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CURTIS,N.W. Pennsylvania Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
SCHWENCER,A. Licensing Branch 2

SUBJECT: Forwards Rev 1 to preservice insp plan & Rev 0 to preservice insp Relief Request 8 through 12,in connection w/SER Item 111. Encl

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Norman W. Curtis
Vice President-Engineering & Construction-Nuclear
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NOV 0 1 1983

Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
SER ITEM NO. 111
ER 100508 FILE 841-2
PLA-1934 Docket No. 50-388

Dear Mr. Schwencer:

Enclosed for your review and approval are the following items for the Preservice Inspection Report for Susquehanna SES Unit 2:

o Preservice Inspection Plan	Revision 1
o Relief Request #8	Revision 0
o Relief Request #9	Revision 0
o Relief Request #10	Revision 0
o Relief Request #11	Revision 0
o Relief Request #12	Revision 0

At the present time, the Preservice Inspection Program is approximately 95% complete. We anticipate that there will be no additional relief requests submitted, however existing relief requests may require revision to include some of the outstanding examinations. The completion of the remaining examinations should not alter the existing relief requests significantly and therefore should not delay your review.

If you have any questions or comments, please contact us.

Very truly yours,

N. W. Curtis
Vice President-Engineering & Construction-Nuclear

Enclosure

cc: R. L. Perch NRC

B001
1/1

SUSQUEHANNA STEAM ELECTRIC STATION
UNIT #2
PRESERVICE EXAMINATION (CLASS 1)

ITEM NO.	EXAMINATION CATEGORY (TABLE IWB - 2500)		COMPONENTS AND PARTS TO BE EXAMINED	METHOD	REMARKS[1]
			- REACTOR VESSEL -		
B1.1	B-A	Pressure-retaining welds in reactor vessel	Longitudinal and circumferential shell welds meridional and circumferential head welds vessel-to-flange and head-to-flange circumferential welds	Volumetric	(4) (5)
B1.4	B-D	Full penetration welds of nozzle in vessel	Primary nozzle-to-vessel welds and nozzle inside radiused section	Volumetric	(4) (12)
B1.5	B-E	Pressure-retaining partial penetration welds in vessels	Vessel penetration, including control rod drive and instrumentation penetration	Visual (IWA-5000)	(4)
B1.6	B-F	Pressure-retaining dissimilar metal welds	Nozzle-to-safe end welds	Volumetric and Surface	(4)
B1.7	B-G-1	Pressure-retaining bolting greater than 2" in diameter	Nuts	Surface	(4)
B1.8	B-G-1	Pressure-retaining bolting greater than 2" in diameter	Pressure-retaining bolts and studs	Volumetric and Surface	(4)
B1.9	B-G-1	Pressure-retaining bolting greater than 2" in diameter	Ligaments between threaded stud and holes	Volumetric	(4)
B1.10	B-G-1	Pressure-retaining bolting greater than 2" in diameter	Closure washers, bushings	Visual	(4)

SUSQUEHANNA STEAM ELECTRIC STATION
UNIT #2
PRESERVICE EXAMINATION (CLASS 1)
(Continued)

ITEM NO.		EXAMINATION CATEGORY (TABLE IWB - 2500)	COMPONENTS AND PARTS TO BE EXAMINED	METHOD	REMARKS[1]
B1.11	B-G-2	Pressure-retaining bolting smaller than or equal to 2" in diameter	Pressure-retaining bolting	Visual	(4)
B1.12	B-H	Vessel supports	Integrally welded vessel supports	Volumetric	(4)
B1.13	B-I-1	Interior clad surface of reactor vessel	Closure head cladding	1) Visual and Surface or 2) Volumetric	(4)
B1.14	B-I-1	Interior clad surface of reactor vessel	Vessel cladding	Visual	(4)
B1.15	B-N-1	Interior of reactor vessel	Vessel interior	Visual	(4)
B1.16	B-N-2	Integrally welded core support structures and interior attachments to reactor vessel	Interior attachments and core support structures	Visual	(4)
B1.18	B-O	Pressure-retaining welds in control rod drive housings	Control rod drive housings	Volumetric	(4)
B1.19	B-P	Components exempted from examination by IWB-1220	Exempted components	Visual (IWA-5000)	(4)
			-PIPING PRESSURE BOUNDARY-		
B4.1	B-F	Pressure-retaining dissimilar metal welds	Safe-end to piping welds and safe-end in branch piping welds	Volumetric and Surface	(1)

SUSQUEHANNA STEAM ELECTRIC STATION
UNIT #2
PRESERVICE EXAMINATION (CLASS 1)
(Continued)

ITEM NO.	EXAMINATION CATEGORY (TABLE IWB - 2500)		COMPONENTS AND PARTS TO BE EXAMINED	METHOD	REMARKS[1]
B6-150[2]	B-G-1	Pressure-retaining bolting greater than 2" in diameter	Pressure-retaining bolting, in place	Volumetric	(2)
B6-160[2]	B-G-1	Pressure-retaining bolting greater than 2" in diameter	Pressure-retaining bolting, when removed	Volumetric and Surface	(2)
B6.170[2]	B-G-1	Pressure-retaining bolting greater than 2" in diameter	Bolting surfaces	Visual (VT-1)	(2)
B7.50[2]	B-G-2	Pressure-retaining bolting, smaller than or equal to 2" in diameter	Bolts, studs, and nuts	Visual (VT-1)	(2)
B4.5	B-J	Pressure-retaining welds in piping	Circumferential and longitudinal piping welds	Volumetric	(1)(8)(9)(10)
B4.6	B-J	Pressure-retaining welds in piping	Branch pipe connection welds exceeding 6" in diameter	Volumetric	(1)(8)(9)(10)
B4.7	B-J	Pressure-retaining welds in piping	Branch pipe connection welds 6" diameter and smaller	Surface	
B4.8	B-J	Pressure-retaining welds in piping	Socket welds	Surface	
B10.10[2]	B-K-1	Support members for piping	Integrally welded attachments piping	Volumetric	(3)
B4.10	B-K-2	Support components for piping	Support components	Visual	
B4.11	B-P	Components exempted from examination by IWB-1220	Exempted components	Visual (IWA-5000)	

SUSQUEHANNA STEAM ELECTRIC STATION
UNIT #2
PRESERVICE EXAMINATION (CLASS 1)
(Continued)

ITEM NO.		EXAMINATION CATEGORY (TABLE IWB - 2500)	COMPONENTS AND PARTS TO BE EXAMINED	METHOD	REMARKS[1]
			- PUMP PRESSURE BOUNDARY -		
B6.180[2]	B-G-1	Pressure-retaining bolting greater than 2" in diameter	Pressure-retaining bolting, in place	Volumetric	(2)
B6.190[2]	B-G-1	Pressure-retaining bolting greater than 2" in diameter	Pressure-retaining bolting, when removed	Volumetric and Surface	(2)
B7.60[2]	B-G-2	Pressure-retaining bolting, smaller than or equal to 2" in diameter	Bolts, studs, and nuts	Visual (VT-1)	(2)
B10.20[2]	B-K-1	Support members for pumps	Integrally welded attachments-pumps	Surface	(3)
B5.5	B-K-2	Support components for pumps	Support components	Visual	
B5.7	B-L-2	Pump casings	Pump casings	Visual	(6)
B5.8	B-P	Components exempted from examination by IWB-1220	Exempted components	Visual (IWA-5000)	
			- VALVE PRESSURE BOUNDARY -		
B6.210[2]	B-G-1	Pressure-retaining bolting greater than 2" in diameter	Pressure-retaining bolts and studs, in place	Volumetric	(2)
B6.220[2]	B-G-1	Pressure-retaining bolting greater than 2" in diameter	Pressure-retaining bolts and studs, when removed	Volumetric and Surface	(2)

SUSQUEHANNA STEAM ELECTRIC STATION
UNIT #2
PRESERVICE EXAMINATION (CLASS 1)
(Continued)

ITEM NO.		EXAMINATION CATEGORY (TABLE IWB - 2500)	COMPONENTS AND PARTS TO BE EXAMINED	METHOD	REMARKS[1]
B6.3	B-G-2	Pressure-retaining bolting smaller than or equal to 2" in diameter	Pressure-retaining bolting	Visual	(2)
B6.4	B-K-1	Support members for valves	Integrally welded supports	Volumetric	(3)
B6.5	B-K-2	Support components for valves	Support components	Visual	
B6.7	B-M-2	Valve bodies	Valve bodies	Visual	(6)
B6.8	B-P	Components exempted from examination by IWB-1220	Exempted components	Visual (IWA-5000)	

SUSQUEHANNA STEAM ELECTRIC STATION
UNIT #2
PRESERVICE EXAMINATION (CLASS 2)

ITEM NO.	EXAMINATION CATEGORY (TABLE IWB - 2500)	COMPONENTS AND PARTS TO BE EXAMINED	METHOD	REMARKS[1]
		- PRESSURE VESSELS -		
C1.1	C-A Pressure-retaining welds in pressure vessels	Circumferential butt welds	Volumetric	(1) (11)
C1.2	C-B Pressure-retaining nozzle welds in vessel	Nozzle-to-vessel welds	Volumetric	(1) (11)
C3.10[2]	C-C Integrally welded support attachment to vessels	Integrally-welded support attachments	Surface	(3)
C4.10[2]	C-D Pressure-retaining bolting exceeding 2" diameter	Bolts and studs	Volumetric	(2)
		- PIPING -		
C2.1	C-F Pressure-retaining welds in piping in systems which circulate reactor coolant	Circumferential butt welds	Volumetric	(1)(8)(9)(10)
C2.1	C-G Pressure-retaining welds in piping in systems which circulate other than reactor coolant	Circumferential butt welds	Volumetric	(1)(8)(9)(10)
C2.2	C-F Pressure-retaining welds in piping in systems which circulate reactor coolant	Longitudinal weld joints in fittings	Volumetric	(1)

SUSQUEHANNA STEAM ELECTRIC STATION
UNIT #2
PRESERVICE EXAMINATION (CLASS 2)
(Continued)

ITEM NO.		EXAMINATION CATEGORY (TABLE IWB - 2500)	COMPONENTS AND PARTS TO BE EXAMINED	METHOD	REMARKS[1]
C2.2	C-G	Pressure-retaining welds in piping in systems which circulate other than reactor coolant	Longitudinal weld joints in fittings	Volumetric	(1)
C2.3	C-F	Pressure-retaining welds in piping in systems which circulate reactor coolant	Branch pipe-to-pipe weld joints	Volumetric	(1)
C2.3	C-G	Pressure-retaining welds in piping in systems which circulate other than reactor coolant	Branch pipe-to-pipe weld joints	Volumetric	(1)
C4.20[2]	C-D	Pressure-retaining bolting exceeding 2" diameter	Bolts and studs	Volumetric	(2)
C3.40[2]	C-E-1	Support members for piping	Integrally-welded support attachments	Surface	(3)
C2.6	C-E-2	Support components for piping	Support components	Visual	
			- PUMPS -		
C3.1	CF	Pressure-retaining welds in pumps in systems which circulate reactor coolant	Pump shell welds	Volumetric	(7)
C4.30[2]	C-D	Pressure-retaining bolting exceeding 1" diameter	Bolts and studs	Volumetric	(2)

SUSQUEHANNA STEAM ELECTRIC STATION
UNIT #2
PRESERVICE EXAMINATION (CLASS 2)
(Continued)

ITEM NO.		EXAMINATION CATEGORY (TABLE IWB - 2500)	COMPONENTS AND PARTS TO BE EXAMINED	METHOD	REMARKS[1]
C3.70[2]	C-E-1	Support members for pumps	Integrally-welded support attachments	Surface	(3)
C3.4	C-E-2	Support components for pumps	Support components	Visual	
			- VALVES -		
C4.2	C-D	Pressure-retaining bolting exceeding 2" in diameter	Bolts and studs	Volumetric	(2)
C3.100[2]	C-E-1	Support members for valves	Integrally-welded support attachments	Surface	(3)
C4.4	C-E-2	Support components for valves	Support components	Visual	

Footnotes:

1. Numbers listed designate applicable relief requests.

2. Designates item number from upgraded Code edition and addenda.

EXAMINATION REQUIREMENTS (IWD-2600)

REMARKS

Components in systems or portions of systems shall be subjected to the following examinations:

(a) Visual examination shall be conducted for evidence of component leakages (other than controlled or collected leakages), structural distress, or corrosion when the system is undergoing either a system inservice test, component functional test (i.e., valves and pumps) or a system pressure test.

(b) In the case of buried components (e.g., underground piping), valves shall be provided to permit isolation of the buried portions of piping for the purpose of conducting a system pressure test in lieu of the visual examination. A loss of system pressure during the test shall constitute evidence of component leakage.

(c) Supports (restraints) and hangers for components exceeding four-inch nominal pipe size whose structural integrity is relied upon to withstand design loads when the system function is required shall be visually examined to detect any loss of support capability, and evidence of inadequate restraint.

mts/chj260i:pas

SUSQUEHANNA UNIT #2
PRESERVICE INSPECTION
RELIEF REQUEST #8

I. IDENTIFICATION OF COMPONENTS:

Class 1, Category BJ, pressure retaining welds in piping.

Class 2, Category CF and CG pressure retaining welds in piping.

II. CODE REQUIREMENT

Category BJ - Table IWB-2600, Item Numbers B4.5, B4.6, B4.7 - of the ASME Code Code, 1974 Edition to Summer 1975 Addenda requires volumetric examination of 100%* of circumferential welds, longitudinal welds, and branch connections be performed completely as a preservice examination requirement prior to initial plant start-up.

Category CF/CG - Table IWC-2600, Item Numbers C2.1, C2.2, C2.3, C3.1 - of the ASME Code, 1974 Edition to Summer 1975 Addenda requires volumetric examination of 100%* and 50%*, respectively, of circumferential discontinuity welds, longitudinal welds, and branch connection welds be performed completely as a preservice examination requirement prior to initial plant start-up.

* excluding those exempt per IWB-1220, IWC-1220.

ASME Appendix III, Winter 1975 Addenda, requires an angle beam examination of the weld and required volume (the lesser of $1/2^t$ or 1") be performed scanning both normal and parallel to the weld.

III. BASIS FOR RELIEF:

Relief is required from the ASME Section XI examination requirements on the basis of complete inaccessiblity of the weld and required volume due to plant design.

IV. JUSTIFICATION:

The justification for requesting relief from ASME Section XI examination requirements is as follows:

1) The structural integrity of the welds is not in question. All Class 1 and Class 2 welds were subject to examination and testing requirements of ASME Section III.

2) Relief from examination of these welds do not affect overall plant quality or safety.

V. ALTERNATE PROVISIONS:

Welds are inaccessible to all methods of NDE.

MTS/rpj235c/pjs

RELIEF REQUEST #8

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-205-2-3J	CG C2.1	Main Steam	Pipe to Restraint Insert	Wrapper Plate	100%	RT	Turbine Building vent Stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.
DBB-221-1-FW1	CF C2.1	Reactor Core Isolation Cooling	Pipe to Valve	Wrapper Plate	100%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).

SUSQUEHANNA UNIT #2
PRESERVICE INSPECTION
RELIEF REQUEST #9

I. IDENTIFICATION OF COMPONENTS:

Class 1, Category BJ, pressure retaining welds in piping.

Class 2, Category CF and CG pressure retaining welds in piping.

II. CODE REQUIREMENT:

Category BJ - Table IWB-2600, Item Numbers B4.5, B4.6, B4.7 - of the ASME Code, 1974 Edition to Summer 1975 Addenda requires volumetric examination of 100%* of circumferential welds, longitudinal welds, and branch connections be performed completely as a preservice examination requirements prior to initial plant start-up.

Category CF/CG - Table IWC-2600, Item Numbers C2.1, C2.2, C2.3, C3.1 - of the ASME Code, 1974 Edition to Summer 1975 Addenda requires volumetric examination of 100%* and 50%*, respectively, of circumferential discontinuity welds, longitudinal welds, and branch connection welds be performed completely as a preservice examination requirement prior to initial plant start-up.

* Excluding those exempt per IWB-1200, IWC-1220.

ASME Appendix III, Winter 1975 Addenda, requires an angle beam examination of the weld and required volume (the less of $1/2^t$ or 1") be performed scanning both normal and parallel to the weld.

III. BASIS FOR RELIEF:

Relief is required from the ASME Section XI examination requirements on the basis of partial inaccessibility of the weld and required volume due to plant design.

IV. JUSTIFICATION:

The justification for requesting relief from ASME Section XI examination requirements is as follows:

1) The structural integrity of the piping pressure boundary is not in question. All the affected Class 1 and 2 welds were subject to examination and testing requirements of ASME Section III.

2) Welds of similar configuration, welding technique, etc., in the same run of pipe, subject to similar operating pressures and temperatures are accessible for examination and, as such, provide adequate verification, by sampling, of the piping pressure boundary.

3) Visual examination of the weld during system pressure testing will be performed to detect for evidence of leakage.

4) Overall level of plant quality and safety is not affected by incomplete examination of these welds.

V. ALTERNATE PROVISIONS:

A supplemental surface examination of the Class 2 welds will be performed where practical for preservice examination. Class 1 welds have received surface examination to satisfy ASME Section III; retesting at this time is redundant, and bears no benefit to plant safety.

Based on the most current Edition and Addenda of ASME Section XI, a surface examination of the welds will be required during subsequent inservice inspections, and will be more meaningful at that time.

MTS/rpj237c/pjs

RELIEF REQUEST #9

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
VNB-B21-3-20-F	BJ B4.5	Main Steam	Pipe to Sweep-o-let	1 Lug	3%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DBB-204-1-5A	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	25%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.
DBB-202-1-3A	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	25%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.

RELIEF REQUEST #9 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-202-1-5A	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	25%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.
DBB-201-1-3A	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	25%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.

RELIEF REQUEST #9 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-203-1-5B	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	25%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.
VNB-B21-4-17-F	BJ B4.5	Main Steam	Pipe to Sweep-o-let	1 Lug	5%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DBB-204-1-5B	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	25%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.

RELIEF REQUEST #9 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
VRR-B31-3-10-M[1]	BJ B4.5	Recirc.	Longitudinal Seam	Branch Line	5%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-10-L[1]	BJ B4.5	Recirc.	Longitudinal Seam	Branch Line	5%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-10-P[1]	BJ B4.5	Recirc.	Longitudinal Seam	Branch Line	10%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-10-Q[1]	BJ B4.5	Recirc.	Longitudinal Seam	Branch Line	10%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DBA-201-2-FW34	BJ B4.5	Reactor Water Cleanup	Pipe to Elbow	Rigid Restraint	35%	RT/PT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).

1. Obstructed areas are located outside of the required examination area (12 inches from the intersection with the edge of a circumferential weld) for subsequent inservice inspections.

RELIEF REQUEST #9 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-203-1-3A	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	13%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.
DBB-201-1-5B	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	13%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.
DLA-202-1-FW19	BJ B4.5	Feedwater	Pipe to Elbow	Branch Line	7%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.

RELIEF REQUEST #9 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
HBB-211-2-3-D	CF C2.1	Residual Heat Removal	Pipe to Elbow	Hanger Weld	10%	RT	During plant power operation, weld not pressurized. During normal system operation, (max. 165 psig), significant leakage detected by leak detection systems. Alternate shutdown cooling path (FSAR 15.2.9) is unaffected and condenser is also available for cooldown.
GBB-215-1-5A	CF C2.1	Residual Heat Removal	Pipe to Elbow	Lugs	5%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
DBB-214-1-9A	CF C2.1	High Pressure Coolant Injection	Pipe to Elbow	Lugs	5%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DCA-208-1-FW11	BJ B4.5	Residual Heat Removal	Elbow to Valve	Branch Line	5%	RT/PT	During plant power operation, weld not pressurized. During normal system operation, (max. 165 psig), significant leakage detected by leak detection systems. Alternate shutdown cooling path (FSAR 15.2.9) is unaffected and condenser is also available for cooldown.
DLA-201-1-FW6	BJ B4.5	Feedwater	Pipe to Valve	Welded Whip Restraint	60%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.

RELIEF REQUEST #9 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-207-1-FW3	CF C2.1	Residual Heat Removal	Pipe to Valve	Branch Line	10%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
DBB-207-2-FW3	CF C2.1	Residual Heat Removal	Pipe to Valve	Branch Line	5%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
DBB-219-1-1C	CF C2.1	Feedwater	Pipe to Tee	Branch Line	5%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DBB-213-1-FW3	CG C2.1	Core spray	Pipe to Pipe	Branch Line	5%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 475 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one core spray loop. Plant can be safely cooled down by unaffected core spray loop.

RELIEF REQUEST #9 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-207-1-FW1	CF C2.1	Residual Heat Removal	Pipe to Valve	Branch Line	15%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
VBB-202-1-FW1	CG C2.1	Control Rod Drive	Pipe to Reducer	Branch Line	5%	RT	During normal operation of the CRD system, significant leakage will be detected by area radiation monitors. Leakage can be manually isolated.
DBB-214-1-10B	CG C2.1	High Pressure Coolant Injection	Pipe to Flange	Branch Line	15%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DBB-221-3-FW3	CF C2.1	Reactor Core Isolation Cooling	Pipe to Valve	1)Branch Line 2)Geometry	18%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
HBB-211-2-11B	CF C2.1	Residual Heat Removal	Pipe to Tee	Plate Adjacent to Weld	5%	RT	During plant power operation, weld not pressurized. During normal system operation, (max. 165 psig), significant leakage detected by leak detection systems. Alternate shutdown cooling path (FSAR 15.2.9) is unaffected and condenser is also available for cooldown.

RELIEF REQUEST #9 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-221-3-FW2	CF C2.1	Reactor Core Isolation Cooling	Tee to Valve	1)Branch Line 2)Geometry	10%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DBB-217-1-FW2	CG C2.1	High Pressure Coolant Injection	Pipe to Valve	Pipe Support	8%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
GBB-205-2-1A	CF C2.1	Residual Heat Removal	Reducer to Reducer	Welded Hanger	25%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.

SUSQUEHANNA UNIT #2
PRESERVICE INSPECTION
RELIEF REQUEST #10

I. IDENTIFICATION OF COMPONENTS:

Class 1, Category BJ, pressure retaining welds in piping.

Class 2, Category CF and CG pressure retaining welds in piping.

II. CODE REQUIREMENT:

Category BJ - Table IWB-2600, Item Numbers B4.5, B4.6, B4.7 - of the ASME Code, 1974 Edition to Summer 1975 Addenda requires volumetric examination of 100%* of circumferential welds, longitudinal welds, and branch connections be performed completely as a preservice examination requirement prior to initial plant start-up.

Category CF/CG - Table IWC-2600, Item Numbers C2.1, C2.2, C2.3, C3.1 - of the ASME Code, 1974 Edition to Summer 1975 Addenda requires volumetric examination of 100%* and 50%*, respectively of circumferential discontinuity welds, longitudinal welds, and branch connection welds be performed completely as a preservice examination requirement prior to initial plant start-up.

* excluding those exempt per IWB-1220, IWC-1220.

ASME Appendix III, Winter 1975 Addenda, requires an angle beam examination of the weld and required volume (the lesser of $1/2^t$ or 1") be performed scanning both normal and parallel to the weld.

III. BASIS FOR RELIEF:

Relief is required from the ASME Section XI examination requirements on the basis of inaccessibility of the weld and required volume due to geometric configuration.

IV. JUSTIFICATION:

The justification for requesting relief from ASME Section XI examination requirements is as follows:

1) The structural integrity of the piping pressure boundary is not in question. The subject welds were inspected in accordance with the applicable examination and testing requirements of ASME Section III.

2) Other system welds are accessible and provide a basis for the integrity of the pressure boundary.

3) Visual examination of the weld during system pressure tests will be performed to detect for evidence of leakage.

4) Incomplete examination will not impact plant safety.

V. ALTERNATE PROVISIONS:

The structural integrity of all Class 1 welds covered has been verified by satisfactory completion of all ASME Section III examination. Supplemental examination, such as a surface examination performed at this time is redundant and would not result in increased levels of plant safety.

Based on the most current Edition and Addenda of ASME Section XI, a surface examination of the welds will be required during subsequent inservice inspections, and will be more meaningful at that time.

Class 2 piping welds will receive a supplemental surface examination where practical.

Welds requiring relief from examination requirements due to geometric configuration were evaluated for radiographic examination with specific attention to feasibility during an inservice examination. In most cases, current state-of-the-art prohibited this method due to configuration and environment. New or improved examination techniques may improve inspectability volumetrically during future inspection intervals; these techniques will be evaluated for applicability to SSES #2 and implemented as required.

MTS/rpj236c/pjs

RELIEF REQUEST #10

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
VRR-B31-3-FWA10	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-FWA11	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-FWA13	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-FWA14	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-FWB10	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-FWB11	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-FWB13	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
VRR-B31-4-FWB14	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-FWA33	BJ B4.5	Recirc.	Tee to Valve	Part Geometry	100%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-FWB33	BJ B4.5	Recirc.	Tee to Valve	Part Geometry	100%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-FWA24	BJ B4.5	Recirc.	Valve F032 A to Pipe	Part Geometry	100%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-FWB24	BJ B4.5	Recirc.	Valve F032B to Pipe	Part Geometry	100%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-FWB23	BJ B4.5	Recirc.	Elbow to Valve	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-3-F	BJ B4.5	Recirc.	Pipe to Cross	Part Geometry	15%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DCA-207-1-FW-3	BJ B4.5	Core Spray	Valve F006A to Valve F007A	Part Geometry	100%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DCA-207-2-FW3	BJ B4.5	Core Spray	Valve F006B to Valve F007B	Part Geometry	100%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DLA-204-1-FW5	BJ B4.5	Feedwater	Pipe to Safe End	Part Geometry	35%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DLA-204-1-FW21	BJ B4.5	Feedwater	Pipe to Safe End	Part Geometry	35%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DLA-202-1-FW5	BJ B4.5	Feedwater	Pipe to Safe End	Part Geometry	35%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DLA-202-1-FW10	BJ B4.5	Feedwater	Pipe to Safe End	Part Geometry	35%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DBA-216-1-FWC14	NA	Main Steam (Augmented)	Elbow to Branch	Part Geometry	30%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBA-214-1-FWA14	NA	Main Steam (Augmented)	Elbow to Branch	Part Geometry	30%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.
DBA-214-1-FW22	NA	Main Steam (Augmented)	Elbow to Tee	Part Geometry	30%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.
DBA-212-1-FW4	BJ B4.5	Main Steam	Tee to Tee	Part Geometry	30%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DBB-215-1-FW10	CF C2.1	Residual Heat Removal	Elbow to Valve	Part Geometry	10%	RT/PT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DBB-215-1-FW6	CF C2.1	Residual Heat Removal	Elbow to Valve	Part Geometry	10%	RT/PT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
GBB-212-2-FW14	CF C2.1	Residual Heat Removal	Valve F007B to Flued Head	Part Geometry	8%	RT	Containment boundary weld that is not normally pressurized during plant power operation. During normal system operation, leak detection systems would detect significant leakage. Maximum system operating pressures at welds are 460 psig for RHR, 150 psig for HPCI, 25 psig for RCIC. HPCI and RCIC are not required for normal shutdowns. Cooldown is achieved by the unaffected RHR Loop or the main condenser.
GBB-212-1-FW14	CF C2.1	Residual Heat Removal	Valve F007A to Flued Head	Part Geometry	33%	RT	Containment boundary weld that is not normally pressurized during plant power operation. During normal system operation, leak detection systems would detect significant leakage. Maximum system operating pressures at welds are 460 psig for RHR, 150 psig for HPCI, 25 psig for RCIC. HPCI and RCIC are not required for normal shutdowns. Cooldown is achieved by the unaffected RHR Loop or the main condenser.
GBB-216-2-FW1	CF C2.1	Residual Heat Removal	Reducer to Nozzle	Part Geometry	10%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
GBB-206-1-FW2	CF C2.1	Residual Heat Removal	Tee to Valve	Part Geometry	33%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
GBB-216-1-FW1	CF C2.1	Residual Heat Removal	Reducer to Nozzle	Part Geometry	15%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
GBB-205-1-FW1	CF C2.1	Residual Heat Removal	Valve to Reducer	Part Geometry	65%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
DLA-203-1-FW2	BJ B4.5	Feedwater	Flued Head to Valve	Part Geometry	25%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DCA-207-1-FW5	BJ B4.5	Core Spray	Reducer to Nozzle	Part Geometry	20%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DCA-207-2-FW10	BJ B4.5	Core Spray	Reducer to Nozzle	Part Geometry	15%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DCA-202-2-FW1	BJ B4.5	Reactor Water Cleanup	Tee to Weld-o-let	Part Geometry	60%	RT/PT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
DCA-209-1-FW2	BJ B4.5	Core Spray	Flued Head to Valve	Part Geometry	50%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.
DCA-209-2-FW2	BJ B4.5	Core Spray	Flued Head to Valve	Part Geometry	50%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBA-201-1-FW10	BJ B4.5	Reactor Water Cleanup	Flued Head to Valve	Part Geometry	20%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.
DBA-202-2-FW6	BJ B4.5	High Pressure Coolant Injection	Flued Head to Valve	Part Geometry	18%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be deteched by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.
DCA-210-1-FW8	BJ B4.5	Residual Heat Removal	Elbow to Valve	Part Geometry	10%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DCA-211-3-FW12	BJ B4.5	Residual Heat Removal	Elbow to Flange	Part Geometry	8%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
GBB-201-4-FW1	CG C2.1	Core Spray	Pipe to Valve	Part Geometry	8%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 475 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one core spray loop. Plant can be safely cooled down by unaffected core spray loop.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
GBB-204-3-FW15	CF C2.1	Residual Heat Removal	Pipe to Flange	Part Geometry	10%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
EBB-202-1-FW4	CG C2.1	High Pressure Coolant Injection	Pipe to Flange	Part Geometry	8%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
EBB-202-1-FW5	CG C2.1	High Pressure Coolant Injection	Pipe to Flange	Part Geometry	8%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DBB-222-1-3B	NA	Reactor Water Cleanup (Augmented)	Tee to Flange	Part Geometry	10%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DCA-211-3-2A	BJ B4.5	Residual Heat Removal	Pipe to Flange	Part Geometry	20%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
HBB-218-2-FW5	CG C2.1	Containment Atmosphere Control	Pipe to Valve	Part Geometry	13%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is exposed to a pressure of less than 10 inches of water. Any leakage is detectable during Integrated Leak Rate Testing as required by plant Tech. Specs. System is not required for plant shutdown.
HBB-201-1-FW3	CG C2.1	Reactor Core Isolation Cooling	Pipe to Valve	Part Geometry	13%	RT	Leak detection system detects significant leakage; containment isolation valves perform weld isolation function. HPCI performs backup function for RPV water addition for safe shutdown.
HBB-201-1-FW10	CG C2.1	Reactor Core Isolation Cooling	Pipe to Valve	Part Geometry	10%	RT	Leak detection system detects significant leakage; containment isolation valves perform weld isolation function. HPCI performs backup function for RPV water addition for safe shutdown.
GBB-205-2-FW3	CF C2.1	Residual Heat Removal	Pipe to Valve	Part Geometry	10%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
HBB-211-2-FW14	CF C2.1	Residual Heat Removal	Valve to Elbow	Part Geometry	10%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
HBB-201-1-FW4	CG C1.2	Reactor Core Isolation Cooling	Flued Head to Valve	Part Geometry	10%	RT	Containment boundary weld that is not normally pressurized during plant operation. During normal system operation, leak detection systems would detect significant leakage. Maximum system operating pressures at welds are 460 psig for RHR, 150 psig for HPCI, 25 psig for RCIC. HPCI and RCIC are not required for normal shutdowns. Cooldown is achieved by the unaffected RHR loop or the main condenser.
2P-206-A-361-4-6 B C D	CG C2.1	Core Spray (Pump)	Elbow to Nozzle	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 475 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one core spray loop. Plant can be safely cooled down by unaffected core spray loop.
2P-202-A-361-4-6 B C D	CF C2.1	Residual Heat Removal (Pump)	Elbow to Nozzle	Part Geometry	30%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 460 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one RHR loop. Plant can be safely cooled down by unaffected RHR loop.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
2P-202-A-361-1-5 B C D	CF C2.1	Residual Heat Removal (Pump)	Support Shell to Head Hub	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 460 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one RHR loop. Plant can be safely cooled down by unaffected RHR loop.
2P-202-A-361-5-13 B C D	CF C2.1	Residual Heat Removal (Pump)	Nozzle to Vertical Support Shell	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 460 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one RHR loop. Plant can be safely cooled down by unaffected RHR loop.
2P-202-A-361-3-13 B C D	CF C2.1	Residual Heat Removal (Pump)	Flange to Nozzle	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 460 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one RHR loop. Plant can be safely cooled down by unaffected RHR loop.
2P-202-A-361-5-6 B C D	CF C2.1	Residual Heat Removal (Pump)	Elbow to Vertical Support Shell	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 460 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one RHR loop. Plant can be safely cooled down by unaffected RHR loop.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
2P-206-A 361-5-13 B C D	CG C2.1	Core Spray (Pump)	Inlet Nozzle to Vertical Support Shell	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 475 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one core spray loop. Plant can be safely cooled down by unaffected core spray loop.
2P-206-A 361-5-6 B C D	CG C2.1	Core Spray (Pump)	Elbow to Vertical Support Shell	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 475 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one core spray loop. Plant can be safely cooled down by unaffected core spray loop.
GBB-201-1-FW2	CG C2.1	Core Spray	Valve to Pipe	Part Geometry	25%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 475 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one core spray loop. Plant can be safely cooled down by unaffected core spray loop.
VBB-202-1-5B	CG C2.1	Control Rod Drive	Pipe to Elbow	Part Geometry	5%	RT	During normal operation of the CRD system, significant leakage will be detected by area radiation monitors. Leakage can be manually isolated.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
GBB-204-1-FW7	CF C2.1	Residual Heat Removal	Valve to Pipe	Part Geometry	5%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.

mts/chj2501:pas

SUSQUEHANNA UNIT #2
PRESERVICE INSPECTION
RELIEF REQUEST #11

I. IDENTIFICATION OF COMPONENTS:

Class 2 pressure retaining welds and pressure retaining nozzle welds in the Residual Heat Removal heat exchangers.

II. CODE REQUIREMENTS:

Category C-A of ASME Section XI, 1974 Edition to Summer 1975 Addenda requires volumetric examination of shell and head circumferential discontinuity welds and base material for one plate thickness beyond the edge of the weld joint.

Category C-B of ASME Section XI, 1974 Edition to Summer 1975 Addenda requires volumetric examination of 100% of the nozzle-to-vessel attachment welds.

These examinations must be performed completely, once, as a preservice examination requirement prior to initial plant startup.

III. BASIS FOR RELIEF:

Relief is required from the ASME Section XI examination requirements on the basis of partial inaccessibility of the weld due to design of the component.

IV. JUSTIFICATION:

The justification for requesting relief from ASME Section XI preservice examination requirements is as follows:

1) The structural integrity of the pressure boundary has been verified by ASME Section III construction code testing requirements.

2) Accessible portions of the welds have been satisfactorily inspected to ASME Section XI.

V. ALTERNATE PROVISIONS:

A surface examination will be performed on the unexamined areas.

mts/rpj259c:pas

RELIEF REQUEST #11

WELD IDENTIFICATION NUMBER	CODE CATEGORY AND ITEM NUMBER	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED (APPROXIMATED)	ASME SECTION III EXAMINATION	SAFETY IMPACT
2E-205-A-R	CA C1.1	RHR	Shell to Head	Welded Attachment	5%	PT, UT, RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 460 psig. Leak detection system detects significant leakage and can affect one RHR loop. Plant can be safely cooled down by unaffected RHR loop.
2E-205-A-A	CB C1.2	RHR	Shell to Nozzle	Adjacent Weld	20%	PT, UT, RT	"
2E-205-A-AC	CA C1.1	RHR	Shell to Flange	Outlet Nozzle	20%	PT, UT, RT	"
2E-205-B-R	CA C1.1	RHR	Shell to Head	Welded Attachment	5%	PT, UT, RT	"
2E-205-B-A	CB C1.2	RHR	Shell to Nozzle	Adjacent Weld	20%	PT, UT, RT	"
2E-205-B-AC	CA C1.1	RHR	Shell to Flange	Outlet Nozzle	20%	PT, UT, RT	"
2E-205-A-P	CB C1.2	RHR	Shell to Nozzle	Adjacent Weld-o-let	5%	PT, UT, RT	"
2E-205-B-P	CB C1.2	RHR	Shell to Nozzle	Adjacent Weld-o-let	5%	PT, UT, RT	"

mts/chj259c:pas

SUSQUEHANNA UNIT #2
PRESERVICE INSPECTION
RELIEF REQUEST #12

I. IDENTIFICATION OF COMPONENTS:

Class 1 feedwater inlet nozzles N4A and N4D.

II. CODE REQUIREMENTS:

Category B-D of ASME Section XI, 1974 Edition to Winter 1975 Addenda requires 100% volumetric examination of the nozzle to vessel weld and adjacent areas of nozzle and vessel. (Figure IWB-3512.1(a)).

These examinations must be performed completely as a preservice examination requirement prior to initial plant start-up.

III. BASIS FOR RELIEF:

Relief is required from ASME Section XI examination requirements on the basis of incomplete coverage of the weld and required volume due to vessel configuration. The proximity of nozzles N11A and B to the subject feedwater nozzles precludes complete examination of weld seems N4A and N4D as follows:

N4A

300° - Completely examined (automatic)

60° - Not examined due to interference from nozzle N11A

N4D

300° - Completely examined (automatic)

60° - Not examined due to interference from nozzle N11B

Spacing of only 4.5" between the nozzles allows only a best effort manual examination of the affected areas.

IV. JUSTIFICATION:

The justification for requesting relief from ASME Section XI examination requirements is as follows:

1) The excluded area is 16.67 percent of the weld seam; 83.33 percent has been completely examined.

2) Four (4) nozzles of the same configuration and service (N4B, N4C, N4E, N4F) have been completely examined.

3) The integrity of welds have been verified by ultrasonic and magnetic particle examination during fabrication.

4) All N4 nozzle to vessel welds were liquid penetrant tested following RPV hydrotest and accepted.

V. ALTERNATE PROVISIONS:

Due to extensive testing already performed during fabrication, no additional NDE is required to establish integrity of the welds.

mts/rpj259c:pas

RELIEF REQUEST #8

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-205-2-3J	CG C2.1	Main Steam	Pipe to Restraint Insert	Wrapper Plate	100%	RT	Turbine Building vent Stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.
DBB-221-1-FW1	CF C2.1	Reactor Core Isolation Cooling	Pipe to Valve	Wrapper Plate	100%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).

RELIEF REQUEST #9

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
VNB-B21-3-20-F	BJ B4.5	Main Steam	Pipe to Sweep-o-let	1 Lug	3%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DBB-204-1-5A	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	25%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.
DBB-202-1-3A	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	25%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-202-1-5A	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	25%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.
DBB-201-1-3A	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	25%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-203-1-5B	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	25%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.
VNB-B21-4-17-F	BJ B4.5	Main Steam	Pipe to Sweep-o-let	1 Lug	5%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DBB-204-1-5B	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	25%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
VRR-B31-3-10-M[1]	BJ B4.5	Recirc.	Longitudinal Seam	Branch Line	5%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-10-L[1]	BJ B4.5	Recirc.	Longitudinal Seam	Branch Line	5%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-10-P[1]	BJ B4.5	Recirc.	Longitudinal Seam	Branch Line	10%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-10-Q[1]	BJ B4.5	Recirc.	Longitudinal Seam	Branch Line	10%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DBA-201-2-FW34	BJ B4.5	Reactor Water Cleanup	Pipe to Elbow	Rigid Restraint	35%	RT/PT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).

1. Obstructed areas are located outside of the required examination area (12 inches from the intersection with the edge of a circumferential weld) for subsequent inservice inspections.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-203-1-3A	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	13%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.
DBB-201-1-5B	CG C2.1	Main Steam	Pipe to Restraint Insert	4 Restraint Braces	13%	RT	Turbine building vent stack radiation monitor will detect significant leakage. Leakage greater than 250 GPM will be detected by turbine building radwaste sump high level alarm. Large amounts of leakage (>500 GPM) will overflow sump and flood detectors will alert operators. Leakage that causes greater than 130% of normal flow in one main steam line will automatically close main steam line isolation valves thereby isolating the leak. Plant shutdown can be accomplished through the use of safe shutdown system or emergency core cooling systems, depending upon the size of the leak.
DLA-202-1-FW19	BJ B4.5	Feedwater	Pipe to Elbow	Branch Line	7%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
HBB-211-2-3-D	CF C2.1	Residual Heat Removal	Pipe to Elbow	Hanger Weld	10%	RT	During plant power operation, weld not pressurized. During normal system operation, (max. 165 psig), significant leakage detected by leak detection systems. Alternate shutdown cooling path (FSAR 15.2.9) is unaffected and condenser is also available for cooldown.
GBB-215-1-5A	CF C2.1	Residual Heat Removal	Pipe to Elbow	Lugs	5%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
DBB-214-1-9A	CF C2.1	High Pressure Coolant Injection	Pipe to Elbow	Lugs	5%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DCA-208-1-FW11	BJ B4.5	Residual Heat Removal	Elbow to Valve	Branch Line	5%	RT/PT	During plant power operation, weld not pressurized. During normal system operation, (max. 165 psig), significant leakage detected by leak detection systems. Alternate shutdown cooling path (FSAR 15.2.9) is unaffected and condenser is also available for cooldown.
DLA-201-1-FW6	BJ B4.5	Feedwater	Pipe to Valve	Welded Whip Restraint	60%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-207-1-FW3	CF C2.1	Residual Heat Removal	Pipe to Valve	Branch Line	10%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
DBB-207-2-FW3	CF C2.1	Residual Heat Removal	Pipe to Valve	Branch Line	5%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
DBB-219-1-1C	CF C2.1	Feedwater	Pipe to Tee	Branch Line	5%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DBB-213-1-FW3	CG C2.1	Core spray	Pipe to Pipe	Branch Line	5%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 475 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one core spray loop. Plant can be safely cooled down by unaffected core spray loop.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

RELIEF REQUEST #9 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-207-1-FW1	CF C2.1	Residual Heat Removal	Pipe to Valve	Branch Line	15%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
VBB-202-1-FW1	CG C2.1	Control Rod Drive	Pipe to Reducer	Branch Line	5%	RT	During normal operation of the CRD system, significant leakage will be detected by area radiation monitors. Leakage can be manually isolated.
DBB-214-1-10B	CG C2.1	High Pressure Coolant Injection	Pipe to Flange	Branch Line	15%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DBB-221-3-FW3	CF C2.1	Reactor Core Isolation Cooling	Pipe to Valve	1)Branch Line 2)Geometry	18%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
HBB-211-2-11B	CF C2.1	Residual Heat Removal	Pipe to Tee	Plate Adjacent to Weld	5%	RT	During plant power operation, weld not pressurized. During normal system operation, (max. 165 psig), significant leakage detected by leak detection systems. Alternate shutdown cooling path (FSAR 15.2.9) is unaffected and condenser is also available for cooldown.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBB-221-3-FW2	CF C2.1	Reactor Core Isolation Cooling	Tee to Valve	1)Branch Line 2)Geometry	10%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DBB-217-1-FW2	CG C2.1	High Pressure Coolant Injection	Pipe to Valve	Pipe Support	8%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
GBB-205-2-1A	CF C2.1	Residual Heat Removal	Reducer to Reducer	Welded Hanger	25%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.

RELIEF REQUEST #10

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
VRR-B31-3-FWA10	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-FWA11	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-FWA13	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-FWA14	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-FWB10	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-FWB11	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-FWB13	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
VRR-B31-4-FWB14	BJ B4.5	Recirc.	Sweep-o-let to Riser Pipe	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-FWA33	BJ B4.5	Recirc.	Tee to Valve	Part Geometry	100%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-FWB33	BJ B4.5	Recirc.	Tee to Valve	Part Geometry	100%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-FWA24	BJ B4.5	Recirc.	Valve F032 A to Pipe	Part Geometry	100%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-FWB24	BJ B4.5	Recirc.	Valve F032B to Pipe	Part Geometry	100%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-4-FWB23	BJ B4.5	Recirc.	Elbow to Valve	Part Geometry	25%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
VRR-B31-3-3-F	BJ B4.5	Recirc.	Pipe to Cross	Part Geometry	15%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.

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WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DCA-207-1-FW-3	BJ B4.5	Core Spray	Valve F006A to Valve F007A	Part Geometry	100%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DCA-207-2-FW3	BJ B4.5	Core Spray	Valve F006B to Valve F007B	Part Geometry	100%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DLA-204-1-FW5	BJ B4.5	Feedwater	Pipe to Safe End	Part Geometry	35%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DLA-204-1-FW21	BJ B4.5	Feedwater	Pipe to Safe End	Part Geometry	35%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DLA-202-1-FW5	BJ B4.5	Feedwater	Pipe to Safe End	Part Geometry	35%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DLA-202-1-FW10	BJ B4.5	Feedwater	Pipe to Safe End	Part Geometry	35%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DBA-216-1-FWC14	NA	Main Steam (Augmented)	Elbow to Branch	Part Geometry	30%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBA-214-1-FWA14	NA	Main Steam (Augmented)	Elbow to Branch	Part Geometry	30%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.
DBA-214-1-FW22	NA	Main Steam (Augmented)	Elbow to Tee	Part Geometry	30%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.
DBA-212-1-FW4	BJ B4.5	Main Steam	Tee to Tee	Part Geometry	30%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DBB-215-1-FW10	CF C2.1	Residual Heat Removal	Elbow to Valve	Part Geometry	10%	RT/PT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DBB-215-1-FW6	CF C2.1	Residual Heat Removal	Elbow to Valve	Part Geometry	10%	RT/PT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
GBB-212-2-FW14	CF C2.1	Residual Heat Removal	Valve F007B to Flued Head	Part Geometry	8%	RT	Containment boundary weld that is not normally pressurized during plant power operation. During normal system operation, leak detection systems would detect significant leakage. Maximum system operating pressures at welds are 460 psig for RHR, 150 psig for HPCI, 25 psig for RCIC. HPCI and RCIC are not required for normal shutdowns. Cooldown is achieved by the unaffected RHR Loop or the main condenser.
GBB-212-1-FW14	CF C2.1	Residual Heat Removal	Valve F007A to Flued Head	Part Geometry	33%	RT	Containment boundary weld that is not normally pressurized during plant power operation. During normal system operation, leak detection systems would detect significant leakage. Maximum system operating pressures at welds are 460 psig for RHR, 150 psig for HPCI, 25 psig for RCIC. HPCI and RCIC are not required for normal shutdowns. Cooldown is achieved by the unaffected RHR Loop or the main condenser.
GBB-216-2-FW1	CF C2.1	Residual Heat Removal	Reducer to Nozzle	Part Geometry	10%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
GBB-206-1-FW2	CF C2.1	Residual Heat Removal	Tee to Valve	Part Geometry	33%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
GBB-216-1-FW1	CF C2.1	Residual Heat Removal	Reducer to Nozzle	Part Geometry	15%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
GBB-205-1-FW1	CF C2.1	Residual Heat Removal	Valve to Reducer	Part Geometry	65%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
DLA-203-1-FW2	BJ B4.5	Feedwater	Flued Head to Valve	Part Geometry	25%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.

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WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DCA-207-1-FW5	BJ B4.5	Core Spray	Reducer to Nozzle	Part Geometry	20%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DCA-207-2-FW10	BJ B4.5	Core Spray	Reducer to Nozzle	Part Geometry	15%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DCA-202-2-FW1	BJ B4.5	Reactor Water Cleanup	Tee to Weld-o-let	Part Geometry	60%	RT/PT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
DCA-209-1-FW2	BJ B4.5	Core Spray	Flued Head to Valve	Part Geometry	50%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.
DCA-209-2-FW2	BJ B4.5	Core Spray	Flued Head to Valve	Part Geometry	50%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.

RELIEF REQUEST #10 (Continued)

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
DBA-201-1-FW10	BJ B4.5	Reactor Water Cleanup	Flued Head to Valve	Part Geometry	20%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be detected by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.
DBA-202-2-FW6	BJ B4.5	High Pressure Coolant Injection	Flued Head to Valve	Part Geometry	18%	RT/PT	Affects reactor coolant pressure boundary (RCPB); however, inside containment isolation valve performs RCPB isolation function. Any significant RCPB leakage would be deteched by leak detection systems, which alert plant personnel to inspect and shutdown plant using unaffected systems.
DCA-210-1-FW8	BJ B4.5	Residual Heat Removal	Elbow to Valve	Part Geometry	10%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
DCA-211-3-FW12	BJ B4.5	Residual Heat Removal	Elbow to Flange	Part Geometry	8%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.
GBB-201-4-FW1	CG C2.1	Core Spray	Pipe to Valve	Part Geometry	8%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 475 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one core spray loop. Plant can be safely cooled down by unaffected core spray loop.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
GBB-204-3-FW15	CF C2.1	Residual Heat Removal	Pipe to Flange	Part Geometry	10%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
EBB-202-1-FW4	CG C2.1	High Pressure Coolant Injection	Pipe to Flange	Part Geometry	8%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
EBB-202-1-FW5	CG C2.1	High Pressure Coolant Injection	Pipe to Flange	Part Geometry	8%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DBB-222-1-3B	NA	Reactor Water Cleanup (Augmented)	Tee to Flange	Part Geometry	10%	RT	Leak detection systems detect weld leakage, resulting in either manual or automatic isolation of leak. These lines are not required for normal safe shutdowns and alternate shutdown methods are available (e.g., feedwater, RCIC, main condenser).
DCA-211-3-2A	BJ B4.5	Residual Heat Removal	Pipe to Flange	Part Geometry	20%	RT/PT	Affects RCPB; weld cannot be isolated. However RCPB leak detection systems detect leakage. Plant Tech. Specs. require plant shutdown with leakage greater than 5 GPM.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
HBB-218-2-FW5	CG C2.1	Containment Atmosphere Control	Pipe to Valve	Part Geometry	13%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is exposed to a pressure of less than 10 inches of water. Any leakage is detectable during Integrated Leak Rate Testing as required by plant Tech. Specs. System is not required for plant shutdown.
HBB-201-1-FW3	CG C2.1	Reactor Core Isolation Cooling	Pipe to Valve	Part Geometry	13%	RT	Leak detection system detects significant leakage; containment isolation valves perform weld isolation function. HPCI performs backup function for RPV water addition for safe shutdown.
HBB-201-1-FW10	CG C2.1	Reactor Core Isolation Cooling	Pipe to Valve	Part Geometry	10%	RT	Leak detection system detects significant leakage; containment isolation valves perform weld isolation function. HPCI performs backup function for RPV water addition for safe shutdown.
GBB-205-2-FW3	CF C2.1	Residual Heat Removal	Pipe to Valve	Part Geometry	10%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
HBB-211-2-FW14	CF C2.1	Residual Heat Removal	Valve to Elbow	Part Geometry	10%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.
HBB-201-1-FW4	CG C1.2	Reactor Core Isolation Cooling	Flued Head to Valve	Part Geometry	10%	RT	Containment boundary weld that is not normally pressurized during plant operation. During normal system operation, leak detection systems would detect significant leakage. Maximum system operating pressures at welds are 460 psig for RHR, 150 psig for HPCI, 25 psig for RCIC. HPCI and RCIC are not required for normal shutdowns. Cooldown is achieved by the unaffected RHR loop or the main condenser.
2P-206-A-361-4-6 B C D	CG C2.1	Core Spray (Pump)	Elbow to Nozzle	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 475 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one core spray loop. Plant can be safely cooled down by unaffected core spray loop.
2P-202-A-361-4-6 B C D	CF C2.1	Residual Heat Removal (Pump)	Elbow to Nozzle	Part Geometry	30%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 460 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one RHR loop. Plant can be safely cooled down by unaffected RHR loop.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
2P-202-A-361-1-5 B C D	CF C2.1	Residual Heat Removal (Pump)	Support Shell to Head Hub	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 460 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one RHR loop. Plant can be safely cooled down by unaffected RHR loop.
2P-202-A-361-5-13 B C D	CF C2.1	Residual Heat Removal (Pump)	Nozzle to Vertical Support Shell	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 460 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one RHR loop. Plant can be safely cooled down by unaffected RHR loop.
2P-202-A-361-3-13 B C D	CF C2.1	Residual Heat Removal (Pump)	Flange to Nozzle	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 460 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one RHR loop. Plant can be safely cooled down by unaffected RHR loop.
2P-202-A-361-5-6 B C D	CF C2.1	Residual Heat Removal (Pump)	Elbow to Vertical Support Shell	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 460 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one RHR loop. Plant can be safely cooled down by unaffected RHR loop.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
2P-206-A 361-5-13 B C D	CG C2.1	Core Spray (Pump)	Inlet Nozzle to Vertical Support Shell	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 475 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one core spray loop. Plant can be safely cooled down by unaffected core spray loop.
2P-206-A 361-5-6 B C D	CG C2.1	Core Spray (Pump)	Elbow to Vertical Support Shell	Part Geometry	10%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 475 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one core spray loop. Plant can be safely cooled down by unaffected core spray loop.
GBB-201-1-FW2	CG C2.1	Core Spray	Valve to Pipe	Part Geometry	25%	RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 475 psig. Leak detection system detects significant leakage. Significant leakage of weld can affect one core spray loop. Plant can be safely cooled down by unaffected core spray loop.
VBB-202-1-5B	CG C2.1	Control Rod Drive	Pipe to Elbow	Part Geometry	5%	RT	During normal operation of the CRD system, significant leakage will be detected by area radiation monitors. Leakage can be manually isolated.

WELD IDENTIFICATION NO.	CODE CATEGORY & ITEM NO.	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED	ASME SECTION III EXAMINATION	SAFETY IMPACT
GBB-204-1-FW7	CF C2.1	Residual Heat Removal	Valve to Pipe	Part Geometry	5%	RT	During normal plant power operation, welds are not under pressure. During normal system operation, significant leakage of weld can affect pressure boundary of one RHR loop. However, significant leakage is detectable by leak detection systems or loss of system function. Plant can be safely cooled down by unaffected RHR loop or main condenser.

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RELIEF REQUEST #11

WELD IDENTIFICATION NUMBER	CODE CATEGORY AND ITEM NUMBER	SYSTEM	CONFIGURATION	NATURE OF OBSTRUCTION	% OF SCAN OBSTRUCTED (APPROXIMATED)	ASME SECTION III EXAMINATION	SAFETY IMPACT
2E-205-A-R	CA C1.1	RHR	Shell to Head	Welded Attachment	5%	PT, UT, RT	During normal plant power operation, weld is not pressurized. During normal system operation, weld is under a maximum pressure of 460 psig. Leak detection system detects significant leakage and can affect one RHR loop. Plant can be safely cooled down by unaffected RHR loop.
2E-205-A-A	CB C1.2	RHR	Shell to Nozzle	Adjacent Weld	20%	PT, UT, RT	"
2E-205-A-AC	CA C1.1	RHR	Shell to Flange	Outlet Nozzle	20%	PT, UT, RT	"
2E-205-B-R	CA C1.1	RHR	Shell to Head	Welded Attachment	5%	PT, UT, RT	"
2E-205-B-A	CB C1.2	RHR	Shell to Nozzle	Adjacent Weld	20%	PT, UT, RT	"
2E-205-B-AC	CA C1.1	RHR	Shell to Flange	Outlet Nozzle	20%	PT, UT, RT	"
2E-205-A-P	CB C1.2	RHR	Shell to Nozzle	Adjacent Weld-o-let	5%	PT, UT, RT	"
2E-205-B-P	CB C1.2	RHR	Shell to Nozzle	Adjacent Weld-o-let	5%	PT, UT, RT	"

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