JOSEPH M. FARLEY NUCLEAR PLANT UNIT NO. 1
SECOND 10-YEAR INSERVICE INSPECTION PROGRAM
ASME CODE CLASS 1, 2, AND 3 COMPONENTS

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1.7.1 ULTRASONIC

Ultrasonic examinations will be conducted in accordance with the provision of Appendix III of ASME Section XI, paragraphs IWA-2232 and IWA-2240. Examination of vessels less than or equal to 2 inches in thickness and bolting greater than 2 inches in diameter, and with center-drilled holes, will be performed to the requirements of Code Cases N-435-1 and N-307-1, respectively.

1.7.2 RADIOGRAPHY

Radiographic techniques will be used to supplement ultrasonic examination as required.

1.7.3 EDDY CURRENT

Eddy current examinations will be performed on the steam generator tubing in accordance with the provisions of Appendix IV of Section XI and the plant Technical Specifications.

1.7.4 LIQUID PENETRANT

Dye penetrant examinations will be used whenever a surface examination is required on nonferrous components.

1.7.5 MAGNETIC PARTICLE

Magnetic particle tests will usually be used when surface examination of ferrous components is required.

1.7.6 VISUAL

The following visual examinations will be employed as appropriate:

- VT-1: To detect detrimental condition(s) of parts, components, or on examined surfaces.
- VT-2: To locate evidence of leakage during a system or functional test.

VT-3: To determine the general mechanical and structural conditions of components and their supports, and also to determine conditions that could affect operability or functional adequacy of snubbers, and constant load and spring type supports.

1.8 EVALUATION OF EXAMINATION RESULTS

Examination results are evaluated in accordance with IWA-3000, IWB-3000, and IWF-3000 of the ASME Code, Section XI. Articles IWC-3000 and IWD-3000, titled "Acceptance Standards for Flaw Indications," are in the course of preparation and, as yet, are not available for use. Therefore, the results of IWB-3000 may be utilized for ISI Class 2 and 3 components.

1.9 REPAIR AND REPLACEMENT PROGRAM

Alabama Power Company's repair and replacement program is defined in various plant administrative and departmental procedures. The detailed program for welding and related activities is defined in the Special Processes Manual, FNP-0-M-23. Repaired or replaced components which are subject to the inservice inspection requirements of this program shall receive a preservice examination in order to establish a baseline for comparison with subsequent inservice examinations.

1.10 LIMITATIONS OF EXAMINATIONS

Limitations may occur for the examination of piping system circumferential butt welds (Categories B-J and C-F) when the welds occur at geometric discontinuities such as pipe-to-vessel welds, pipe-to-fitting welds, or fitting-to-fitting welds. The volume of weld and base material required to be examined for piping welds has changed significantly from the first 10-year inspection interval. Limitations evident during the first interval may no longer be relevent.

For pipe-to-fitting or pipe-to-vessel nozzle welds, examinations can be performed to the extent required by III-3230 of Section XI from the pipe surface. Examination from the fitting side would be dependent upon the geometric configuration. Where elbows or tees are concerned, examinations can be performed from the fitting side except where the intrados of the fitting prevents adequate ultrasonic coupling. No examinations can be performed from the fitting side when it is a valve or a flange. In all cases, the required volume of the weld and base material will be examined. Where limitations are encountered and ultrasonic examinations cannot be performed on the required volume of the weld and base material, surface or visual examinations may be performed to supplement limited volumetric examination.

In instances where the locations of pipe supports or hangers restrict the access available for the examination of pipe welds as required by IWB-2500, examinations will be performed to the extent practical unless removal of the support is permissible without unduly stressing the system.

The ISI programs outlined in the attached tabulations have been developed as a result of a design review. Should certain ASME Section XI Code requirements be discovered to be impractical due to unforeseen reasons during the process of performing inspections or tests, relief will be requested from the specific Section XI Code requirement at that time.

Radiation levels in certain areas or of certain components may be found to prohibit the access for operators or examiners to perform the examinations or tests described in this program. If radiation levels cannot be reduced and access is still restricted by considerations of compliance with the requirements of Regulatory Guides 8.8 and 8.10, relief will be requested from the specific Section XI Code requirements and alternative examination requirements will be proposed.

1.11 AUGMENTED INSPECTIONS

The NRC has required certain augmented inspections as added assurance of structural reliability. The areas of interest and the examinations to be performed are as follows:

A. Reactor vessel examinations will be performed in accordance with Alabama Power Company's "Augmented Reactor Vessel Examination Program" dated 10/6/83, which was developed in response to Generic Letter 83-15 and Regulatory Guide 1.150, Revision 1.

B. The reactor coolant pump fly wheel will be inspected in accordance with plant Technical Specification 4.4.11.2 and Regulatory Guide 1.14.

C. The steam generator tubing will be inspected in accordance with plant Technical Specification 4.4.6 and Regulatory Guide 1.83, Rev. 1.

D. The main steam lines will be inspected in accordance with plant Technical Specification 4.4.11.3 and Branch Technical positions APCSB-3-1 and MEB-3-1.

1.12 CODE CASES

Code cases listed in item 13 of Section 7.1 of this program which are provided in Regulatory Guide 1.147 will be used by Alabama Power Company as necessary. All other code cases will be used on a case-by-case basis.

C-A, PRESSURE RETAINING WELDS IN PRESSURE VESSELS

Item No.	Parts Examined	Examination Requirements/ Figure No.	Examination Method	Acceptance Standard	Extent and Frequency of Examination[3] & Second Interval	Relief Request	Comments
	Letdown Heat Exchanger (tube side)						
C1.10	Shell-to Flange Circumferential	IWC-2500-1	Vol.	IWC-3000	Welds' at gross structural discontinuity[2] only.	-	-
C1.20	Head-to Shell Circumferential	IWC-2500-1	Vol.	IWC-3000	Head-to-shell weld'.		-
C1.30	Tubesheet-to-Shell	IWC-2500-2	N/A	N/A	N/A	-	N/A to FNP
	Excess Letdown Heat Exchanger (tube side)						
C1.10	Head-to-Flange Circumferential	IWC-2500-1	Vol.	IWC-3000	Welds' at gross structural discontinuity[2] only.	-	-
C1.20	Head Circumferential	IWC-2500-1	N/A	N/A	N/A	-	N/A to FNP
C1.30	Tubesheet-to-Shell	IWC-2500-1	N/A	N/A	N/A	-	N/A to FNP
	Regenerative Heat Exchanger (tube side)						
C1.10	Shell Circumferential	IWC-2500-1	N/A	N/A	N/A	-	N/A to FNP
C1.20	Head-to-Shell Circumferential (6)	IWC-2500-1	Vol. Sur.[5]	IWC-3000	Head-to-Shell Weld'.	RR-18	-
C1.30	Shell-to-Tubesheet (6)	IWC-2500-2	Vol. Sur.[5]	IWC-3000	Tubesheet-to-shell weld'.	RR-18	-
	Residual Heat Exchangers - 2 (tube side)						
C1.10	Shell-to Flange Circumferential	IWC-2500-1	Vol.	IWC-3000	Welds' at gross structural discontinuity[2] only.	-	-
C1.20	Head-to-Shell Circumferential	IWC-2500-1	Vol.	IWC-3000	Head-to-shell weld'.	-	-
C1.30	Tubesheet-to-Shell	IWC-2500-2	N/A	N/A	N/A	-	N/A to FNP
	Seal Water Return Filter						
C1.10	Cover Weldment-to-Shell Circumferential	IWC-2500-1	Sur.[5] VT-1[5]	IWC-3000	Welds' at gross structural discontinuity[2] only.	RR-19	-

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

Item No.	Parts Examined	Test and Examination Requirements	Examination Method	Acceptance Standard	Extent and Frequency of Examination: Second Interval	Relief Request	Comments
	Auxiliary Steam System[1]						
D2.10	Piping	IWA-5000/ IWD-5222[5]	VT-2	No Leakage	Pressure retaining boundary[2]	-	Note 6 Each period
		IWA-5000/ IWD-5223[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-38	Note 6
	Service Water System[1]						
D2.10	Service Water Pumps (5)	IWA-5000/ IWD-5222[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-31	Note 6 Each period
		IWA-5000/ IWD-5223[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-31, 33	Note 6
D2.10	Service Water Strainers (2) -2 inch size	IWA-5000/ IWD-5222[5]	VT-2	No Leakage	Pressure retaining boundary[2]	-	Note 6 Each period
		IWA-5000/ IWD-5223[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-33	Note 6
D2.10	Service Water Strainers (2) -42 inch size	IWA-5000/ IWD-5222[5]	VT-2	No Leakage	Pressure retaining boundary[2]	-	Note 6 Each period
		IWA-5000/ IWD-5223[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-33	Note 6

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

Item No.	Parts Examined	Test and Examination Requirements	Examination Method	Acceptance Standard	Extent and Frequency of Examination: Second Interval	Relief Request	Comments
	Component Cooling Water[1] (CCW) (continued)						
D2.10	CCW Heat Exchangers (3) - shell side	IWA-5000/ IWD-5222[5]	VT-2	No Leakage	Pressure retaining boundary[2]	-	Note 6 Each period
		IWA-5000/ IWD-5223[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-33	Note 6
D2.10	CCW Surge Tank	IWA-5000/ IWD-5222[5]	VT-2	No Leakage	Pressure retaining boundary[2]	-	Note 6 Each period
		IWA-5000/ IWD-5223[5]	VT-2	No Leakage	Pressure retaining boundary[2]	-	Note 6
D2.10	CVCS Letdown HX - shell side	IWA-5000/ IWD-5222[5]	VT-2	No Leakage	Pressure retaining boundary[2]	-	Note 6 Each period
		IWA-5000/ IWD-5223[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-33	Note 6
D2.10	CVCS Seal Water HX. - shell side	IWA-5000/ IWD-5222[5]	VT-2	No Leakage	Pressure retaining boundary[2]	-	Note 6 Each period
		IWA-5000/ IWD-5223[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-33	Note 6
D2.10	RHR HX. (2) - shell side	IWA-5000/ IWD-5222[5]	VT-2	No Leakage	Pressure retaining boundary[2]	-	Note 6 Each period
		IWA-5000/ IWD-5223[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-33	Note 6

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

Item No.	Parts Examined	Test and Examination Requirements	Examination Method	Acceptance Standard	Extent and Frequency of Examination: Second Interval	Relief Request	Comments
	Spent-fuel Pool Cooling						
D3.10	Spent-fuel Pool HX. (2) - tube side	IWA-5000/ IWD-5221[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-44	Note 6 Each period
		IWA-5000/ IWD-5223[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-44	Note 6
D3.10	Spent-fuel Pool Pumps (2)	IWA-5000/ IWD-5221[5]	VT-2	No Leakage	Pressure retaining boundary[2]	-	Note 6 Each period
		IWA-5000/ IWD-5223[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-33	Note 6
D3.10	Piping	IWA-5000/ IWD-5221[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-32	Note 6 Each period
		IWA-5000/ IWD-5223[5]	VT-2	No Leakage	Pressure retaining boundary[2]	RR-32, 33	Note 6
D3.20	Integral Attachments-Component Supports and Restraints[3]	Figure IWD-2500-1	VT-3	IWD-3000	Integral attachment	-	Note 7
D3.30	Integral Attachments-Mechanical and Hydraulic Snubbers[3]	Figure IWD-2500-1	VT-3	IWD-3000	Integral attachment	-	Note 7
D3.40	Integral Attachments-Spring Type Supports[3]	Figure IWD-2500-1	VT-3	IWD-3000	Integral attachment	-	Note 7
D3.50	Integral Attachments-Constant Load Type Supports[3]	Figure IWD-2500-1	VT-3	IWD-3000	Integral attachment	-	Note 7

6.0 RELIEF REQUESTS

FNP-1

The following relief requests are applicable to Farley Nuclear Plant Unit 1 second 10-year ISI, and include all pertinent examination areas and details where the requirements of ASME Code, Section XI, 1983 Edition with Addenda through Summer 1983, could not be satisfied completely.

Relief Request No.	Examination Area
RR-1	Material requirements for calibration blocks used for ultrasonic examination of heavy wall vessels.
RR-2	Notch location requirements for calibration blocks used for ultrasonic examination of heavy wall vessels.
RR-3	Hole location requirements for calibration blocks used for ultrasonic examination of heavy wall vessels.
RR-4	Thickness differences between the calibration blocks used for examination of piping systems and thin wall vessels and the components to be examined.
RR-5	Curvature differences between the calibration blocks used for examination of piping systems and thin wall vessels and the components to be examined.
RR-6	Deleted
RR-7	Dimensional requirements for calibration notches placed on calibration blocks used for ultrasonic examination of piping systems and thin wall vessels.
RR-8	Volumetric examination of the reactor vessel bottom head meridional weld.
RR-9	Volumetric examination of nozzle-to-vessel welds in the pressurizer.
RR-10	Volumetric examination of nozzle-to-safe end welds in steam generators.

RELIEF REQUESTS

FNP-1

Relief Request No.	Examination Area
RR-24	Deleted
RR-25	Hydrostatic test for the Class 2 reactor vessel flange seal leakoff line (line No. CCB-36).
RR-26	Hydrostatic testing of portions of Class 2 piping systems isolated from the test boundary by closed check valves.
RR-27	Hydrostatic test for Class 2 waste gas drain filter line to volume control tank (line No. HCB-92).
RR-28	Volumetric examination of the nozzle inside radius section of the steam outlet nozzle on steam generators.
RR-29	Hydrostatic testing of boron injection recirculation discharge piping (line No. CCB-62).
RR-30	Hydrostatic testing of Class 2 portion of the steam generator (4-hour hold time).
RR-31	Visual (VT-2) examination for leakage of Class 3 service water pumps.
RR-32	Visual (VT-2) examination for leakage in encased piping in spent fuel pool cooling system.
RR-33	Hydrostatic testing of portions of Class 3 piping and components which operate continuously during all modes of plant operation.
RR-34	Hydrostatic testing of Class 3 spray additive lines in containment spray system.

REQUESTS

FNP-1

Relief Request No.	Examination Area
RR-35	Hydrostatic testing of Class 3 buried piping in the service water system.
RR-36	Visual (VT-2) examination of the tubes in the Class 3 component cooling water heat exchangers.
RR-37	Visual (VT-2) examination of condenser coils (tubes) in Class 3 coolers.
RR-38	Hydrostatic testing of Class 3 portions of auxiliary steam piping.
RR-39	Hydrostatic testing of Class 3 auxiliary feedwater pump minimum flow piping.
RR-40	Hydrostatic testing of all Class 2 branch pipe lines from VCT to first valve.
RR-41	Break away drag test for hydraulic snubbers.
RR-42	Additional sample testing requirements for snubbers.
RR-43	Hydrostatic testing of Class 2 portions of the RCS head vent lines.
RR-44	Operational monitoring of the Class 3 spend fuel pool cooling heat exchangers.
RR-45	Deleted
RR-46	Schedule adjustment for eight (8) system hydrostatic tests.

RELIEF REQUESTS

FNP-1

RR-1

Component or Relief Area:

Relief from the material requirements for calibration blocks used to perform ultrasonic examination of the following:

APR-6:	Steam generator channel head-to-tubesheet welds.
APR-7:	Boron injection tank head-to-shell circumferential welds and nozzle-to-head welds.
ALA-RV-1:	Reactor vessel lower head-to-lower shell weld and all lower head welds. Boron injection tank head-to-shell circumferential welds.
ALA-RV-3:	Reactor vessel top head welds.

Requirement from which Relief is Requested:

Section XI, 1983 Edition with Addenda through Summer 1983, paragraph IWA-2232 requires that ultrasonic examination of vessel welds in ferritic materials greater than 2 in. in thickness be performed in accordance with Article 4, Section V. Paragraph T-434.1.1(3), Article 4, requires that the material from which calibration blocks are fabricated be of the same material specification, product form, and heat treatment as one of the materials being joined.

Basis for Relief:

During fabrication of the Farley Unit 2 nuclear steam supply system vessels, the calibration blocks used to perform examinations by the vessel manufacturer were fabricated to the requirements of American Society of Mechanical Engineers (ASME) Section III. When ASME Section XI was issued for inservice inspection, the new requirements for vessel calibration blocks rendered the existing blocks unacceptable for use. The original blocks had to be replaced but some vessel materials were no longer available. The vessel calibration blocks had to be refabricated to the Section XI requirements applicable at that time.

RELIEF REQUEST

FNP-1

RR-2

Component or Relief Area:

Relief from notch location requirements for calibration blocks used to perform the following:

ALA-RV-1: Boron injection tank head-to-shell circumferential welds. Reactor vessel lower head-to-lower shell weld and all lower head welds.

ALA-RV-3: Reactor vessel shell welds, shell-to-nozzle welds, and top head welds.

ALA-RV-5: Reactor vessel flange-to-shell weld.

Requirement from which Relief is Requested:

Section XI, 1983 Edition with Addenda through Summer 1983, paragraph IWA-2232, requires that ultrasonic examination of vessel welds in ferritic materials greater than 2 in. in thickness be conducted in accordance with Article 4, Section V, 1983 Edition. Figure T-434.1, Article 4, requires that the minimum distance from the ends of the 2 in. long 2-percent T notches to the edges of the block be 3 in.

Basis for Relief:

Figure T-546-1, Article 5, Section V, 1983 Edition, is a similar calibration block; however, the clearance required from the ends of the 2-percent notches is 2 in. instead of the 3 in. required by Figure T-434.1, Article 4. Experience performing calibrations using these blocks has proven fully satisfactory.

Alternate Examination:

The above calibration blocks are in compliance with the clearance dimensions required for notches by Figure T-546.1, Article 5, Section V, 1983 Edition.

RELIEF REQUEST

FNP-1

RR-3

Component or Relief Area:

Relief from hole location requirements for calibration blocks used to perform the following:

ALA-RV-1: Reactor vessel lower head-to-lower shell weld, all lower head welds and boron injection tank head circumferential welds.

ALA-RV-5: Reactor vessel flange-to-shell weld.

APR-5: Steam generator stub barrel-to-upper tubesheet weld, lower shell-to-stud barrel weld, transition cone-to-lower shell weld, upper shell-to-transition cone weld, and feedwater nozzle-to-upper shell weld.

APR-7: Pressurizer top head-to-nozzle welds, top head-to-upper shell, upper-to-middle shell weld, lower-to-bottom head weld, all longitudinal shell welds, and bottom head-to-nozzle weld.

Requirement from which Relief is Requested:

Section XI, 1983 Edition with Addenda through Summer 1983, paragraph IWA-2232 requires that ultrasonic examination of vessel welds in ferritic materials greater than 2 inches in thickness be conducted in accordance with Article 4, Section V, 1983 Edition. Figure T-434.1 of Article 4 requires the aligned side-drilled holes to be located a minimum distance of T/2 from the end of the block. The aligned holes in ALA-RV-1 and ALA-RV-5 are .25 and .50 inches less than the required distance, respectively. The non-aligned holes are to be located a minimum of 1.5 inches from the end of the block. The non-aligned holes on ALA-RV-1, APR-5 and APR-7 are .25, .625 and .625 inches less than the required distance, respectively.

Basis for Relief:

Experience performing calibrations using the blocks mentioned above has proven fully satisfactory.

Alternate Examination:

None; the calibration blocks are acceptable for use as is.

RELIEF REQUEST

FNP-1

RR-4

Component or Relief Area:

Thickness differences between calibration blocks used to perform ultrasonic examinations and the following piping systems and vessels less than or equal to 2 inches in thickness:

ALA-5:	Excess Letdown Heat Exchanger
ALA-RV-7:	Reactor Coolant Piping
ALA-24:	Main Steam Piping
ALA-25:	Feedwater Piping
ALA-31	Volume Control Tank

Requirement from which Relief is Requested:

Section XI, 1983 Edition with Addenda through Summer 1983 (piping systems), Code Case N-435-1 (which references the Winter 1985 Addenda for thin wall vessels), Appendix III, paragraph III-3410 requires that the basic calibration block shall be made from material of the same nominal wall thickness or pipe schedule as the pipe to be examined.

Basis for Relief:

The design of the existing calibration blocks used for piping and thin-wall vessels was done under the provisions of Section V, 1974 Edition with Addenda through Summer 1975. Thickness differences between the above calibration blocks and the components to be examined are inconsequential and would in most cases produce conservative examination results. Fabrication of new calibration blocks solely for the purpose of achieving exact thickness congruity with the component will not improve examination quality.

Alternate Examination:

Code Case N-461, Alternate Rules for Piping Calibration Block Thickness will be incorporated for use of the above calibration blocks with the following stipulations:

a. Ultrasonic (UT) thickness measurements and weld joint measurements of the pipe or component must be available to the UT inspector prior to performing the angle beam examination. It is acceptable to use measurements from a previous inspection.

RR-4 (Cont'd)

b. The 10-year ISI plan and current outage plan shall annotate components/calibration blocks which require thickness tolerances per Code Case N-461.

c. In addition, all UT reflectors 50% distance-amplitude correction (DAC) and above must also be recorded and their position in the weld joint plotted to determine if the reflectors are relevant indications.

RELIEF REQUEST

FNP-1

RR-5

Component or Relief Area:

Curvature differences between calibration blocks used to perform ultrasonic examinations and the following piping systems and vessels less than or equal to 2 inches in thickness:

ALA-5:	Excess Letdown Heat Exchanger
ALA-RV-7:	Reactor Coolant Piping
ALA-21:	Pressurizer Skirt
ALA-23:	Mainsteam Piping
ALA-25:	Feedwater Piping
ALA-31:	Letdown Heat Exchanger Volume Control Tank
ALA-32:	Residual Heat Exchanger
ALA/APR-33:	Reactor Coolant Piping

Requirement from which Relief is Requested:

Section XI, 1983 Edition with Addenda through Summer 1983 (piping systems), Code Case N-435-1 (which references the Winter 1985 Addenda for thin wall vessels), Appendix III, paragraph III-3410 requires that the basic calibration block shall be the same nominal diameter as the pipe to be examined.

Basis for Relief:

The design of the existing calibration blocks used for piping and thin-wall vessels was done under the provisions of Section V, 1974 Edition with Addenda through Summer 1975. Curvature differences between the above calibration blocks and the components to be examined are inconsequential and would in most cases produce conservative examination results. Fabrication of new calibration blocks solely for the purpose of achieving exact curvature congruity with the component will not improve examination quality.

Alternate Examination:

The above calibration blocks are in compliance with the curvature tolerances between the blocks and the test part as required by Section V, 1983 Edition with Addenda through Summer 1983, paragraph T-543.3.

RELIEF REQUEST

FNP-1

RR-6

DELETED

(Not Required)

RELIEF REQUEST

FNP-1

RR-7

Component or Relief Area:

Dimensional requirements for calibration notches placed in ultrasonic calibration blocks used for piping and vessels less than or equal to 2 inches in thickness.

ALA-21
ALA-23
ALA-26
ALA-28

Requirement from Which Relief is Requested:

Section XI, 1983 Edition with Addenda through Summer 1983 (piping systems), Code Case N-435-1 (which references the Winter 1985 Addenda for thin wall vessels), Appendix III, paragraph III-3430, requires that basic calibration blocks shall contain notches that are at least 1.0 inches long and $0.104t-0.009t^2$ + 10%/-20% in depth.

Basis for Relief:

ALA-21
&
ALA-23: The notch depth is at 2% and should be 10%.

ALA-26: The notch is .125 in. under the required length of 1.0 inches.

ALA-28: The notch is .012 in. less than the -20% tolerance requirement for depth.

The only possible consequences of these discrepancies is that the sensitivity level of the ultrasonic instrument would be slightly higher than required, resulting in a more critical examination. Correcting these conditions on any of the above blocks would not be prudent and would be of questionable value when considering possible damage to the blocks by subjecting them to additional machining.

Alternate Examination:

None; all blocks are acceptable for use as is.

RELIEF REQUEST

FNP-1

RR-8

Component or Relief Area:	Volumetric examination of the pressure retaining reactor vessel lower head peel segment meridional weld. Reference drawings ALA1-1100B, weld No. 9 through 14, and D-351114, sheet 1 of 3.
Requirement from which Relief is Requested:	Item No. B1.22, Category B-A, Table IWB-2500-1 of ASME Section XI, requires a volumetric examination of one of the meridional welds during successive inspection intervals. Applicable examination volume is shown on Figure IWB-2500-3, and includes essentially 100 percent of the weld length.
Basis for Relief:	Incore instrumentation housing penetrating the vessel bottom head limits the coverage of the required volume and length of the weld.
Alternate Examination:	None, manual ultrasonic examination will be performed from the outside of the vessel to the maximum extent on a best effort basis.

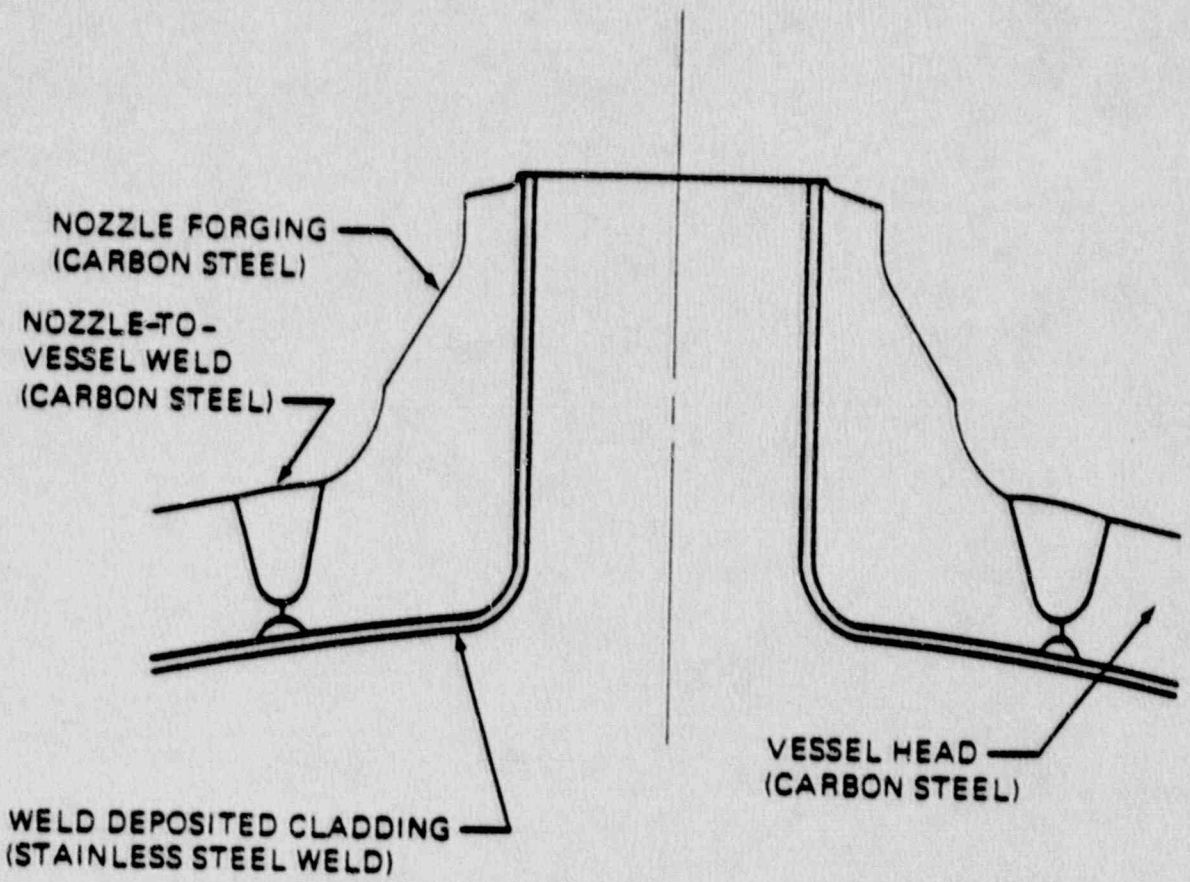
RELIEF REQUEST

FNP-1

RR-9

Component or Relief Area:	Volumetric examination of all nozzle-to-vessel welds in the pressurizer. Reference drawings ALA1-2100A, weld Nos. 9 through 14, and D-351114, sheet 2 of 3.
Requirement from which Relief is Requested:	Item No. B3.110, Category B-D, Table IWB-2500-1 of ASME Section XI requires a volumetric examination of the nozzle-to-vessel weld. The applicable examination volume is shown in Figure IWB-2500-7(b) and includes 100 percent of the weld length.
Basis for Relief:	There is unrestricted access to perform examination of the required volume of both weld and base metal from the head side of these welds; however, the geometric configuration of all six nozzles (Attachment 9-1) prevents ultrasonic examination from being performed from the nozzle side of the weld to the extent required. While the required volume of weld metal can be examined, only approximately 25% of the base metal on the nozzle side of the weld can be examined.
Alternate Examination:	All these welds will receive a surface examination of the areas not scanned by the ultrasonic method.

RR-9
ATTACHMENT 9-1



PRESSURIZER NOZZLE-TO-VESSEL WELD CONFIGURATION

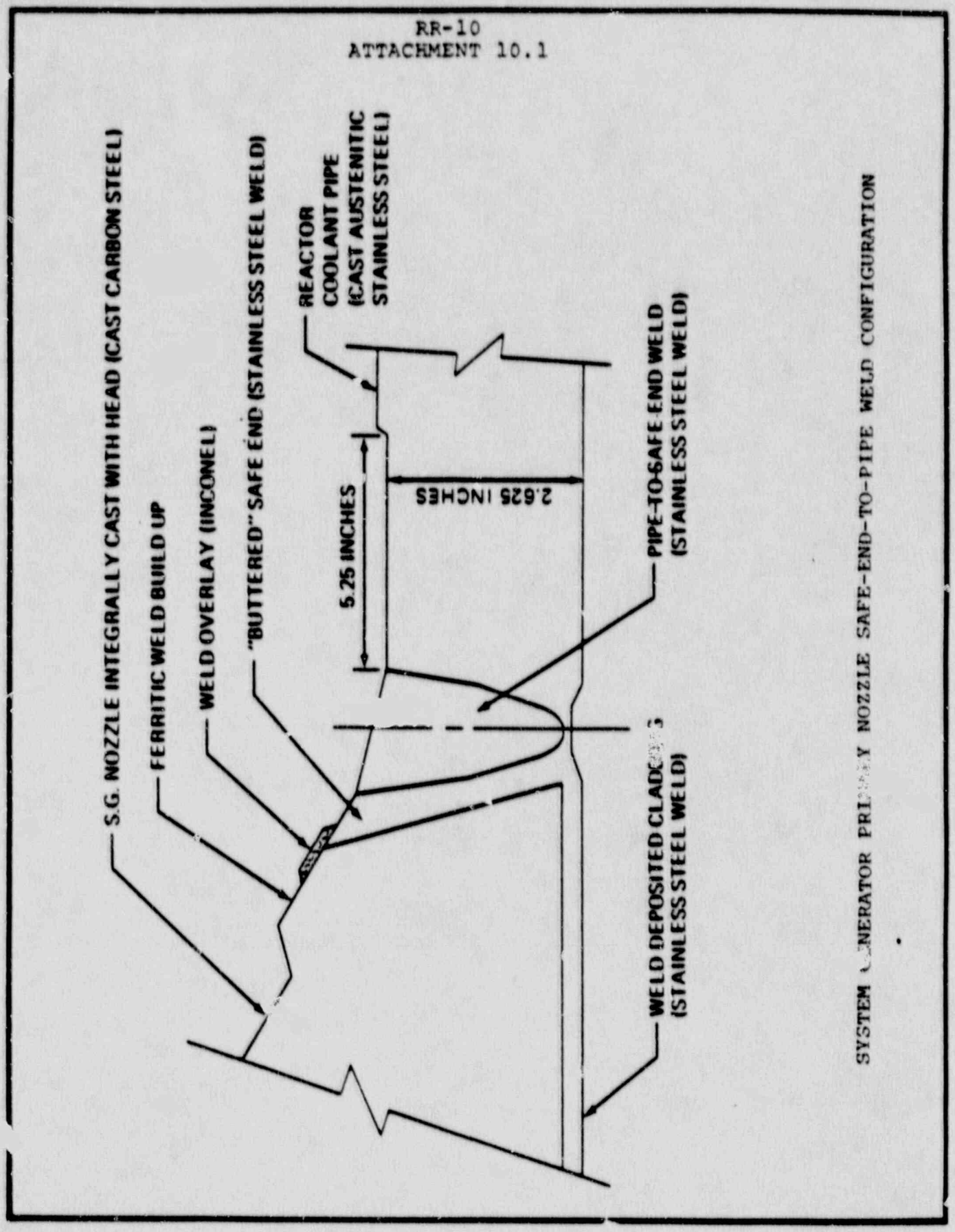
RELIEF REQUEST

FNP-1

RR-10

Component or Relief Area:	Volumetric examination of nozzle-to-pipe safe-end welds in all steam generators (primary side). Reference drawings ALA1-4100, ALA1-4200, and ALA1-4300, weld Nos. 4DM and 5DM, and D351114, sheet 1 of 3.
Requirement from which Relief is Requested:	Item No. B5.70, Category B-F, Table IWB-2500-1 of ASME Section XI requires a volumetric examination of nozzle-to-safe-end butt welds in the steam generator. Applicable examination volume is shown in Figure IWB-2500-8 and includes 100 percent of the weld length.
Basis for Relief:	The configuration of the steam generator nozzle-to-safe-end welds is shown in Attachment 10-1. Examination of these welds is limited both by nozzle geometry and the presence of a weld-deposited clad overlay on the safe-end nozzle interface. Ultrasonic examinations can be performed from the pipe side and the weld surface, but are severely limited from the nozzle side by the rough, as-cast surface and the clad overlay. Coverage of approximately 90 percent of the required volume is achieved from the pipe side of the weld.
Alternate Examination:	Surface examinations will be performed on essentially 100 percent of the required examination area. Also, ultrasonic examinations will be performed from both the pipe and weld surfaces as allowed by T-532 of Section V. All of the weld metal, including the weld root, will be inspected.

RR-10
ATTACHMENT 10.1



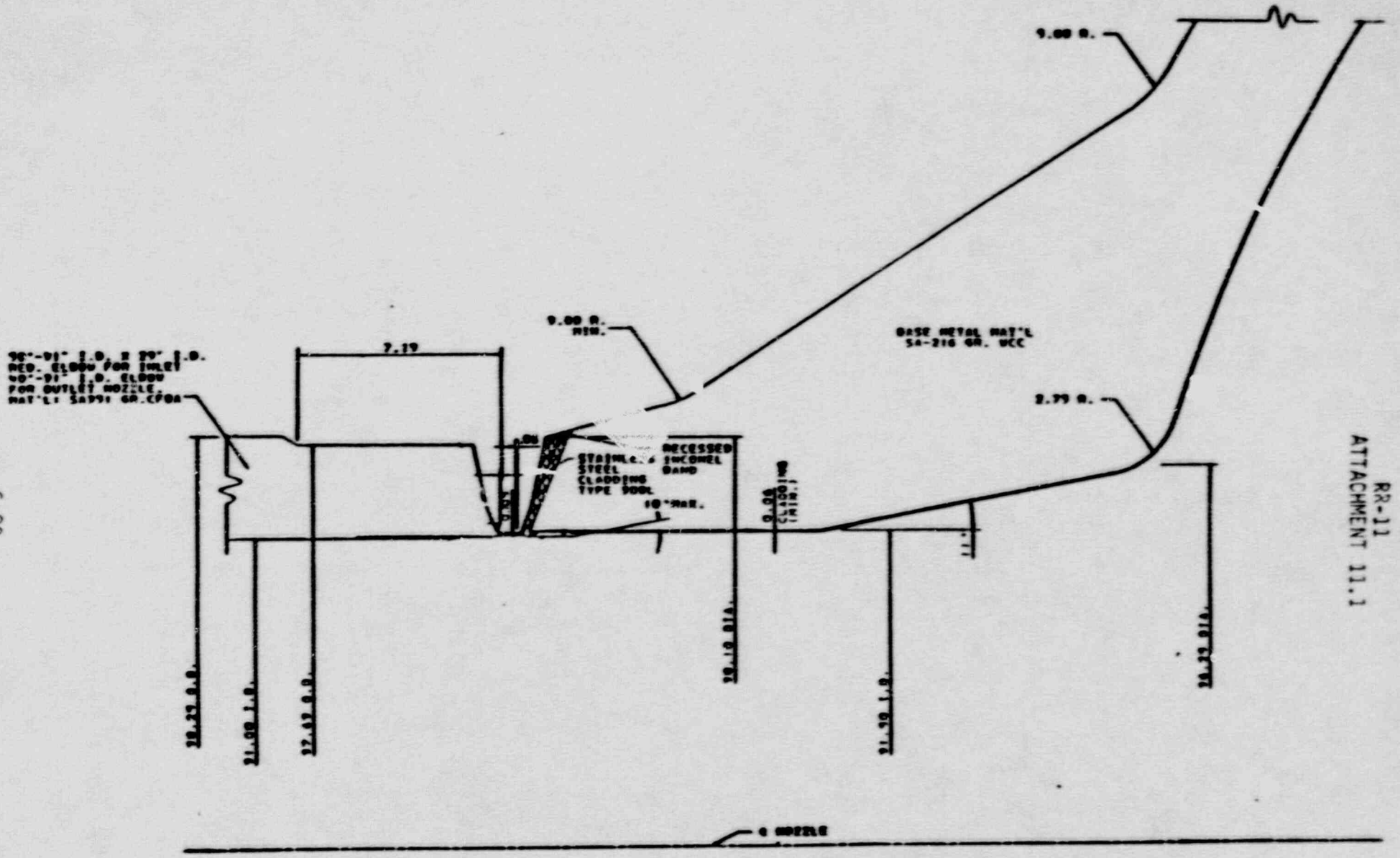
SYSTEM GENERATOR PRIMARY NOZZLE SAFE-END-TO-PIPE WELD CONFIGURATION

RELIEF REQUEST

FNP-1

RR-11

Component or Relief Area:	Volumetric examination of the nozzle inner radius section for steam generator inlet and outlet nozzles. Reference drawings ALA1-3100, ALA1-3200, and ALA1-3300, steam generators 1A, 1B, and 1C, and D351114, sheet 1 of 3.
Requirement from which Relief is Requested:	ASME Code Item No. B3.140, Category B-D, requires volumetric examination of the nozzle inside-radius section for steam generator nozzles. Figure IWB-2500-7 shows the applicable examination volume. Relief is requested from performing this examination for the inlet and outlet nozzles on all steam generators.
Basis for Relief:	The steam generator primary side nozzles are integrally cast as part of the channel head; therefore, no welds exist which require volumetric examination. The steam generator nozzle inner radiused section cannot be volumetrically examined from the outside of the nozzle or channel head because the rough, as-cast contact surface is not suitable for ultrasonic coupling and the geometrical configuration requires an excessively long test metal distance resulting in high ultrasonic attenuation. The areas inside of the nozzles and channel head are covered with cladding in the "as-welded" condition; therefore, meaningful volumetric examination cannot be performed from the as-welded surface. Even with proper preparation of the inside surface for volumetric examination, an adequate examination of the area of interest (base metal just below the cladding) could not be achieved due to the resulting ultrasonic response at the clad-to-base metal interface.
Alternate Examination:	The inside surface of each steam generator primary side nozzle inner radiused section will be visually examined. The examination area will include the inner radius surface region shown in Section XI, Figure IWB-2500-7, to the extent practical.



STEAM GENERATOR PRIMARY
INLET-OUTLET NOZZLE SECTION

RR-11
ATTACHMENT 11.1

RELIEF REQUEST

FNP-1

RR-12

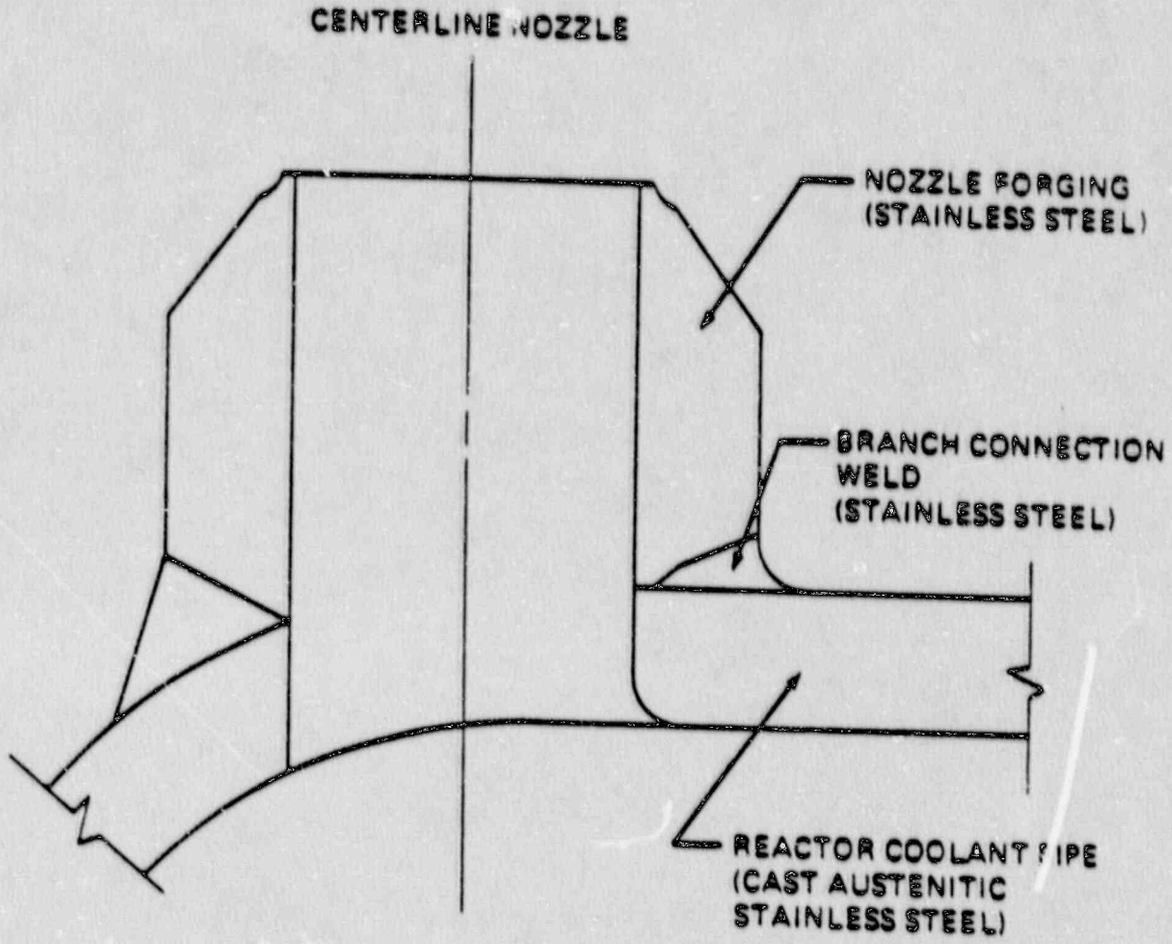
Component or Relief Area:	Delete VT-4 visual examination method and examination requirement and redefine VT-3 visual examination method in accordance with Paragraph IWA-2213 of ASME Section XI, 1986 Edition.
Requirement from which Relief is Requested:	Item No. F3.50, Category F-C, Table IWF-2500-1 and paragraph IWA-2214 of ASME Section XI, 1983 Edition, require that VT-4 visual examination shall be conducted to determine conditions relating to the operability of components such as snubbers and spring loaded/constant weight hangers. Also VT-4 testing confirms functional adequacy, verification of the setting, or freedom of motion, which may require operability testing.
Basis for Relief:	Operability testing was inapproiately included in VT-4 as an examination method. Also, paragraph IWA-2214(b) from the 1983 Section XI code is inconsistent with industry visual examination practices. An inspector does not perform bench testing of snubbers/constant load/spring type supports. These activities are performed by maintenance technicians. The 1986 Edition of ASME Section XI has deleted VT-4 examination altogether and has redefined VT-3 to include examinations for conditions that could affect operability or functional adequacy of snubbers, and constant load and spring type supports.
Alternate Examination:	None. Operability tests shall be performed in accordance with the Farley Technical Specifications.

FNP-1

RR-13

Component or Relief Area:	Volumetric examination of pressure retaining branch pipe connection welds in Class 1 piping. Attachment 13-2 lists all affected welds. Reference drawing D351114, sheet 1 of 3.
Requirement from which Relief is Requested:	Item No. B9.31, Category B-J, Table IWB-2500-1 of ASME Section XI, requires volumetric examination of branch pipe connection welds 4 in. nominal pipe size and larger. Applicable examination volumes are shown in Figures IWB-2500-9, -10, and -11 and include 100 percent of the weld length.
Basis for Relief:	The geometric configuration of these welds (see Attachment 13-1) prevent ultrasonic examinations from being performed from the weld surfaces. Attachment 13-2 describes the location of those limited areas and the approximate examination coverage.
Alternate Examination:	None; however, the surface examinations as required by the Code will also be performed on these welds.

RR-13
ATTACHMENT 13.1



BRANCH NOZZLE CONNECTION WELD

FNP-1

RR-13

ATTACHMENT 13-2

Category B-J, Branch Pipe Connection Welds
with Exam Limitations

Configurations	Dwg. No.	Weld No.	Examinations Extent
Hot leg loop #1 6 in. branch connection	ALA1-4100	15 BC	80%
Hot leg loop #1 12 in. branch connection	ALA1-4100	16 BC	80%
Cold leg loop #1 6 in. branch connection	ALA1-4100	20 BC	80%
Cold leg loop #1 4 in. branch connection	ALA1-4100	21 BC	80%
Cold leg loop #1 12 in. branch connection	ALA1-4100	22 BC	80%
Hot leg loop #2 6 in. branch connection	ALA1-4200	15 BC	80%
Hot leg loop #2 14 in. branch connection	ALA1-4200	16 BC	80%
Cold leg loop #2 4 in. branch connection	ALA1-4200	20 BC	80%
Cold leg loop #2 12 in. branch connection	ALA1-4200	21 BC	80%
Cold leg loop #2 6 in. branch connection	ALA1-4200	23 BC	80%
Hot leg loop #3 6 in. branch connection	ALA1-4300	15 BC	80%
Hot leg loop #3 12 in. branch connection	ALA1-4300	16 BC	80%
Cold leg loop #3 6 in. branch connection	ALA1-4300	20 BC	80%
Cold leg loop #3 12 in. branch connection	ALA1-4300	21 BC	80%

FNP-1

RR-14

Component or Relief Area:	Volumetric examination of the reactor vessel flange ligament areas. Reference drawing ALA1-1100A and ALA1-1300, Examination Identification No. L1, L25, L26, L27, L41, L42, L43, L57, L58, and D351114, sheet 1 of 3.
Requirement from which Relief is Requested:	Item No. B6.40, Category B-G-1, Table IWB-2500-1 of ASME Section XI, requires a volumetric examination of threads in reactor vessel flange stud holes. The applicable examination volume is shown in Figure IWB-2500-12.
Basis for Relief:	During the examination, these guide studs prevent the ultrasonic transducers mounted on the remote tool arm from accessing the ligaments around each guide stud as well as the ligaments between the stud holes on either side of the guide studs (numbers 1, 25, 27, 41, 43, and 57).
Alternate Examination:	None; however, the remaining 49 ligaments will be ultrasonically examined as required by the ASME Code, Section XI.

FNP-1

RR-15

Component or Relief Area:	Visual examination of reactor coolant pump internal pressure boundary surfaces. Reference drawing D351114, sheet 1 of 3.
Requirement from which Relief is Requested:	Item No. B12.20, Category B-L-2, Table IWB-2500-1 of ASME Section XI, requires a visual (VT-3) examination of Class 1 pump internal pressure boundary surfaces. This examination is limited to one pump in a group performing similar functions in a system.
Basis for Relief:	Disassembly of a reactor coolant pump for the visual examination during the inspection interval in the absence of required maintenance represents an unnecessary exposure to radiation and contamination and violates as-low-as-reasonably-achievable (ALARA) guidelines for occupational dose rates. In view of the cost in man-rem and in view of the minimal benefits obtained, we conclude that this code requirement does not provide sufficient benefits to justify the radiation exposure.
Alternate Examination:	The exterior of the RCP casing will be visually examined during the RCS hydrostatic pressure test as required by IWB-5000. A visual examination, not to exceed once per interval, will be performed on the internal pressure boundary surface of one RCP as required by Item B12.20, Category B-L-2, if maintenance or operational problems are encountered which require the removal and disassembly of the internals.

FNP-1

RR-16

Component or Relief Area:	Visual examination of the internal pressure boundary surfaces of Class 1 valves. See Attachment 16-1 for valves requiring this examination.
Requirement from which Relief is Requested:	Item No. 12.50, Category B-L-2, Table IWB-2500-1 of ASME Section XI, requires a visual (VT-3) examination of the internal pressure boundary surfaces of Class 1 valves exceeding 4 in. nominal pipe size. The examinations are limited to one valve within each group that are of the same constructional design and manufacturing method, and that perform similar functions in the system.
Basis for Relief:	Disassembly of these valves for visual examination during the inspection interval in the absence of required maintenance represents an unnecessary exposure to radiation and contamination and violates ALARA guidelines for occupational dose rates. In view of the cost in man-rem and in view of the minimal benefits obtained, we conclude that this code requirement does not provide sufficient benefits to justify the radiation exposure. In addition, the manufacturer of these valves neither recommends nor requires valve disassembly for the performance of routine maintenance or inspections.
Alternate Examination:	As required by Section XI, IWA-5000, the exterior of this valve body will be visually examined during the RCS hydrostatic test. A visual examination, not to exceed once per interval, will be performed on the internal pressure boundary surface of one valve in each group listed in Attachment 16-1 as required by Item B12.50 and Category B-M-2 if maintenance or operational problems are encountered which require disassembly and complete removal of the valve internals.

RR-16

ATTACHMENT 16-1

VALVE GROUPING

Group No.	Manufacturer	System	Valve No.	Description	Reference Dwg. No.
1	Copes-Vulcan	RHR	Q1E11V001A & B Q1E11V0016A & B	12 in. gate valve	D351118, sheet 1 of 1
2	Velan	RHR (Low head safety injection)	Q1E11V021A, B,& C Q1E11V051A, B,& C	6 in. check valve	D351115, sheets 1 of 4 and 2 of 4
3	Velan	High head safety injection	Q1E21V076A & B Q1E21V077A, B & C	6 in. check valve	D351115, sheet 1 of 4
4	Crosby	Pressurizer safety	Q1B13V031A, B & C	6 in. safety valve	D351114, sheet 2 of 3
5	Copes-Vulcan	Accumulator discharge	Q1E21V032A, B & C Q1E21V037A, B & C	12 in. check valve	D351115, sheet 2 of 4

NOTE:

One valve in each of the above groups is required to be examined.

RELIEF REQUEST

FNP-1

RR-17

Component or Relief Area:	Reference system for all welds and areas subject to surface or volumetric examination.
Requirement from which Relief is Requested:	IWA-2600 of ASME Section XI requires the establishment of a reference system for all welds and areas subject to surface or volumetric examination. This system shall permit identification of each weld, the location of each weld centerline, and marking at regular intervals along the length of each weld.
Basis for Relief:	To perform actual marking of welds in order to identify each weld centerline, length locations, etc., would require many manhours of radiation exposure. Many of the welds are insulated and as such many manhours of radiation exposure would be required to remove and reinstall insulation just to facilitate marking. Also many manhours of radiation exposure would be involved in marking the welds.
Alternate Examination:	Administrative controls which are detailed in procedures provide adequate instructions to ensure measurements are repeatable and that any indications can be accurately located.

RELIEF REQUEST

FNP-1

RR-18

Component or Relief Area:	Volumetric examination of pressure retaining welds in the regenerative heat exchanger. Reference drawings ALA2-3560, welds No. 1 through 12, and D-351116, sheet 1 of 4.
Requirement from which Relief is Requested:	Items No. C1.20 and C1.30, Category C-A, Table IWC-2500-1 of ASME Section XI, require volumetric examination of pressure vessel head circumferential welds and tube sheet-to-shell welds. The applicable examination volume is shown in Figures IWC-2500-1 and -2, and includes essentially 100 percent of the weld length.
Basis for Relief:	The regenerative heat exchanger shell is fabricated from centrifugally cast austenitic steel material which limits ultrasonic examination to the half-node technique. The geometric configuration of the weld surface and the location of adjacent nozzles and supports provide limitations to the extent of the examination coverage. Approximately 50 to 60 percent of the required volume can be examined.
Alternate Examination:	Ultrasonic examination will be performed to the maximum extent practical (which is approximately 50 to 60 percent) on a best effort basis. Surface examination of all accessible surfaces within the examination boundaries will also be performed to supplement volumetric examinations.

RELIEF REQUEST

FNP-1

RR-19

Component or Relief Area:

Volumetric examination of the pressure retaining welds in thin wall Class 2 pressure vessels. Affected areas are head-to-shell and flange-to-shell welds in the following:

- Seal water heat exchanger - reference drawings ALA2-3550 and D351116, sheet 2 of 4.
- Letdown reheat heat exchanger - reference drawings ALA2-3540 and D351117, sheet 1.
- Reactor coolant filter - reference drawings ALA2-2110 and D351116, sheet 2 of 4.
- Seal water return filter - reference drawings ALA2-2100 and D351116, sheet 2 of 4.

Requirement from which Relief is Requested:

Items No. C1.10 and C1.20, Category C-A, Table IWC-2500-1 of ASME Section XI, requires volumetric examination of pressure retaining welds in Class 2 pressure vessels. Applicable examination volumes are shown on Figures IWC-2500-1 and -2 and include essentially 100 percent of the weld length.

Basis for Relief:

The thickness of the materials utilized for the construction of these components (0.165 to 0.188 inches) is such that meaningful results could not be expected with ultrasonic examination.

Alternate Examination:

Welds on these components will be examined by surface and visual methods.

RELIEF REQUEST

FNP-1

RR-20

Component or Relief Area:	Surface examination of integrally welded attachments on charging pumps. Reference pump No. 1A, 1B, and 1C, drawings ALA2-5100, ALA2-5110, and ALA2-5120, and D351116, sheet 2 of 4.
Requirement from which Relief is Requested:	Item No. C3.30, Category C-C, Table IWC-2500-1 of ASME Section XI, requires a surface examination of 100 percent of the areas required by Figure IWC-2500-5 for each welded attachment of one charging pump.
Basis for Relief:	Due to the component configuration, location, and support design, approximately 20 percent of each integrally welded attachment is inaccessible for examination.
Alternate Examination:	None; all accessible portions of welded attachments will receive a surface examination supplemented by a visual examination.

RELIEF REQUEST

FNP-1

RR-21

Component or Relief Area:	Hydrostatic testing of Class 2 containment pressure sensing lines. Reference drawings D351115, sheet 3 of 4, penetration no. 65, 73, 74, 75, 76, and 97.
Requirement from which Relief is Requested:	Item No. C7.40, Category C-H, Table IWC-2500-1 of ASME Section XI, requires a hydrostatic test for all Class 2 pressure retaining components once every 10-year inspection interval, in accordance with paragraph IWC-5222.
Basis for Relief:	These containment pressure sensing capillaries are filled with silicone oil and are sealed. There are no provisions to pressurize these lines with additional silicone oil to satisfy the ASME Section XI hydrostatic test requirements. However, a full range (0-65 psi for low pressure sensors and 0-225 psi for high pressure sensors) calibration is performed on these lines every 18 months to verify their accuracy and integrity, in accordance with Farley Surveillance Test Procedures STP-220.1 through 220.4 and STP-220.11, 220.12 (T.S. 4.3.3.8/6B). Any leakage from these pressure sensing lines during normal operation would result in instrument failure and would be corrected to maintain instrument operability.
Alternate Examination:	The calibration of these sensors will be performed in lieu of a hydrostatic or pressure test.

RELIEF REQUEST

FNP-1

RR-22

Component or Relief Area:

Hyrostatic testing of portions of Class 2 piping and interim components at reduced pressure.

The following portions of Class 2 piping are affected.

A. Chemical injection to main feedwater lines between valves Q1N25V002A, B, and C and main feedwater lines (line Nos. DCB-1A, DCB-1B and DCB-1C). Reference drawing D351102, Sheet 1 of 2.

B. Main feedwater lines from valves Q1N21V001A, B, and C to the steam generators (line No. DBB-1). Reference drawing D351123, Sheet 1 of 1.

C. Steam generator blowdown lines to valves Q1G24V003A, B, and C from the steam generators (line Nos. CBB-5, CBB-6, CBB-7, CBB-8, CBB-9, and CBB-10). Reference drawing D351122, Sheet 1 of 3.

D. Auxiliary feedwater piping from valves Q1N23V011A, B, and C to the main feedwater lines (line No. DBB-2). Reference drawing D351106, Sheet 1 of 1.

E. Charging pump discharge mini-flow piping from valves Q1E21V259A, B, and C up to valve Q1E21V265 (line No. CCB-18). Reference drawing D351116, Sheet 2 of 4.

Note: Items A thru D are nonisolable piping associated with the steam generators, secondary side. Testing at reduced holding time is addressed in relief request RR-30.

Requirement from which Relief is Requested:

Category C-H, Table IWC-2500-1 of ASME Section XI, requires a hydrostatic test of all Class 2 pressure retaining components once every 10-year inspection interval in accordance with paragraph IWC-5222.

FNP-1

RR-22 (Continued)

Basis for Relief: The portions of the Class 2 systems listed above cannot be isolated from lower pressure rated Class 2 piping. Performing the hydrostatic tests at the required pressure would result in overpressurizing the lower pressure rated Class 2 piping.

Alternate Examination: Visual examination for evidence of leakage will be conducted on the portions of Class 2 systems listed above while at the test pressure for the lowest pressure rated Class 2 piping.

RELIEF REQUEST

FNP-1

RR-23

Component or Relief Area:

Hydrostatic testing of portions of Class 2 components to the requirements of the connecting Class 1 piping. Affected portions are as follows:

A. Vents, drains, instrumentation lines, and branch connections off Class 1 lines (line No. CCB-27, CCB-33, CCB-34, CCB-38, CCB-39, CCB-40, CCB-41, CCB-42, CCB-43, CCB-44, CCB-46A, CCB-46B, CCB-46C, CCB-47A, CCB-47B, and CCB-47C). Reference drawings D351114, sheets 1 of 3, 2 of 3, 3 of 3, and D351107, sheet 1 of 3.

B. Pressurizer spray valves bypass lines (line No. CCB-57). Reference drawing D351114, sheet 2 of 3.

C. Sample lines off reactor coolant system (RCS) loops and pressurizer (line No. CCB-37, CCB-54, CCB-55, and CCB-56). Reference drawing D351114, sheets 1 of 3, 2 of 3, and D351107, sheet 2 of 3.

D. Boron injection tank discharge to RCS (cold legs) between valves Q1E21V004A and B, Q1E21V029, and Q1E21V062A, B, and C (line No. CCB-21 and CCB-50). Reference drawing D351115, sheet 1 of 4.

E. High-head safety injection (HHSI) pump discharge to RCS (cold legs) between valves Q1E21V063 and Q1E21V066A, B, and C (line No. CCB-22). Reference drawing D35115, sheet 1 of 4.

F. HHSI pump discharge to RCS (hot legs) between valves Q1E21V068 and Q1E21V078A, B, and C (line No. CCB-30). Reference drawing D351115, sheet 1 of 4.

G. HHSI pump discharge to RCS (hot legs) between valves Q1E21V072 and Q1E21V079A, B, and C (line No. CCB-31). Reference drawing D351115, sheet 1 of 4.

H. Branch lines connecting the accumulator discharge lines to the accumulator test line (line No. CCB-24, CCB-53, and CCB-54). Reference drawing D351115, sheet 2 of 4.

FNP-1

RR-23 (Continued)

I. Residual heat removal (RHR) pump discharge to RCS (hot legs) between valves Q1E21V044 and Q1E21V076A and B (line No. CCB-29). Reference drawing D351115, sheets 1 of 4 and 2 of 4.

J. RHR to RCS (cold legs) between valves Q1E21V023A and B and Q1E21V021A, B, and C (lines No. CCB-22 and CCB-32). Reference drawing D351115, sheets 1 of 4 and 2 of 4.

K. Alternate charging line between valves Q1E21V243 and Q1E21V113 (line No. CCB-9). Reference drawing D351116, sheet 1 of 4.

L. Normal charging line between valves (Q1E21V244 and Q1E21V112 (line No. CCB-10). Reference drawing D351116, sheet 1 of 4.

M. Normal charging line control valve bypass line between valves Q1E21V143 and Q1E21V112 (line No. CCB-45). Reference drawing D351116, sheet 1 of 4.

N. Reactor coolant pump No. 1 seal leakoff lines to valves Q1E21V589A, B, and C (line No. CCB-48A, CCB-48B, and CCB-48C). Reference drawing D351116, sheet 1 of 4.

O. Reactor pressure vessel (RPV) head vent line from Class 1 line to valves Q1B13HV-2 and Q1B13HV-4 (line No. CCB-63). Reference drawing D351114, sheet 1 of 3.

Requirement from which Relief is Requested: Category C-H, Table IWC-2500-1 of ASME Section XI requires a hydrostatic test for all Class 2 pressure retaining components once every 10-year inspection interval, in accordance with paragraph IWC-5222.

Basis for Relief: It is impractical to conduct a Class 2 hydrostatic test on the portion of the system listed where the only means of pressurizing the Class 2 system is through the Class 1 system or when the boundary between the two systems is a check valve arranged for flow from the Class 2 system to the Class 1 system.

FNP-1

RR-23 (Continued)

Alternate Examination: Visual examination for evidence of leakage will be conducted on these portions of systems in conjunction with the hydrostatic test performed on the adjoining Class 1 system.

DELETED

(Not Required)

FNP-1

RR-25

Component or Relief Area:	Hydrostatic test for the Class 2 pressure retaining reactor vessel flange seal leakoff line from the reactor vessel to valves Q1B13V019 and Q1B13V018 (line No. CCB-36). Reference drawing D351114, Sheet 1 of 3.
Requirement from which Relief is Requested:	Category C-H, Table IWC-2500-1 of ASME Section XI, requires a hydrostatic test for all Class 2 pressure retaining components once every 10-year inspection interval, in accordance with paragraph IWC-5222.
Basis for Relief:	Performance of a hydrostatic test for this system is impractical because pressurization of the flange seal leakoff line could potentially result in damage to the reactor vessel flange seals.
Alternate Examination:	For the reactor vessel flange seal leakoff line from the reactor vessel, the portion of Class 2 piping up to valves Q1B13V019 and Q1B13V018 will be visually examined during the Class 1 hydrostatic test.

RELIEF REQUEST

FNP-1

RR-26

Component or Relief Area:

Hydrostatic testing of portions of Class 2 piping systems isolated from the test boundary by closed check valves. Affected lines are as follows: Reference drawing D351116, Sheet 2 of 4.

A. Charging pump suction piping from the chemical mixing tank between valve Q1E21V186 and check valve Q1E21V187 (line No. HCB-11).

B. Hydrogen and nitrogen supply piping to the VCT from check valve Q1E21V201 to isolation valves Q1E21V202, Q1E21V583, and Q1G21V260 (line Nos. HCB-68 and HCB-99).

C. Charging pump suction piping from volume control tank between check valve Q1E21V211 and locked closed valve Q1E21V212 (Line No. 2" HCB-16).

D. Charging pump suction piping from boric acid blender between check valve Q1E21V210 and normally closed valve Q1E21V264 (line No. HCB-16).

Requirement from which Relief is Requested:

Category C-H, Table IWC-2500-1 of ASME Section XI, requires a hydrostatic test for all Class 2 pressure retaining components once every 10-year inspection interval in accordance with IWC-5222.

Basis for Relief:

Pressurization of the portions of system piping listed above cannot be assured due to the position of the check valves. The check valves listed prevent flow from the test fill point to the specified boundary valves.

Alternate Examination:

Portions of the above mentioned Class 2 piping will be visually examined during the Class 2 system functional test.

FNP-1

RR-27

Component or Relief Area:	Hydrostatic test for the Class 2 waste gas drain filter line to VCT from isolation valve Q1G22V249 through check valve Q1G22V248 (line No. HCB-92). Reference drawing D351119, sheet 5 of 7.
Requirement from which Relief is Requested:	Category C-H, Table IWC-2500-1 of ASME Section XI, requires a hydrostatic test of all Class 2 pressure retaining components once every 10-year inspection interval, in accordance with IWC-5222.
Basis for Relief:	Pressurization of this portion of the waste gas drain filter line would require check valve Q1G22V248 to hold the hydrostatic test pressure. Leakage through this valve could potentially result in overpressurization and subsequent damage of the waste gas filter.
Alternate Examination:	The portion of Class 2 piping between valve Q1G22V249 and check valve Q1G22V248 will be visually examined during the Class 2 system functional test.

RELIEF REQUEST

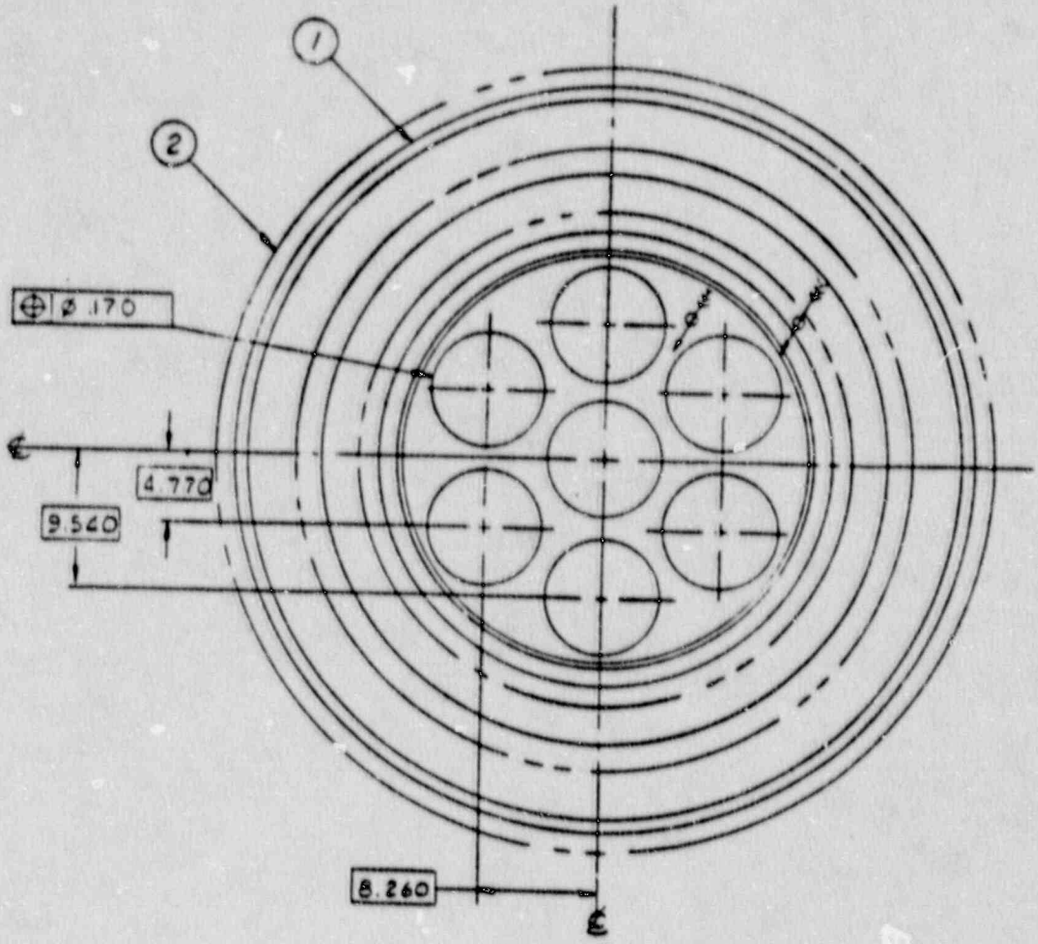
FNP-1

RR-28

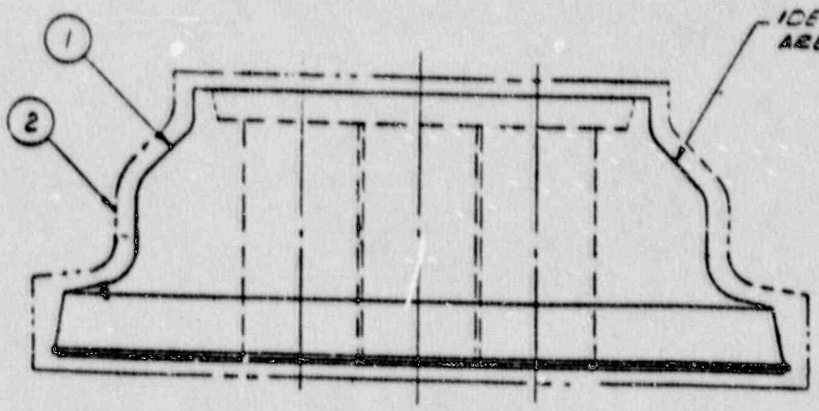
Component or Relief Area:	Volumetric examination of the nozzle inside radius section of the steam outlet nozzle on the Steam Generators. Reference drawing D-351110, sheet 1 of 2.
Requirement from which Relief is Requested:	Item No. C2.22, Category C-B, Table IWC-2500-1 of ASME Section XI, requires a volumetric examination of the nozzle inside radius section for nozzles in pressure-retaining vessels. The required examination volume is shown in Figure IWC-2500-4.
Basis for Relief:	The steam outlet nozzle is manufactured from a solid forging with seven (7) holes, each 8 1/2 inches in diameter, drilled through the forging (Attachment 28-1) to provide flow restriction. The geometry of this nozzle with the drilled flow restrictor holes does not have an inner radius and therefore no meaningful examination can be performed.
Alternate Examination:	None.

RR-28

Attachment 28-1



(DIMENSIONS GIVEN ARE TYPICAL ABOUT THE HORIZONTAL AND VERTICAL CENTER LINE)



RELIEF REQUEST

FNP-1

RR-29

Component or Relief Area:	Hydrostatic testing of Class 2 boron injection recirculation pump discharge piping between valves Q2E21V006A and B, Q2E21V005A and B, and the adjoining drain piping (line No. CCB-62). Reference drawing D-351115, sheet 1 of 4.
Requirement from which Relief is Requested:	Category C-H, Table IWC-2500-1 of ASME Section XI, requires a hydrostatic test for all Class 2 pressure retaining components once every 10-year inspection interval, in accordance with IWC-5222.
Basis for Relief:	Performance of a hydrostatic test at 3107 psi (1.25 Pd) on the portion of the system described above requires the use of check valves which are subject to leakage when used as a hydrostatic test boundary. These valves, which are welded in place, cannot be removed and replaced by blind flanges. Experience has shown that these 1- inch Kerotest check valves have some leakage when subjected to pressures in this range. Leakage past these valves could potentially pressurize and overstress the adjoining Class 3 piping which has a design pressure of 150 psi.
Alternate Examination:	These lines will be visually examined during operation as a part of the adjoining Class 3 system leakage test which will be performed at 150 psi.

RELIEF REQUEST

FNP-1

RR-30

Component or Relief Area: Hydrostatic testing of the Class 2 portion of the steam generators and associated piping. Reference drawings D351110, Sheet 1 of 2 and D351122, Sheet 1 of 3.

Note: Testing at reduced pressure for portions of this piping is addressed in relief request RR-22, items A thru D.

Requirement from which Relief is Requested: Item No. C7.10, Category C-H, Table IWC-2500-1 of ASME Section XI, requires a system hydrostatic test of Class 2 pressure retaining pressure vessel once every 10-year inspection interval, in accordance with IWC-5222. Also, paragraph IWA-5213(d) requires a 4-hour holding time for hydrotest of the insulated system.

Basis for Relief: In order to prevent undue stress on the steam generators, Westinghouse recommends that the hydrostatic tests of the secondary side of the steam generators be conducted at 1.25 P_d for a minimum of 10 minutes and a maximum of 30 minutes, and then reduced to operating pressure, 1.0 P_d, for the balance of the 4-hour holding period. The related Class 2 piping is hydrostatically tested along with the steam generator.

Alternate Examination: The Class 2 portions of the steam generator and related piping will be hydrostatically tested at 1.25 P_{sv} for a minimum of 10 minutes and a maximum of 30 minutes. The test pressure will then be reduced to 1.0 P_d for the remainder of the required 4-hour holding time.

RELIEF REQUEST

FNP-1

RR-31

Component or Relief Area:	Visual (VT-2) examination for leakage of Class 3 service water pumps. Reference drawings D-351130, sheet 1 of 11.
Requirement from which Relief is Requested:	Paragraph IWD-2510 and Table IWD-2500-1 of ASME Section XI require that all Class 3 pressure retaining components be subjected to visual examinations (VT-2) in conjunction with the system pressure tests required by paragraph IWD-5000.
Basis for Relief:	The service water pumps are vertical pumps and, due to component design, the pump and supporting column are submerged in an inaccessible wet pit. Only the motor and discharge nozzle are accessible above the operating deck.
Alternate Examination:	Visual inspection of the discharge nozzles will be performed while the pumps are operating. The pump casings will be visually inspected each time the pumps are removed for maintenance.

FNP-1

RR-32

Component or Relief Area:	Visual (VT-2) examination of Class 3 pressure retaining piping which is encased in concrete in the spent-fuel pool cooling system. Reference drawing D351120, Sheet 1 (line Nos. HCC-105, HCC-107, and HCC-108).
Requirement from which Relief is Requested:	Paragraph IWD-2510 and Table IWD-2500-1 of ASME Section XI require that all Class 3 pressure retaining components be subjected to visual examination (VT-2) in conjunction with the system pressure test requirements of IWD-5000.
Basis for Relief:	The design of the piping system does not provide any means to visually access the encased portions. Visual examination for leakage at ground level is also not possible.
Alternate Examination:	Integrity of the encased piping will be demonstrated during normal system functional testing.

RELIEF REQUEST

FNP-1

RR-33

Component or Relief Area:

Hydrostatic testing of portions of Class 3 piping and components in the following systems which operate continuously during all modes of plant operation:

- Service water (1) - reference drawings D-351128, sheet 1, D-351130, sheets 1, 2, and 3 of 11, and D-351104, sheets 1, 2, and 3.
  1. Portion of piping upstream of valves Q1P16V540 and Q1P16V541.
  2. Portion of piping downstream of valves Q1P16V516 and Q1P16V517.
- Component cooling water (2) - reference drawing D-351103, sheets 1, 2, and 3.
  1. Component Cooling Water Surge Tank
  2. Portion of piping from CCW surge tank to valves Q1P17V117A, Q1P17V117B, Q1P17V121A, Q1P17V121B, Q1P17V110A, Q1P17V110B,Q1P17V110E, Q1P17V110F, Q1P17V109A, Q1P17V109C, Q1P17V278A, Q1P17V278B, Q1P17V278C, Q1P17V144A, Q1P17V144C, Q1P17V017A, Q1P17V017B
- Chemical and volume control (2) - reference drawing D-351116, sheet 3, and D-351115, sheet 1.
  1. Portion of piping from valve Q1E21V019 to discharge of Boron Injection Recirculation Pumps - valves Q1E21V006A and Q1E21V006B.
- Reactor makeup - reference drawings D-351113, sheet 1 and D-351129, sheet 1.
- Spent fuel pool cooling (2) - reference drawing D-351120, sheet 1.
  1. Portion of piping downstream of valves Q1G31V003A and Q1G31V003B.
  2. Portion of piping downstream of valve Q1G31V005.
  3. Portion of piping upstream of valves Q1G31V001A and Q1G31V001B.

Notes:

(1) These portions of Class 3 piping are unisolable from non-safety related piping providing service water supply to and from the turbine building.

(2) These portions of Class 3 piping and components cannot be isolated for hydrostatic test since removal from service for testing would render the entire system inoperable.

Requirement from which Relief is Requested: Paragraph IWD-2510 and Table IWD-2500-1 of ASME Section XI require that all Class 3 pressure retaining components be subjected to visual examination (VT-2) in conjunction with the system pressure tests of IWD-5000.

Basis for Relief: Hydrostatic testing of the above systems is not practical since they operate continuously during all modes of plant operations.

Alternate Examination: Functional operation of the systems demonstrates structural and leaktight integrity. Visual inspection to verify leaktightness will be performed while the systems are at normal operating pressure.

RELIEF REQUEST

FNP-1

RR-34

Component or Relief Area:	Hydrostatic testing of Class 3 spray additive piping and components in the containment spray system (reference drawing D351115, Sheet 3).
Requirement from which Relief is Requested:	Paragraph IWD-2510 and Table IWD-2500-1 of ASME Section XI require that all Class 3 pressure retaining components be subjected to visual examination (VT-2) in conjunction with the system pressure test of IWD-5000.
Basis for Relief:	While in service these spray additive lines have an operating pressure of 15 psig and temperature of 100°F, which is well below the design conditions of 210 psig pressure and 300°F temperature. Therefore, a system hydrostatic test at 1.25 P_{sv} would not provide a meaningful test. In addition, the hydrostatic test will involve handling of highly corrosive sodium hydroxide, which is undesirable and hazardous to personnel safety.
Alternate Examination:	A measured flow test in accordance with plant Technical Specification paragraph 4.6.2.2d will be conducted periodically to assure the leaktightness of these Class 3 components.

FNP-1

RR-35

Component or Relief Area:	Hydrostatic testing of Class 3 portions of buried piping in the following system: o Service water - reference drawing D351130, Sheet 2, virtually all of the lines on this drawing.
Requirement from which Relief is Requested:	Paragraph IWD-2510 and Table IWD-2500-1 of ASME Section XI require that all Class 3 pressure-retaining components be subjected to visual examination (VT-2) in conjunction with the system pressure tests of IWA-5000. Paragraph IWA-5244 describes the detailed requirements for buried components.
Basis for Relief:	The design of this system does not allow access for visual examination as required by IWA-5244.
Alternate Examination:	Buried piping will be inspected by conducting a visual observation of the ground (at ground elevation) for wet spots while the systems are at operating pressure. This is in accordance with the Final Safety Analysis Report, paragraphs 3.1.41 and 9.2.1.4.

FNP-1

RR-36

Component or Relief Area:

Visual (VT-2) examination of heat exchanger tubes of Class 3 pressure retaining safety-related heat exchangers.

- Three each component cooling water HX-Q1P17 H001A-B, H001B-AB and H001C-A - reference drawing D351103, sheet 1 of 3.

Requirement from which Relief is Requested:

Paragraph IWD-2510 and Table IWD-2500-1 of ASME Section XI require that all Class 3 pressure retaining components be subjected to a visual examination (VT-2) in conjunction with the system pressure tests of IWD-5000.

Basis for Relief:

Due to component design and limited accessibility, these heat exchanger tubes cannot be visually inspected under high pressure hydrostatic test conditions. Integrity of the component is assured by testing the component as a unit.

Alternate Examination:

Tube side inspection will be performed by isolating the heat exchanger, removing the waterbox covers, and pressurizing the shell side with water. Tube leakage is indicated if there is any flow from the tubes while in this configuration. This type inspection will be performed at least once per inspection interval.

FNP-1

RR-37

Component or Relief Area:

Visual (VT-2) examination of the cooling coils for the following Class 3 pressure retaining safety-related coolers:

- Four units containment coolers - Q1E12-H001A-A, H001B-A, H001C-B and H001D-B.
- Two units control room air-conditioning condensers - QSV491-K001A-A and K001B-B.

  - Reference drawing D351104, sheet 1 of 3.

- Two units auxiliary feedwater pump room coolers - Q1E16-H005A-A and H005B-B.
- Two units component cooling water pump room coolers Q1E16-H004A-A and H004B-B.
- Two units containment spray pump room coolers Q1E16-H002A-A and H002B-B.
- Two units RHR/LHSI pump room coolers Q1E16-H003A-A and H003B-B.

  - Reference drawing D351104, sheet 2 of 3.

- Three units battery charging room coolers Q1E16-H006A-A, H006B-B, and H006C-AB.
- Three units charging pump room coolers Q1E16-H001A-A, H001B-AB, and H001C-B.
- Two units 600-V load center coolers Q1E16-H009-A and H010-B.
- Three units motor control center room coolers Q1E16-H007-A, H008A-B, and H008B-B.

  - Reference drawing D351104, sheet 3 of 3..

Requirement from which Relief is Requested:

Paragraph IWD-2510 and Table IWD-2500-1 of ASME Section XI require that all Class 3 pressure retaining components be subjected to visual examination (VT-2) in conjunction with the system pressure tests of IWA-5000.

FNP-1

RR-37 (Continued)

Basis for Relief: Due to the component design, the cooling coils (heat exchanger tubes) cannot be visually inspected during the conduct of system pressure test.

Alternate Examination: The normal operation of these cooling units demonstrates their structural and leaktight integrity. Visual inspection to verify leaktightness will be performed while the system is at normal operating pressure. Also, the coolers provided with the drain basin will be inspected by observing for abnormal flow (other than normal condensation).

FNP-1

RR-38

Component or Relief Area:	Hydrostatic testing of Class 3 pressure retaining piping of the auxiliary steam system. Reference drawing D351110, sheet 2 of 2 (all class 3 portion).
Requirement from which Relief is Requested:	Paragraph IWD-2510 and Table IWD-2500-1 of ASME Section XI require that all Class 3 pressure retaining components be subjected to visual examination (VT-2) in conjunction with the system pressure test described in IWD-5000.
Basis for Relief:	There is no practical means of isolating the above portions of the auxiliary steam system and, therefore, hydrostatic testing cannot be conducted on these lines.
Alternate Examination:	Visual inspection to verify leaktightness will be performed while these lines are at normal operating pressure.

FNP-1

RR-39

Component or Relief Area:

Hydrostatic testing of Class 3 pressure retaining auxiliary feedwater pump minimum flow piping. Reference drawing D351106, sheet 1.

- Line No. 2"DBC-4 - between valve Q1N23V019A and flow orifice F03214A.
- Line No. 2"DCB-4 - between valve Q1N23V019B and flow orifice F03214B.
- Line No. 2"DBC-4 and 3"DBC-4 - between valve Q1N23V010 and flow orifice F03219.

Requirement from which Relief is Requested:

Paragraph IWD-2510 and Table IWD-2500-1 of ASME Section XI require that all Class 3 pressure retaining components be subjected to a visual examination (VT-2) in conjunction with the system pressure tests of IWD-5000.

Basis for Relief:

Performance of a hydrostatic test on the portions of the piping system listed above could overpressurize the lower pressure, noncode piping downstream of these flow orifices.

Alternate Examination:

These lines will receive a visual examination during normal operation at system operating temperature and pressure.

FNP-1

RR-40

Component or Relief Area:

Hydrostatic testing of all Class 2 branch pipe lines from the volume control tank (VCT) to the first valve. Affected lines are listed below:

- Reference drawings D351116, sheet 2 of 4, lines from VCT to valves Q1E21V260, Q1E21V209, Q1E21V356, Q1E21V152, Q1E21V201, Q1E21V196, Q1E21V262, Q1E21V261, Q1E21V193, Q1E21V376A, Q1E21V337, and Q1E21V423.
- Reference drawing D351117, sheet 1 of 1, line from VCT to valve Q1G12V029.
- Reference drawing D351119, sheet 5 of 7, line from VCT to valve Q1G22V249, and line from VCT to valve Q1G22V189.
- Reference drawing D351119, sheet 6 of 7, line from VCT to valve Q1G22V081.
- Reference drawing D351107, sheet 1 of 3, line from VCT to valve Q1P15HV3117.

Requirement from which Relief is Requested:

Category C-H, Table IWC-2500-1 of ASME Section XI, requires a hydrostatic test for all Class 2 pressure retaining components once every 10-year inspection interval, in accordance with IWC-5222.

Basis for Relief:

The Class 2 portion of piping as referenced above cannot be isolated from the tank. The VCT tank is designed to 75 psig and the associated piping is designed to 150 psig. Therefore, the only practical means to hydrotest the tank associated piping is based on the VCT design pressure.

Alternate Examination:

None. The connecting lines to the VCT tank will be hydrostatically tested to the same pressure as the tank.

FNP-1

RR-41

Component or Relief Area:	Break away drag test for hydraulic snubbers.
Requirement from which Relief is Requested:	Paragraph IWF-5400(b)(1) of ASME Section XI requires test verification of snubbers for maximum drag during low velocity displacements.
Basis for Relief:	Hydraulic snubbers are inherently inconsistent when this particular test is considered. The load required to initiate movement will vary considerably between identical snubbers. The break-away force required to initiate movement would be determined by a number of variables (viscosity of hydraulic fluid, valve spring rates, temperature, etc.), all of which have no relevancy to snubber integrity. While break-away force for mechanical snubbers is a relatively consistent value whose increase is related to snubber integrity, this is not the case with hydraulic snubbers. The manufacturers of hydraulic snubbers have not recognized break-away force as a test variable that is relevant to snubber integrity in that they have not addressed this parameter in their technical information.
Alternate Examination:	None.

FNP-1

RR-42

Component or Relief Area:	Additional sample testing requirements for snubbers.
Requirement from which Relief is Requested:	Paragraph IWF-5400(c) of ASME Section XI requires an additional sampling of 10 percent of the total number of snubbers to be tested if the initial 10-percent representative sample has failed inservice testing. Additional sample testing is to continue until all units within the sample have passed inservice testing.
Basis for Relief:	The additional sampling plan required by IWF-5400(c) is more restrictive than the existing expansion plan detailed in Farley Technical Specification 3/4.7.9c. The existing expansion plan detailed in 3/4.7.9c meets the following statistical goals set forth as the Bases in Farley Technical Specifications B 3/4.7.9: To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested during plant shutdowns at 18-month intervals. Selection of a representative sample according to the expression 35(1+c/2) provides a confidence level of approximately 95 percent that 90 percent to 100 percent of the snubbers in the plant will be OPERABLE within acceptance limits, where c is the allowable number of snubbers not meeting the acceptance criteria. Observed failures of these sample snubbers shall require functional testing of additional units.
Alternate Examination:	Snubber surveillance testing will be performed in accordance with the Farley Technical Specifications.

FNP-1

RR-43

Component or Relief Area:	Hydrostatic testing of Class 2 portions of the RCS head vent lines. Reference drawing D351114, sheet 1 of 3, line No. 1" CCB-63 between solenoid valves Q1B13HV-2 to Q1B13HV-1 and Q1B13HV-4 to Q1B13HV-3.
Requirement from which Relief is Requested:	Item No. C7.40, Category C-H, Table IWC-2500-1 of ASME Section XI, requires a hydrostatic test of all Class 2 pressure retaining components once every 10-year inspection interval, in accordance with paragraph IWC-5222.
Basis for Relief:	Hydrostatic testing of the RCS is performed in mode 2 of the reactor plant shutdown. In this mode the plant Technical Specifications require that all solenoid valves on the RCS head vent be maintained closed. This being the case, hydrostatic testing of the portion between these valves at this time would be a violation of the Technical Specifications. Another way to hydrotest these lines would be to pressurize the line after the head has been removed. This would require actuating solenoid valves QB13HV-2 and Q1B13HV-4 with the aid of a temporary electric power source. The work associated with actuating these valves, installing test connections, and performing the hydrostatic test would require excessive radiation exposure (approx. 1.5 man-rem). This level of exposure is unwarranted in view of the minimal benefits gained by testing this relatively small section of pipe which is approximately 6 inches long.
Alternate Examination:	Functional operation of this system demonstrates structural integrity. Visual inspection will be performed while the system is at normal operating pressure to verify leaktightness.

FNP-1

RR-44

Component or Relief Area:

Visual (VT-2) examination of heat exchanger tubes of Class 3 pressure retaining safety-related heat exchangers.

- Two each spent fuel pool cooling HX-Q1G31 H001A-B and H001B-A - reference drawings D351103 Sheet 1 of 3, and D3511120, sheet 1 of 1.

Requirement from which Relief is Requested:

Paragraph IWD-2510 and Table IWD-2500-1 of ASME Section XI require that all Class 3 pressure retaining components be subjected to a visual examination (VT-2) in conjunction with the system pressure tests of IWD-5000.

Basis for Relief:

Due to component design and limited accessibility, these heat exchanger tubes cannot be visually inspected under high pressure hydrostatic test conditions. Integrity of the component is assured by normal operation of the system.

Alternate Examination:

Tube side leakage will be identified by the existing in-line radiation monitoring system and existing periodic sampling of the Component Cooling Water and Spent Fuel Pool Cooling Systems. If a tube leak is indicated, the water box covers will be removed and a visual examination (VT-2) performed to identify the leaking tubes. The tubes will be plugged prior to returning the heat exchanger to service.

RELIEF REQUEST

FNP-1

RR-45

DELETED

(Not Required)

RELIEF REQUEST

FNP-1

RR-46

Component or Relief Area:	Scheduling for the performance of Class 2 and 3 system hydrostatic tests to be accomplished during the second ten-year inspection interval.
Requirement from Which Relief is Requested:	Table IWC-2500-1, Examination Category C-H, Note 5 and Table IWD-2500-1, Examination Categories D-A, D-B, and D-C, Note 2 require that system hydrostatic tests be conducted at or near the end of the inspection interval or during the same inspection period of each inspection interval for Inspection Program B.
Basis for Relief:	The system hydrostatic tests are scheduled on a periodic basis in accordance with Inspection Program B. As a result of performing additional tests during the first ten-year interval, it is necessary to move eight (8) hydrostatic tests forward one period. The original schedule for performing hydrostatic testing was based on dividing the systems to be tested into eighteen (18) procedures. Due to operational conditions during the course of the interval, several procedures were divided resulting in additional hydrostatic testing procedures to be performed. At the end of the interval twenty five (25) procedures existed to cover the systems to be tested.
Alternate Examinations:	All twenty five (25) hydrotest procedures will be performed during the second inspection interval. They will be scheduled to distribute the testing evenly between the three (3) periods for the second interval.

7.0 REFERENCES

7.1 Documents

1. Title 10, Code of Federal Regulations, Part 50, Section 55a.
2. ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition with Addenda through Summer, 1975.
3. ASME Boiler and Pressure Vessel Code, Section XI, 1983 Edition with Addenda through Summer, 1983.

4.	Reg. Guide 1.14:	Reactor Coolant Pump Flywheel Integrity (Safety Guide 14, dated 10-27-71).
5.	Reg. Guide 1.26:	Quality Group Classifications and Standards for Water-Steam and Radioactive-Waste Containing Components of Nuclear Power Plants (Safety Guide 26, Dated 3-23-72).
6.	Reg. Guide 1.65, Rev. 0:	Materials and Inspection for Reactor Vessel Closure Studs.
7.	Reg. Guide 1.82, Rev. 0:	Sumps for Emergency Core Cooling and Containment Spray Systems.
8.	Reg. Guide 1.83, Rev. 1:	Inservice Inspection of Pressurized Water Reactor Steam Generator Tubes.
9.	Reg. Guide 1.147, Rev. 7:	Inservice Inspection Code Case Acceptability - ASME Section XI Division 1.
10.	Reg. Guide 1.150, Rev. 1:	Ultrasonic Testing of Reactor Vessel Welds During Preservice and Inservice Examinations.
11.	Branch Technical Positions APCSB 3-1 and MEB 3-1	General Information Required for Consideration of the Effects of a Piping System Break Outside Containment.
12.	FSAR-Volume 5 Section 3.2, Table 3.2-1	Listing of Codes applicable to construction of components.

13. The following is a list of Code Cases from Regulatory Guide 1.147 that may be used at Farley Nuclear Plant:

N-98	12/05/84	N-408	07/12/84
N-211	05/07/87	N-409-1	12/07/87
N-216	05/07/87	N-415	09/05/85
N-234	12/05/84	N-416	12/05/85
N-235	02/14/85	N-419	07/17/85
N-278	02/19/86	N-424	07/18/85
N-306	05/07/87	N-426	07/18/85
N-307-1	12/05/84	N-427	12/05/85
N-308	09/30/84	N-429-1	02/23/87
N-311	05/07/87	N-432	02/20/86
N-335-1	06/20/85	N-435-1	12/07/87
N-343	02/14/85	N-436-1	12/07/87
N-355	02/14/85	N-437	07/30/86
N-356	07/01/88	N-444	12/07/87
N-375-2	04/05/86	N-445	05/07/87
N-389	05/14/86	N-446	05/07/87
N-401	02/20/84	N-448	07/27/87
N-402	02/20/84	N-449	07/27/87
N-406	04/05/84	N-457	12/07/87

7.2 Letters

1. Inservice Inspection Program Initial Submittal, letters dated July 8, 1977, supplemented on November 21, 1977, March 16 and March 30, 1978, from F. L. Clayton, APC, to John Stolz, USNRC.

2. Nuclear Regulatory Commission Notice of Granting Relief, letter dated December 7, 1979, from A. Schwencer, USNRC, to Alan R. Barton, APC.

3. Relief Requested from Vessel Cladding Examinations, letter dated April 17, 1981, Supplemented January 10, 1983, from F. L. Clayton, APC, to S. A. Varga, USNRC.

4. Relief Requested from Pressure Testing Requirements, letter dated January 28, 1983, supplemented January 23, 1984, from F. L. Clayton, APC, to S. A. Varga, USNRC.

5. Nuclear Regulatory Commission Notice of Granting Relief for Vessel Cladding Examinations, letter dated August 24, 1983, from S. A. Varga, USNRC, to F. L. Clayton, APC.

6. Nuclear Regulatory Commission Notice of Granting Relief from pressure testing requirements, letter dated February 10, 1984, from S. A. Varga, USNRC, to F. L. Clayton, APC.

7. Relief Requested from Charging Pump Examinations and Steam Generator Hydrostatic Test Examinations, letter dated August 16, 1984, from R. P. McDonald, APC, to S. A. Varga, USNRC.

8. Nuclear Regulatory Commission Notice of Granting Relief for Charging Pump Casing Welds and Integrally Welded Supports, and for Hydrostatic Test Pressure for Steam Generators and Class 2 Piping, letter dated January 10, 1985, from S. A. Varga, USNRC, to R. P. McDonald, APC.

9. APC response to the USNRC Generic Letter 83-15 and Regulatory Guide 1.150, Revision 1, for Units 1 and 2 by letter from F. L. Clayton, Jr., APC, to S. A. Varga, USNRC, dated October 26, 1983.

10. Relief Requested from Inspection Requirements of certain Reactor Vessel Flange Ligaments, Reactor Coolant Pump Casing Internal Surfaces and Flange Bolts, letter dated October 14, 1985, from R. P. McDonald, APC, to S. A. Varga, USNRC.

11. Nuclear Regulatory Commission Notice of Granting Relief for Reactor Vessel Flange Ligaments, Reactor Coolant Pump Casing Internal Surfaces and Flange Bolts, letter dated December 27, 1985, from L. S. Rubenstein, USNRC, to R. P. McDonald, APC.

12. Relief Requested from Inspection Requirements for Certain Pressure-Retaining Valve Body Welds and Internal pressure Boundary Surfaces, Letter dated March 11, 1986, from R. P. McDonald, APC, to L. S. Rubenstein, USNRC.

13. Nuclear Regulatory Commission Notice of Granting Relief for Pressure-Retaining Valve Body Welds and Internal Pressure Boundary Surfaces, letter dated June 19, 1986, from D. G. McDonald, USNRC, to R. P. McDonald, APC.