## Class 1:

Page 2-1,	Rev. 0
Page 2-2,	Rev. 5
Page 2-3,	Rev. 0
Page 2-4,	Rev. 0
Page 2-5,	Rev. 0
Page 2-6,	Rev. 0
Page 2-7,	Rev. 1
Page 2-8,	Rev. 0
Page 2-9,	Rev. 0
Page 2-10,	Rev. 0
Page 2-11,	Rev. 0
Page 2-12,	Rev. 0
Page 2-13,	Rev. 1
Page 2-14,	Rev. 0
Page 2-15,	Rev. 3
Page 2-16,	Rev. 0
Page 2-17,	Rev. 0
Page 2-18,	Rev. 0
Page 2-19,	Rev. 0
Page 2-20,	Rev. 0
Page 2-21,	Rev. 0
Page 2-22,	Rev. 0
Page 2-23,	Rev. 4
Page 2-24,	Rev. 0

## Class 2:

Page 3-1,	Rev. 0
Page 3-2,	Rev. 0
Page 3-3,	Rev. 0
Page 3-4,	Rev. 5
Page 3-5,	Rev. 0
Page 3-6,	Rev. 5
Page 3-7,	Rev. 0
Page 3-8,	Rev. 0
Page 3-9,	Rev. 0
Page 3-10,	Rev. 0
Page 3-11,	Rev. 0
Page 3-12,	Rev. 4
Page 3-13,	Rev. 0



Class 3:

Page 4-1, Rev. 0  
Page 4-2, Rev. 5  
Page 4-3, Rev. 5  
Page 4-4, Rev. 5

Component Supports:

Page 5-1, Rev. 0  
Page 5-2, Rev. 0  
Page 5-3, Rev. 0  
Page 5-4, Rev. 0

Relief Requests:

Page 6-1, Rev. 5  
Page 6-2, Rev. 0  
Page 6-3, Rev. 4  
Page 6-4, Rev. 5  
Page 6-5, Rev. 5  
Page 6-6, Rev. 1  
Page 6-7, Rev. 1  
Page 6-8, Rev. 1  
Page 6-9, Rev. 1  
Page 6-10, Rev. 1  
Page 6-11, Rev. 1  
Page 6-12, Rev. 1  
Page 6-13, Rev. 1  
Page 6-14, Rev. 1  
Page 6-15, Rev. 1  
Page 6-16, Rev. 1  
Page 6-17, Rev. 1  
Page 6-18, Rev. 4  
Page 6-19, Rev. 1  
Page 6-20, Rev. 1  
Page 6-21, Rev. 1  
Page 6-22, Rev. 1  
Page 6-23, Rev. 1  
Page 6-24, Rev. 1  
Page 6-25, Rev. 1  
Page 6-26, Rev. 1  
Page 6-27, Rev. 1  
Page 6-28, Rev. 1  
Page 6-29, Rev. 1  
Page 6-30, Rev. 5  
Page 6-31, Rev. 1  
Page 6-32, Rev. 1  
Page 6-33, Rev. 1  
Page 6-34, Rev. 1  
Page 6-35, Rev. 1  
Page 6-36, Rev. 5  
Page 6-36a, Rev. 5  
Page 6-37, Rev. 5  
Page 6-38, Rev. 2  
Page 6-39, Rev. 1  
Page 6-40, Rev. 1  
Page 6-41, Rev. 1  
Page 6-42, Rev. 1

Relief Requests (continued):

Page 6-43, Rev. 5  
Page 6-44, Rev. 1  
Page 6-45, Rev. 1  
Page 6-46, Rev. 5  
Page 6-47, Rev. 5  
Page 6-48, Rev. 5  
Page 6-49, Rev. 5  
Page 6-49a, Rev. 5  
Page 6-49b, Rev. 5  
Page 6-49c, Rev. 5  
Page 6-49d, Rev. 5  
Page 6-50, Rev. 1  
Page 6-51, Rev. 1  
Page 6-52, Rev. 1  
Page 6-53, Rev. 1  
Page 6-54, Rev. 1  
Page 6-55, Rev. 1  
Page 6-56, Rev. 1  
Page 6-57, Rev. 5  
Page 6-57a, Rev. 5  
Page 6-58, Rev. 4  
Page 6-58a, Rev. 4  
Page 6-59, Rev. 4  
Page 6-60, Rev. 2  
Page 6-61, Rev. 1  
Page 6-62, Rev. 1  
Page 6-63, Rev. 1  
Page 6-64, Rev. 1  
Page 6-65, Rev. 0  
Page 6-66, Rev. 0  
Page 6-67, Rev. 0  
Page 6-68, Rev. 0  
Page 6-69, Rev. 0  
Page 6-70, Rev. 0  
Page 6-71, Rev. 5  
Page 6-72, Rev. 0  
Page 6-73, Rev. 0  
Page 6-74, Rev. 0  
Page 6-75, Rev. 0  
Page 6-76, Rev. 0  
Page 6-77, Rev. 0  
Page 6-78, Rev. 0  
Page 6-79, Rev. 0  
Page 6-80, Rev. 0  
Page 6-81, Rev. 2  
Page 6-81a, Rev. 2  
Page 6-82, Rev. 0  
Page 6-83, Rev. 1  
Page 6-84, Rev. 1  
Page 6-85, Rev. 4  
Page 6-86, Rev. 1  
Page 6-87, Rev. 4  
Page 6-88, Rev. 4

Relief Requests (continued):

Page 6-89, Rev. 4  
Page 6-90, Rev. 1  
Page 6-91, Rev. 1  
Page 6-92, Rev. 5  
Page 6-93, Rev. 5  
Page 6-94, Rev. 5  
Page 6-95, Rev. 3  
Page 6-96, Rev. 4  
Page 6-97, Rev. 4  
Page 6-98, Rev. 4

Line Designation List:

Page 7-1, Rev. 5  
Page 7-2, Rev. 1  
Page 7-3, Rev. 1  
Page 7-4, Rev. 1  
Page 7-5, Rev. 1  
Page 7-6, Rev. 1  
Page 7-7, Rev. 1  
Page 7-8, Rev. 1  
Page 7-9, Rev. 0  
Page 7-10, Rev. 0  
Page 7-11, Rev. 0  
Page 7-12, Rev. 0  
Page 7-13, Rev. 0  
Page 7-14, Rev. 0  
Page 7-15, Rev. 0  
Page 7-16, Rev. 0  
Page 7-17, Rev. 0  
Page 7-18, Rev. 0  
Page 7-19, Rev. 0  
Page 7-20, Rev. 0  
Page 7-21, Rev. 0  
Page 7-22, Rev. 0  
Page 7-23, Rev. 0  
Page 7-24, Rev. 0  
Page 7-25, Rev. 0  
Page 7-26, Rev. 0  
Page 7-27, Rev. 0  
Page 7-28, Rev. 0  
Page 7-29, Rev. 0  
Page 7-30, Rev. 0  
Page 7-31, Rev. 0  
Page 7-32, Rev. 0  
Page 7-33, Rev. 0  
Page 7-34, Rev. 0  
Page 7-35, Rev. 0  
Page 7-36, Rev. 1  
Page 7-37, Rev. 0  
Page 7-38, Rev. 1  
Page 7-39, Rev. 0  
Page 7-40, Rev. 0  
Page 7-41, Rev. 0  
Page 7-42, Rev. 0



Line Designation List (continued):

Page 7-43, Rev. 0  
Page 7-44, Rev. 0  
Page 7-45, Rev. 0  
Page 7-46, Rev. 0  
Page 7-47, Rev. 0  
Page 7-48, Rev. 0  
Page 7-49, Rev. 1  
Page 7-50, Rev. 0  
Page 7-51, Rev. 1  
Page 7-52, Rev. 0  
Page 7-53, Rev. 0  
Page 7-54, Rev. 0  
Page 7-55, Rev. 0  
Page 7-56, Rev. 0  
Page 7-57, Rev. 0  
Page 7-58, Rev. 0  
Page 7-59, Rev. 0  
Page 7-60, Rev. 0  
Page 7-61, Rev. 0  
Page 7-62, Rev. 0  
Page 7-63, Rev. 0  
Page 7-64, Rev. 0  
Page 7-65, Rev. 0  
Page 7-66, Rev. 0  
Page 7-67, Rev. 0  
Page 7-68, Rev. 0  
Page 7-69, Rev. 0  
Page 7-70, Rev. 0  
Page 7-71, Rev. 0  
Page 7-72, Rev. 0  
Page 7-73, Rev. 0  
Page 7-74, Rev. 0  
Page 7-75, Rev. 0  
Page 7-76, Rev. 0  
Page 7-77, Rev. 0  
Page 7-78, Rev. 0  
Page 7-79, Rev. 0  
Page 7-80, Rev. 0  
Page 7-81, Rev. 0  
Page 7-82, Rev. 0  
Page 7-83, Rev. 0  
Page 7-84, Rev. 0  
Page 7-85, Rev. 0  
Page 7-86, Rev. 0  
Page 7-87, Rev. 0  
Page 7-88, Rev. 0  
Page 7-89, Rev. 0  
Page 7-90, Rev. 0  
Page 7-91, Rev. 0  
Page 7-92, Rev. 0  
Page 7-93, Rev. 0  
Page 7-94, Rev. 0  
Page 7-95, Rev. 0

Line Designation List (continued):

Page 7-96, Rev. 0  
Page 7-97, Rev. 0  
Page 7-98, Rev. 0  
Page 7-99, Rev. 0  
Page 7-100, Rev. 0  
Page 7-101, Rev. 1  
Page 7-102, Rev. 0  
Page 7-103, Rev. 0  
Page 7-104, Rev. 0  
Page 7-105, Rev. 0  
Page 7-106, Rev. 1  
Page 7-107, Rev. 0  
Page 7-108, Rev. 0  
Page 7-109, Rev. 0  
Page 7-110, Rev. 0  
Page 7-111, Rev. 1  
Page 7-112, Rev. 0  
Page 7-113, Rev. 0  
Page 7-114, Rev. 0  
Page 7-115, Rev. 0  
Page 7-116, Rev. 0  
Page 7-117, Rev. 0  
Page 7-118, Rev. 0

Equipment Designation List:

Page 8-1, Rev. 5  
Page 8-2, Rev. 0  
Page 8-3, Rev. 0  
Page 8-4, Rev. 0  
Page 8-5, Rev. 0  
Page 8-6, Rev. 0  
Page 8-7, Rev. 0  
Page 8-8, Rev. 0  
Page 8-9, Rev. 0  
Page 8-10, Rev. 0  
Page 8-11, Rev. 0  
Page 8-12, Rev. 0  
Page 8-13, Rev. 0  
Page 8-14, Rev. 0  
Page 8-15, Rev. 0  
Page 8-16, Rev. 0  
Page 8-17, Rev. 0  
Page 8-18, Rev. 0  
Page 8-19, Rev. 0  
Page 8-20, Rev. 0  
Page 8-21, Rev. 0  
Page 8-22, Rev. 0  
Page 8-23, Rev. 0  
Page 8-24, Rev. 0  
Page 8-25, Rev. 0  
Page 8-26, Rev. 0

## 1.0 INTRODUCTION

### 1.1 General

This document details the scope of inservice inspections for the Vogtle Electric Generating Plant (VEGP) Unit 1 and includes the following points of interests:

- Frequency of inspections.
- Line Designation List.
- Equipment Designation List.
- Identification of all areas to be examined.
- Relief Requests.

The contents of this document are subject to change (with approval) during the course of inservice inspections.

The American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 1983 Edition through Summer 1983 Addenda is currently used for inservice inspection (ISI). The actual edition applicable to ISI is the latest edition approved by the Nuclear Regulatory Commission 12 months prior to the date of issuance of the operating license per 10 CFR 50.55a. Additionally, inspection program B will be used as defined by IWA-2400 of Section XI.

### 1.2 Scope

This document is a description of the Inservice Inspection Program for Class 1, 2, and 3 components.

### 1.3 Component Upgrading

All plant components have been reviewed to determine the appropriate classification for inservice inspection. The classification information is given in the Line Designation List and Equipment Designation List. It must be noted, however, that the classification of components as ISI Class 1, 2, or 3 for inservice inspection does not imply that the components were designed or constructed in accordance with the same ASME classification requirements. The component design codes remain as stated in the VEGP Final Safety Analysis Report (FSAR).

### 1.4 Responsibility

Georgia Power Company bears the overall responsibility for the performance of the inservice inspections. Certain nondestructive

B-A, PRESSURE RETAINING WELDS IN REACTOR VESSEL

Item No.	Parts Examined	Examination Requirements/ Figure No.	Examination Method	Extent and Frequency of Examination		Relief Request	Comments
				1st Interval	2nd, 3rd, 4th Intervals		
B1.10	Shell Welds						
B1.11	Circumferential	IWB-2500-1	UT	All Welds <sup>2</sup>	One beltline region weld <sup>2, 3</sup>	RR-2, 39	
B1.12	Longitudinal	IWB-2500-2	UT	All Welds <sup>2</sup>	One beltline region weld <sup>2, 3</sup>	RR-3, 39	
B1.20	Head Welds						
B1.21	Circumferential	IWB-2500-3	UT	Accessible <sup>2</sup> length of all welds	Accessible length of one weld <sup>1</sup>	RR-5, 7, 39	
B1.22	Meridional	IWB-2500-3	UT	Accessible <sup>2</sup> length of all welds	Accessible Length of one weld <sup>1</sup>	RR-4, 39	
B1.30	Shell-to-Flange Weld	IWB-2500-4	UT	Weld <sup>2, 5, 6</sup>	Weld <sup>2, 5, 6</sup>	RR-39	
B1.40	Head-to-Flange weld	IWB-2500-5	UT, MT	Weld <sup>2, 5</sup>	Weld <sup>2, 5</sup>	RR-7	
B1.50	Repair Welds <sup>1</sup>						
B1.51	Beltline Region	IWB-2500-1, and -2	N/A	N/A	N/A		N/A to VEGP.

NOTES:

- (1) Material (base metal) weld repairs where repair depth exceeds 10% nominal of the vessel wall. Beltline region extends for the length of the vessel thermal shield, or in the absence of a thermal shield, the effective length of reactor fuel element. If the location of the repair is not positively and accurately known, then the individual shell plate, forging, or shell course containing the repair shall be included.
- (2) Includes essentially 100% of the weld length.
- (3) Select weld located at a design structural discontinuity, if any.
- (4) The initially selected welds are to be reexamined during successive inspection intervals.
- (5) If partial examinations are conducted from flange face, the remaining volumetric examinations required to be conducted from vessel wall may be performed at or near the end of each inspection interval.
- (6) The examination of shell-to-flange welds may be performed during the first and third inspection periods in conjunction with the nozzle examinations of Exam. Cat. B-D (Program B). At least 50% of shell-to-flange welds shall be examined by the end of the first inspection period, and the remainder by the end of the third inspection period.

C-B, CONTINUED

Item No.	Parts Examined	Examination Requirements/ Figure No.	Examination Method	Extent and Frequency of Examination		Relief Request	Comments
				1st Interval	2nd, 3rd, 4th Intervals		
C2.31	Reinforcing Plate Welds to Nozzle and Vessel	IWC-2500-4(c)	PT/MT	All nozzles at terminal ends <sup>1</sup> of piping runs <sup>2</sup>	Same as for 1st interval <sup>3</sup>		
C2.32	Nozzle-to-shell (or head) welds when inside of vessel is accessible	IWC-2500-4(c)	UT	All Nozzles at terminal ends <sup>1</sup> of piping runs <sup>2</sup>	Same as for 1st interval <sup>3</sup>		
C2.33	Nozzle-to-shell (or Head) When Inside of Vessel is inaccessible	Note 5	VT-2	All Nozzles at terminal end <sup>1</sup> of piping runs <sup>2</sup>	Same as for 1st interval <sup>3</sup>	Inspection performed each period.	

NOTES:

- (1) Includes nozzles welded to or integrally cast in vessels that connect to piping runs (manways and handholes are excluded).
- (2) Includes only those piping runs selected for examination under Examination Category C-F.
- (3) The nozzles selected initially for examination shall be reexamined over the service lifetime of the component.
- (4) In the case of multiple vessels of similar design, size, and service (such as steam generators, heat exchangers), the required examinations may be limited to one vessel or distributed among the vessels.
- (5) The telltale hole in reinforcing plate shall be examined for evidence of leakage while vessel is undergoing the system pressure test (IWC-5221 or IWC-5222) as required by Examination Category C-E.

C-D, PRESSURE RETAINING BOLTING, GREATER THAN 2 INCHES IN DIAMETER

Item No.	Parts Examined	Examination Requirements/ Figure No.	Examination Method	Extent and Frequency of Examination		Relief Request	Comments
				1st Interval	2nd, . . . 4th Intervals		
	<u>Pressure Vessels</u>						
C4.10	Bolts and Studs	IWC-2500-6	N/A	N/A	N/A		N/A to VEGP.
	<u>Piping</u>						
C4.20	Bolts and Studs	IWC-2500-6	N/A	N/A	N/A		N/A to VEGP.
	<u>Pumps</u>						
C4.30	Bolts and Studs	IWC-2500-6	UT	100% of the bolts and studs at each bolted connection required to be inspected	Same as 1st interval 1 2 3		
	<u>Valves</u>						
C4.40	Bolts and Studs	IWC-2500-6	N/A	N/A	N/A		N/A to VEGP.

NOTES:

- (1) The examination may be performed on bolting in place under load or upon disassembly of the connection.
- (2) The examination of bolting of vessels, pumps, and valves may be conducted on one vessel, one pump, one valve among a group of vessels, pumps, and valves in each system required to be examined and which are similar in design, size, function, and service. In addition, where the one component to be examined contains a group of bolted connections of similar design and size (such as flange connections, manway covers), the examination may be conducted on one bolted connection among the group.
- (3) The examination of flange bolting in piping systems required to be examined may be limited to the flange connections in pipe runs selected for examination under Examination Category C-F.
- (4) The areas selected for the initial examination shall be reexamined over the service lifetime of the component.



D-A, SYSTEMS IN SUPPORT OF REACTOR SHUTDOWN FUNCTION

Item No.	Parts Examined	Test And Examination Requirements	Examination Method	Extent and Frequency of Examination		Relief Request	Comments
				Each Period	Each Interval		
D1.10	Pressure Retaining Components <sup>1</sup>	IWA-5000 <sup>5</sup> IWD-5221	VT-2	Pressure re- taining & boundary		RR-49,50	1
		IWA-5000 <sup>5</sup> IWD-5223	VT-2		Pressure retaining & boundary	RR-49	
D1.20	Integral Attachment- Component Supports and Restraints <sup>3</sup>	Figure IWD-2500-1	VT-3		Integral attachments		
D1.30	Integral Attachment- Mechanical and Hydraulic Snubbers <sup>3</sup>	Figure IWD-2500-1	VT-3		Integral attachments		
D1.40	Integral Attachment- Spring Type Supports <sup>3</sup>	Figure IWD-2500-1	VT-3		Integral attachments		
D1.50	Integral Attachment- Constant Load Type Supports <sup>3</sup>	Figure IWD-2500-1	VT-3		Integral attachment		
D1.60	Integral Attachment- Shock Absorbers <sup>3</sup>	Figure IWD-2500-1	VT-3		Integral attachment		

NOTES:

- (1) The system boundary extends up to and including the first normally closed valve or valve capable of automatic closure as required to perform the safety-related system function.
- (2) The system hydrostatic test shall be conducted at or near the end of each inspection interval or during the same inspection period of each inspection interval for Inspection Program B.
- (3) In the case of multiple components within a system of similar design, function, and service, the integral attachment of only one of the multiple components shall be examined. The integral attachments selected for examination shall correspond to those component supports selected by IWF-2510(b).
- (4) There are no exemptions or exclusions from these requirements except as specified in IWA-5214(c).
- (5) A system hydrostatic test (IWD-5223) and accompanying VT-2 examination are acceptable in lieu of the system pressure test (IWD-5221) and VT-2 examination.

D-B, SYSTEMS IN SUPPORT OF EMERGENCY CORE COOLING, CONTAINMENT HEAT REMOVAL,  
ATMOSPHERE CLEANUP, AND REACTOR RESIDUAL HEAT REMOVAL

Item No.	Parts Examined	Test And Examination Requirements	Examination Method	Extent and Frequency of Examination		Relief Request	Comments
				Each Period	Each Interval		
D2.10	Pressure Retaining Components <sup>1</sup>	IWA-5000 <sup>4</sup> IWD-5222 <sup>5</sup>	VT-2	Pressure re- taining boundary <sup>4</sup>		RR-50	
		IWA-5000 <sup>4</sup> IWD-5223 <sup>5</sup>	VT-2		Pressure re- taining <sup>2</sup> 4 boundary		
D2.20	Integral Attachment- Component Supports and Restraints <sup>3</sup>	Figure IWD-2500-1	VT-3		Integral attachment		
D2.30	Integral Attachment- Mechanical and Hydraulic Snubbers <sup>3</sup>	Figure IWD-2500-1	VT-3		Integral attachment		
D2.40	Integral Attachment- Spring Type Supports <sup>3</sup>	Figure IWD-2500-1	VT-3		Integral attachment		
D2.50	Integral Attachment- Constant Load Type Supports <sup>3</sup>	Figure IWD-2500-1	VT-3		Integral attachment		
D2.60	Integral Attachment- Shock Absorbers <sup>3</sup>	Figure IWD-2500-1	VT-3		Integral attachment		

NOTES:

- (1) The system boundary extends up to and including the first normally closed valve or valve capable of automatic closure as required to perform the safety-related system function.
- (2) The system hydrostatic test shall be conducted at or near the end of each inspection interval or during the same inspection period of each inspection interval for Inspection Program B.
- (3) In the case of multiple components within a system of similar design, function, and service, the integral attachment of only one of the multiple components shall be examined. The integral attachments selected for examination shall correspond to those component supports selected by IWF-2510(b).
- (4) There are no exemptions or exclusions from these requirements except as specified in IWA-5214(c).
- (5) A system hydrostatic test (IWD-5223) and accompanying VT-2 examination are acceptable in lieu of the system pressure test (IWD-5222) and VT-2 examination.

D-C, SYSTEMS IN SUPPORT OF RESIDUAL HEAT REMOVAL FROM SPENT FUEL STORAGE POOL

Item No.	Parts Examined	Test And Examination Requirements	Examination Method	Extent and Frequency of Examination		Relief Request	Comments
				Each Period	Each Interval		
D3.10	Pressure Retaining Components	IWA-5000 <sub>4</sub> IWD-5221	VT-2	Pressure retaining <sub>4</sub> boundary		RR-50,53	1
		IWA-5000 <sub>4</sub> IWD-5223	VT-2		Pressure retaining <sub>4</sub> boundary	RR-53	
D3.20	Integral Attachment- Component Supports and Restraints	Figure IWD-2500-1	VT-3		Integral attachment		
D3.30	Integral Attachment- Mechanical and Hydraulic Snubbers <sub>3</sub>	Figure IWD-2500-1	VT-3		Integral attachment		
D3.40	Integral Attachment- Spring Type Supports	Figure IWD-2500-1	VT-3		Integral attachment		
D3.50	Integral Attachment- Constant Load <sub>3</sub> Type Supports	Figure IWD-2500-1	VT-3		Integral attachment		
D3.60	Integral Attachment- Shock Absorbers	Figure IWD-2500-1	VT-3		Integral attachment		

NOTES:

- (1) The system boundary extends up to and including the first normally closed valve or valve capable of automatic closure as required to perform the safety-related system function.
- (2) The system hydrostatic test shall be conducted at or near the end of each inspection interval or during the same inspection period of each inspection interval for Inspection Program B.
- (3) In the case of multiple components within a system of similar design, function, and service, the integral attachment of only one of the multiple components shall be examined. The integral attachments selected for examination shall correspond to those component supports selected by IWT-2510(b).
- (4) There are no exemptions or exclusions from these requirements except as specified in IWA-5214(c).
- (5) A system hydrostatic test (IWD-5223) and accompanying VT-2 examination are acceptable in lieu of the system pressure test (IWD-5221) and VT-2 examination.

## 6.0 RELIEF REQUESTS

### 6.1 Scope

The following relief requests have been prepared from information determined during the preservice inspection of VEGP Unit 1.

<u>Relief Request No.</u>	<u>Examination Area</u>
RR-1	Relief request withdrawn
RR-2	Mechanized exam of reactor vessel lower shell-to-bottom head weld
RR-3	Mechanized exam of reactor vessel lower shell longitudinal welds
RR-4	Mechanized exam of reactor vessel meridional welds
RR-5	Mechanized exam of reactor vessel bottom head circumferential welds
RR-6	Volumetric exam of reactor vessel flange ligament areas
RR-7	Volumetric exam of reactor vessel closure head welds
RR-8	Mechanized exam of elbow-to-reactor vessel safe-end welds
RR-9	Class 1 bolting, greater than 2-in. diameter
RR-10	Pressurizer integrally welded attachments
RR-11	Visual exam of reactor vessel supports
RR-12	Volumetric exam of pressurizer welds
RR-13	Relief request withdrawn
RR-14	Volumetric exam of pressurizer surge-nozzle-to-vessel weld
RR-15	Volumetric exam of pressurizer surge-nozzle inner radius

Relief Request No.Examination Area

RR-49	System pressure test on Class 3 vertical pit type pumps
RR-50	System pressure test on Class 3 components
RR-51	Relief request withdrawn
RR-52	Reactor Vessel integrally welded attachments
RR-53	Class 3 hydrostatic test on Spent Fuel Cooling and Purification
RR-54	Relief request withdrawn conditionally
RR-55	Intentionally blank
RR-56	Intentionally blank

VEGP-1

RR-1

RELIEF REQUEST WITHDRAWN



VEGP-1

RR-17  
Attachment 1

<u>Component ID</u>	<u>Code Category</u>	<u>Description</u>	<u>Percentage Examined</u>	<u>Restriction</u>	
11201-001-5	B-J	31" Elbow to Steam Generator Nozzle	50%	100% Exam from elbow side 0% from nozzle side due to nozzle geometry.	I
11201-002-5	B-J	31" Elbow to Steam Generator Nozzle	50%	100% Exam from elbow side 0% from nozzle side due to nozzle geometry.	I
11201-003-5	B-J	31" Elbow to Steam Generator Nozzle	50%	100% Exam from elbow side 0% from nozzle side due to nozzle geometry.	I
11201-004-6	B-J	31" Elbow to Steam Generator Nozzle	50%	100% Exam from elbow side 0% from nozzle side due to nozzle geometry.	I
11201-005-1	B-J	31" Steam Generator Nozzle to Elbow	50%	100% Exam from elbow side 0% from nozzle side due to nozzle geometry.	
11201-006-1	B-J	31" Steam Generator Nozzle to Elbow	50%	100% Exam from elbow side 0% from nozzle side due to nozzle geometry.	
11201-007-1	B-J	31" Steam Generator Nozzle to Elbow	50%	100% Exam from elbow side 0% from nozzle side due to nozzle geometry.	
11201-008-1	B-J	31" Steam Generator Nozzle to Elbow	50%	100% Exam from elbow side 0% from nozzle side due to nozzle geometry.	

Component or Relief Area

Volumetric examination of pressure retaining branch pipe connection welds for nominal pipe size 4-inches and greater in Class 1 systems. Affected welds are listed in Attachment 1.

Requirement from which Relief is Requested

Item No. B9.31, Category B-J, Table IWB-2500-1 of ASME Section XI requires a surface and volumetric examination to be performed on branch pipe connection welds. The examination areas are shown in Figures IWB-2500-9, -10 and -11.

Basis for Relief

Examination of branch connection welds is typically difficult due to the configuration of the branch connection fitting and the weld design. For branch connection welds in the VEGP main loop piping, these problems exist in addition to the problems of examining cast stainless steel pipe material.

Two basic weld configurations are used for the branch connection designs on the main loop piping. The 4-inch branch connections were installed using a "set-on" weld design, while the 6-, 10-, 12-, and 16-inch branch connections were installed using a "set-in" design. (See Attachment 2 for configuration.)

Typically, examination coverage of branch connection welds can be obtained by scanning from the main run of pipe using a 45 degree shear wave technique. In this case, due to the cast stainless steel material used in the main loop piping, the examination is limited to a 1/2 node examination using a 45 degree refracted longitudinal (RL) wave technique developed for this piping material.

Examination of the 4-inch branch connection welds from the main run of piping using the 1/2 node RL wave is not possible due to the geometry of the "set-on" configuration. However, partial coverage of the 6-, 10-, 12-, and 16-inch branch connection welds from the main run using the 1/2 node RL technique is possible because of the "set-in" configuration. Approximately 40 percent of the Code-required volume (one beam direction only) for the 6-, 12-, and 16-inch branch connection welds can be examined using this technique. Approximately 100 percent of the Code-required volume can be examined on the 10-inch branch connection welds from the pipe side by scanning across the weld (one beam direction only) using the 1/2 node RL technique.

To increase examination coverage and provide a two-directional examination, scanning from the branch connection side will also be used where possible. The forged stainless steel material used in all but the 10-inch branch connections allows the use of shear wave ultrasonic techniques, however the geometry of the fittings still presents problems in obtaining Code-required examination coverage.

#### Alternate Examination

Based on plots and calculations, it was determined that the only feasible examination from the branch connection side would be a refracted shear wave technique from the taper of the fitting. This technique relies on the ability of the shear wave to reflect off of the inner wall of the fitting bore. Calibration blocks were built with a 10% notch for sensitivity and 3/16 inch side drilled holes for establishing a DAC curve. Use of this technique should result in approximately 85 percent of the Code-required volume being examined on the 4-inch branch connections and approximately 50 percent of the Code-required volume in one direction for the 6-, 12-, and 16 inch branch connections.

The fitting side of the 10-inch branch connection is cast stainless steel which precludes the use of a shear wave technique. Also, due to the geometry of the part, examination from the branch connection side using the 1/2 node RL technique is not feasible.

Attachment 1 lists each weld for which relief is requested and delineates the expected coverage using the techniques discussed above in conjunction with the applicable calibration block. The Code-required surface examination will be performed.

VEGP-1  
RR-27  
Attachment 1

<u>Identification No.</u>	<u>Code Category</u>	<u>Description</u>	<u>Calibration Block</u>	<u>ISI Limitations</u>
11201-001-2	B-J	12" Branch Connection	353A	40% Exam from pipe side, 50% Exam from branch side (Note 1)
11201-002-2	B-J	6" Branch Connection	350A	40% Exam from pipe side, 50% Exam from branch side (Note 1)
11201-003-2	B-J	6" Branch Connection	350A	40% Exam from pipe side, 50% Exam from branch side (Note 1)
11201-004-2	B-J	16" Branch Connection	352A	40% Exam from pipe side, 50% Exam from branch side (Note 1)
11201-004-3	B-J	12" Branch Connection	353A	40% Exam from pipe side, 50% Exam from branch side (Note 1)
11201-009-4	B-J	4" Branch Connection	351A	0% Exam from pipe side, 85% Exam from branch connection taper
11201-009-6	B-J	10" Branch Connection	331A	100% Exam from pipe side, 0% Exam from branch side
11201-010-4	B-J	10" Branch Connection	331A	100% Exam from pipe side, 0% Exam from branch side
11201-011-5	B-J	10" Branch Connection	331A	100% Exam from pipe side, 0% Exam from branch side
11201-012-4	B-J	4" Branch Connection	351A	0% Exam from pipe side, 85% Exam from branch connection taper
11201-012-6	B-J	10" Branch Connection	331A	100% Exam from pipe side, 0% Exam from branch side

Note 1: Examination unidirectional

VEGP-1  
RR-24  
Attachment 1

<u>Identification No.</u>	<u>Code Category</u>	<u>Description</u>	<u>Percentage Examined</u>	<u>Restriction</u>
11201-006-8	B-J	31" Elbow to Reactor Coolant Pump Nozzle	90%	100% Exam from elbow side 80% Exam from nozzle side
11201-007-8	B-J	31" Elbow to Reactor Coolant Pump Nozzle	90%	100% Exam from elbow side 80% Exam from nozzle side
11201-008-8	B-J	31" Elbow to Reactor Coolant Pump Nozzle	90%	100% Exam from elbow side 80% Exam from nozzle side
11201-010-1	B-J	27.5" Reactor Coolant Pump Nozzle to Pump	75%	100% Exam from pipe side 50% Exam from nozzle side
11201-011-1	B-J	27.5" Reactor Coolant Pump Nozzle to Pump	75%	100% Exam from pipe side 50% Exam from nozzle side
11201-012-1	B-J	27.5" Reactor Coolant Pump Nozzle to Pipe	75%	100% Exam from pipe side 50% Exam from nozzle side

Component or Relief Area

Volumetric examination of pressure-retaining circumferential welds in 10-inch diameter Safety Injection piping made of SA-376 and SA-312 grade material. Affected welds and any limitations are listed in Attachment 1.

Requirements from which Relief is Requested

Item No. B9.11, Category B-J, Table IWB-2500-1 and Item No. C5.21, Category C-F, Table IVC-2500-1 of ASME Section XI require a surface and volumetric examination of circumferential piping welds. The required examination volume is shown in Figure IWB-2500-8(b) and IVC-2500-7(b). Article III-4420 requires that the examinations shall be performed using a sufficiently long examination beam path to provide coverage of the required examination volume in two beam-path directions. The examination shall be performed from two sides of the weld, where practicable, or from one side of the weld as a minimum. Article III-4430 requires that the angle beam examination for reflectors transverse to the weld shall be performed on the weld crown on a single scan path to examine the weld root by one-half v-path in two directions along the weld. Article III-2430 requires that manual scanning shall be done at twice (+6dB) the primary reference at a minimum. A meaningful ultrasonic examination could not be accomplished on the SA-376 and SA-312 material using conventional shear-wave techniques. Since a 1/2 node examination using a refracted 45 degree longitudinal wave was found to be the superior technique, relief is requested from the above requirements.

Basis for Relief

Physical limitations exist due to the geometric configuration of some joints. Additionally, the SA-376 and SA-312 material exhibits severe angular variations and significant attenuation problems during a typical shear-wave ultrasonic examination. This was determined to be caused by a severely banded microstructure. However, a refracted-longitudinal wave, which is a 1/2-node examination technique, was found to be the best technique during PSI. During calibration for the refracted L-wave examination, the primary reference level will be set using side-drilled holes. Scanning was possible only at the primary reference level due to the excessive noise associated with the metallurgical structure of the material. On pipe to valve configurations, the weld was examined on the pipe side using the half-node technique. Scanning from the valve side was not possible due to valve geometry. On pipe to tee configurations, the weld was examined on the pipe side using the half-node technique. Only partial scanning from the tee was possible due to geometry.

Alternate Examination

The Code-required surface examination will be performed. A refracted longitudinal wave examination, as described in the "Basis for Relief", will be performed to the extent practical as listed in Attachment 1.



THIS PAGE INTENTIONALLY LEFT BLANK

VEGP-1 RR-26  
Attachment 1

<u>Identification No.</u>	<u>Code Category</u>	<u>Material</u>	<u>Description</u>	<u>Percentage Examined During PSI</u>	<u>Restriction</u>
11204-124-1	B-J	SA-376	10" Valve to Pipe	50%	Geometry of Valve
11204-124-2	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-124-3	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-124-4	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-124-5	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-124-6	B-J	SA-376	10" Pipe to Pipe	100%	N/A
11204-124-7	B-J	SA-376	10" Pipe to Valve	50%	Geometry of Valve
11204-124-8	B-J	SA-376	10" Valve to Pipe	50%	Geometry of Valve
11204-124-9	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-124-10	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-124-11	B-J	SA-376	10" Pipe to Tee	88%	Geometry of Tee
11204-124-12	B-J	SA-376	10" Tee to Pipe	88%	Geometry of Tee
11204-124-13	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-124-14	B-J	SA-376	10" Elbow to Pipe	100%	N/A

VEGP-1 RR-26  
Attachment 1 (Cont'd)

<u>Identification No.</u>	<u>Code Category</u>	<u>Material</u>	<u>Description</u>	<u>Percentage Examined During PSI</u>	<u>Restriction</u>
11204-124-15	B-J	SA-376	10" Pipe to Valve	50%	Geometry of Valve
11204-124-16	B-J	SA-376	10" Valve to pipe	50%	Geometry of Valve
11204-124-17	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-124-18	B-J	SA-376	10" Elbow to Branch Connection	100%	N/A
11204-125-1	B-J	SA-376	10" Valve to Pipe	50%	Geometry of Valve
11204-125-2	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-125-3	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-125-4	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-125-5	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-125-6	B-J	SA-376	10" Pipe to Pipe	100%	N/A
11204-125-7	B-J	SA-376	10" Pipe to Valve	50%	Geometry of Valve
11204-125-8	B-J	SA-376	10" Valve to Pipe	50%	Geometry of Valve
11204-125-9	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-125-10	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-125-11	B-J	SA-376	10" Pipe to Tee	100%	N/A

VEGP-1 RR-26  
Attachment 1 (Cont'd)

<u>Identification No.</u>	<u>Code Category</u>	<u>Material</u>	<u>Description</u>	<u>Percentage Examined During PSI</u>	<u>Restriction</u>
11204-125-12	B-J	SA-376	10" Tee to Pipe	100%	N/A
11204-125-13	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-125-14	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-125-15	B-J	SA-376	10" Pipe to Valve	50%	Geometry of Valve
11204-125-16	B-J	SA-376	10" Valve to Pipe	50%	Geometry of Valve
11204-125-17	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-125-18	B-J	SA-376	10" Elbow to Branch Connection	100%	N/A
11204-126-1	B-J	SA-376	10" Valve to Pipe	50%	Geometry of Valve
11204-126-2	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-126-3	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-126-4	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-126-5	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-126-6	B-J	SA-376	10" Pipe to Pipe	100%	N/A
11204-126-7	B-J	SA-376	10" Pipe to Valve	50%	Geometry of Valve

VEGP-1 RR-26  
Attachment 1 (Cont'd)

<u>Identification No.</u>	<u>Code Category</u>	<u>Material</u>	<u>Description</u>	<u>Percentage Examined During PSI</u>	<u>Restriction</u>
11204-126-8	B-J	SA-376	10" Valve to Pipe	50%	Geometry of Valve
11204-126-9	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-126-10	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-126-11	B-J	SA-376	10" Pipe to Tee	100%	N/A
11204-126-12	B-J	SA-376	10" Tee to Pipe	100%	N/A
11204-126-13	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-126-14	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-126-15	B-J	SA-376	10" Pipe to Valve	50%	Geometry of Valve
11204-126-16	B-J	SA-376	10" Valve to Pipe	50%	Geometry of Valve
11204-126-17	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-126-18	B-J	SA-376	10" Elbow to Branch Connection	100%	N/A
11204-127-1	B-J	SA-376	10" Valve to Pipe	50%	Geometry of Valve
11204-127-2	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-127-3	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-127-4	B-J	SA-376	10" Pipe to Elbow	100%	N/A

VEGP-1 RR-26  
Attachment 1 (Cont'd)

<u>Identification No.</u>	<u>Code Category</u>	<u>Material</u>	<u>Description</u>	<u>Percentage Examined During PSI</u>	<u>Restriction</u>
11204-127-5	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-127-6	B-J	SA-376	10" Pipe to Pipe	100%	N/A
11204-127-7	B-J	SA-376	10" Pipe to Valve	50%	Geometry of Valve
11204-127-8	B-J	SA-376	10" Valve to Pipe	50%	Geometry of Valve
11204-127-9	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-127-10	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-127-11	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-127-12	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-127-13	B-J	SA-376	10" Pipe to Tee	100%	N/A
11204-127-14	B-J	SA-376	10" Tee to Pipe	100%	N/A
11204-127-15	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-127-16	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-127-17	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-127-18	B-J	SA-376	10" Elbow to Pipe	100%	N/A
11204-127-19	B-J	SA-376	10" Pipe to Valve	50%	Geometry of Valve



VEGP-1 RR-26  
Attachment 1 (Cont'd)

<u>Identification No.</u>	<u>Code Category</u>	<u>Material</u>	<u>Description</u>	<u>Percentage Examined During PSI</u>	<u>Restriction</u>
11204-127-20	B-J	SA-376	10" Valve to Pipe	50%	Geometry of Valve
11204-127-21	B-J	SA-376	10" Pipe to Elbow	100%	N/A
11204-127-22	B-J	SA-376	10" Elbow to Branch Connection	100%	N/A
11204-120-6	C-F	SA-312	10" Pipe to Valve	50%	Geometry of Valve
11204-121-6	C-F	SA-312	10" Pipe to Valve	50%	Geometry of Valve
11204-122-6	C-F	SA-312	10" Pipe to Valve	50%	Geometry of Valve
11204-123-6	C-F	SA-312	10" Pipe to Valve	50%	Geometry of Valve

Component or Relief Area

Use of piping calibration blocks to perform ultrasonic examination of austenitic welds in thin-walled vessels (nominal wall thickness 2 inches and less). The following vessels are affected:

RHR heat exchanger 11205-E6-002  
Letdown heat exchanger 11208-E6-003  
Letdown reheat heat exchanger 11208-E6-007  
Excess letdown heat exchanger 11208-E6-002  
Regenerative heat exchanger 11208-E6-001  
Suction dampener 11208-V4-001  
Discharge Pulsation Dampener 11208-V4-002

Requirement from which Relief is Requested

Paragraph IWA-2232, ASME Section XI allows the use of the applicable requirements of Article 5 of ASME Section V for the ultrasonic examination of Class 1 and 2 vessel welds in material other than ferritic steel. However, Article 5 does not provide specific guidance on how to perform these examinations. Relief is requested for modification of these requirements to allow the use of Section XI, Appendix III and to evaluate any non-geometric reflectors to the requirements of IWB-3514. (See RR-30)

Basis for Relief

Article 5 of ASME Section V does not give complete guidance for performing ultrasonic examination of austenitic welds. However, paragraph T-548 does give permission to modify or supplement the provisions of this article. Therefore, the ultrasonic examination of austenitic vessel welds are performed in accordance with Appendix III of ASME Section XI, and the calibration blocks were designed in accordance with Fig. T-547.1 (provision for 10% T notch depth) and Fig. T-546.1 (provision for side-drilled holes).

In addition, paragraph T-543.3.1 allows the use of a flat basic calibration block where the examination surface is greater than 20 inches in diameter. Paragraph T-543.3.2 allows the use of a single curved basic calibration block on examination surfaces in the range of curvature from 0.9 to 1.5 times the basic calibration block diameter.

Alternate Examination

Calibration blocks, designed in accordance with figures T-547.1 and T-546.1 of ASME Section V and containing 10% T notch depths and side-drilled holes, will be utilized to perform ultrasonic examinations on the above listed thin-wall vessels. See Attachment 1 for specific details.

VEGP-1 RR-31  
Attachment I

<u>Identification No</u>	<u>Description</u>	<u>Calibration Block Used</u>	<u>Component</u>
11205-E6-002	RHR heat exchanger	ISI-D-412A Flat 0.75" SA-240 TP-304	43.75" OD X 0.9" wall SA-240 TP-304
11208-E6-003	Letdown heat exchanger	ISI-D-412A Flat 0.75" SA-240 TP-304	22" OD X 0.7" wall SA-240 TP-304
11208-E6-007	Letdown reheat heat exchanger	ISI-D-414A 8" OD X .322" SA-240 TP-304	8-5/8" OD X .22" - .32" wall SA-240 TP-304
11208-E6-002	Excess letdown heat exchanger	ISI-D-413A 8" OD X 0.719" SA-240 TP-304	8-5/8" OD X 0.75" wall SA-240 TP-304
11208-E6-001	Regenerative heat exchanger	ISI-D-413A 8" OD X 0.719" SA-240 TP-304	8" OD X 0.75" wall SA-240 TP-304
11208-V4-001	Suction dampener	ISI-D-342A 12" OD X 0.406" SA-312 TP-304	12-3/4" OD X 0.4" wall SA-312 TP-304
11208-V4-002	Discharge pulsation dampener	ISI-D-315A 14" OD X 1.406" SA-376 TP-316	20" OD X 1.35" wall SA-240 TP-304L

RR-36  
Attachment 1

<u>Identification No.</u>	<u>Description</u>	<u>Percentage Examined</u>	<u>Restriction</u>
11208-137-8	8" Pipe to Tee	94%	100% Exam from Pipe side - 88% Exam from Tee side
11208-137-15	8" Pipe to Valve	50%	100% Exam from Pipe side - 0% Exam from Valve side
11208-139-4	8" Tee to Pipe	94%	100% Exam from Pipe side - 89% Exam from Tee side
11208-139-8	6" Reducer to Pipe	93%	100% Exam from Pipe side - 87% Exam from Reducer side
11208-139-30	6" Pipe to Flange	50%	100% Exam from Pipe side - 0% Exam from Flange side
11208-139-35	8" Valve to Pipe	50%	100% Exam from Pipe side - 0% Exam from Valve side
11208-411-2	8" Pipe to Valve	50%	100% Exam from Pipe side - 0% Exam from Valve side
11208-411-51	8" Pipe to Tee	88%	100% Exam from Pipe side - 77% Exam from Tee side

VEGF-1

RR-51

RELIEF REQUEST WITHDRAWN

VEGP-1

RR-51  
Attachment 1

RELIEF REQUEST WITHDRAWN

Component or Relief Area

Surface examination of Integrally Welded Attachments on the Reactor Vessel Closure Head.

Examination ID No.    201-V6-001-W204  
                          201-V6-001-W205  
                          201-V6-001-W206

Requirement from which Relief is Requested

Item No. B8.10, Category B-H, Table IWB-2500-1 of ASME Section XI requires a surface examination of integrally welded attachments on the reactor vessel. Applicable examination area is shown in Figure IWB-2500-15.

Basis for Relief

Geometric configuration and location of the CRD support braces presents physical limitations that prevent complete coverage of the RPV Closure Head lifting lugs required for the surface examination.

Alternate Examination

Due to the physical limitations discussed above, approximately 75% of the weld length of the RPV Closure Head lifting lugs will be examined as during the Preservice Inspection.



## 7.0 LINE DESIGNATION LIST

### 7.1 Scope

The lines listed in the Line Designation List are within the scope of the ASME Code, Section XI. The examination method for each individual line also is designated. (Note: The Line Designation List contained in this document is for information only.)

### 7.2 Systems

The Line Designation List includes the following systems:

<u>System</u>	<u>System No.</u>
Reactor Coolant	1201
Nuclear Service Cooling Water	1202
Component Cooling Water	1203
Safety Injection	1204
Residual Heat Removal	1205
Containment Spray	1206
Chemical and Volume Control	1208
Nuclear Sampling-Liquid	1212
Spent Fuel Cooling and Purification	1213
Containment and Auxiliary Building Drains - Radioactive	1214
Auxiliary Component Cooling Water	1217
Radwaste Solidification Building Cooling Water	1222
Main Steam	1301
Auxiliary Feedwater	1302
Condensate and Feedwater	1305
Condensate Chemical Injection	1411
Plant Demineralized Water	1418
Containment Heat Removal	1501

## 8.0 EQUIPMENT DESIGNATION LIST

### 8.1 Scope

The equipment listed in the Equipment Designation List is within the scope of ASME, Section XI. The examination method for each piece of equipment also is designated. (Note: The Equipment Designation List contained in this document is for information only.)

### 8.2 System

The Equipment Designation List includes the following systems:

<u>System</u>	<u>System No.</u>
Reactor Coolant	1201
Nuclear Service Cooling Water	1202
Component Cooling Water	1203
Safety Injection	1204
Residual Heat Removal	1205
Containment Spray	1206
Chemical and Volume Control	1208
Spent Fuel Cooling and Purification	1213
Auxiliary Component Cooling Water	1217
Auxiliary Feedwater	1302
Containment Cooling Water	1501
Containment, Cavity, and Reactor Support Cooling	1511
Containment Heat Removal	1515
Control Building, Control Room Heating, Ventilation, and Air-Conditioning	1531
Control Building Safety Feature Electric Equipment Room HVAC	1532
Containment Building Cable Spreading Room HVAC	1539