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PERRY NUCLEAR POWER PLANT

Al Kaplan

VICE PRESIDENT
NUCLEAR GROUP

November 18, 1988
PY-CEI/NRR-0919 L

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Perry Nuclear Power Plant
Docket No. 50-440
Inservice Inspection
Relief Requests

Gentlemen:

By letter dated February 9, 1988, the NRC staff noted that relief requests for the Perry Inservice Inspection (ISI) Program would have to be submitted, based on guidelines provided in Appendix A to that letter. The subject relief requests are attached; inspection schedules remain as defined in Sections 12 and 13 of the 10 year Inservice Inspection Program Plan for Perry Nuclear Power Plant, Unit 1, as submitted to the NRC by letter PY-CEI/NRR-0614L on March 31, 1987 (ISI Plan).

Pursuant to 10 CFR 170.12, we have included a fee payment of \$150.00.

If you have further questions, please feel free to call.

Very truly yours,

Al Kaplan
Vice President
Nuclear Group

AK/sc

Enclosure

cc: T. Colburn
K. Connaughton
USNRC Region III

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Ferry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-001

I. Identification of Components

System: Reactor Pressure Vessel, Class I

A. Category: B-A, Pressure Retaining Welds

Component Description: (See attached table for component identification numbers).

1. Shell welds (Item No. B1.11, B1.12)
2. Head welds (Item No. B1.21, B1.22)
3. Head to flange (Item No. B1.40)

B. Category: B-D, Full Penetration Welds of Nozzles in Vessels

Component Description: (See attached table for component identification numbers)

1. Nozzle to shell welds (Item No. B3.90)
2. Nozzle inside radius section (Item No. B3.100)

C. Category: B-F, Pressure Retaining Dissimilar Metal Welds

Component Description: (See attached table for component identification numbers)

1. Nozzle to safe end welds (Item No. B5.10)

II. ASME B&PV Section XI Requirements

ASME Code requires 100% volumetric examination of welds and required volume.

III. Relief Requested

Relief requested from 100% volumetric examination (See attached table for percent completion of each specific component) at the first and subsequent examinations as scheduled in Section 13 of the ISI Plan.

IV. Basis for Relief

The structural integrity of the reactor pressure vessel welds was demonstrated during construction by meeting the requirements of the ASME Code Section III, and additionally by meeting the requirements of ASME Section XI during preservice inspections. All welds were examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and

Perry Nuclear Power Plant Unit 1
Relief Request #IR-001

materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. The Perry Unit 1 reactor vessel had no reportable indications from preservice inspection results.

The pressure boundary passed the required hydrostatic test; following startup testing the plant has operated between 60% and 70% capacity factor for a total of about 250 equivalent full power days between November 1987 and November 1988, without detectable pressure boundary leakage.

Complete examinations meeting the requirements of the ASME Code Section XI will continue to be performed on welds of similar configurations utilizing similar weld techniques, procedures and materials. The inspected welds are subject to the same operating and environmental conditions as the partially examined or unexamined welds.

It is, therefore, reasonable to apply the results from examined welds to the partially examined welds in the attached table.

In addition, catastrophic reactor vessel failure is precluded by avoiding nil ductile temperatures at significant stress levels according to the design, surveillance and operating provisions described in the Perry USAR Sections 5.3.1 and 5.3.2 and the Technical Specifications 3/4.4.6.

In summary, because of initial vessel condition free of reportable indications, successful code hydrotest and operating experience without leakage indications, the capability to examine most vessel welds on a continuing basis, the capability to detect pressure boundary leakage, and protections against brittle reactor vessel failure, it is concluded that there is no significant impact on the overall level of plant quality and safety.

See the attached table for specific causes of NDE limitation for each component.

V. Alternate Examination

None

SYSTEM: Reactor Pressure Vessel

ITEM NO.	WELD I.D.	DESCRIPTION	CODE CATEGORY	PERCENTAGE COMPLETE		BASIS FOR RELIEF*
				⊥	//	
B1.11	1-B13-AA	Lower head to shell #1 circ. weld	BA	50	50	Examination performed from shell side only due to support skirt and base ring obstruction on lower head.
B1.12	1-B13-BA	Shell #1 long. seam at 17°	BA	70	78	Obstructions presented by N1 and N2 recirculation nozzles.
B1.12	1-B13-BB	Shell #1 long. seam at 137°	BA	74	76	Obstructions presented by N2 recirculation nozzles.
B1.12	1-B13-BC	Shell #1 long. seam at 257°	BA	75	75	Obstructions presented by N2 recirculation nozzles.
B1.11	1-B13-AB	Shell #1 to shell #2 circ. weld	BA	85	99	Obstructions presented by N1 and N2 recirculation nozzles.
B1.12	1-B13-BE	Shell #2 long. seam at 160°	BA	92	90	Obstructions presented by N12 instrumentation nozzle.
B1.11	1-B13-AC	Shell #2 to shell #3 circ. weld	BA	91	100	Obstructions presented by the four N12 instrumentation nozzles on shell #2.
B1.12	1-B13-BG	Shell #3 long. seam at 79°	BA	70	75	Obstructions presented by N4 feedwater and N6 RHR/LPCI nozzles.
B1.12	1-B13-BJ	Shell #3 long. seam at 199°	BA	69	68	Obstructions presented by N13 instrumentation and N4 feedwater nozzles.
B1.12	1-B13-BK	Shell #3 long. seam at 319°	BA	88	100	Perpendicular examination obstructed by N4 feedwater nozzle. Complete parallel scan performed.

⊥ Perpendicular scan
// Parallel scan
* Refer to drawings ISU-B13-001, 002, and 005 through 009.

SYSTEM: Reactor Pressure Vessel

ITEM NO.	WELD I.D.	DESCRIPTION	CODE CATEGORY	PERCENTAGE COMPLETE		BASIS FOR RELIEF
				⊥	//	
B1.11	1-B13-AD	Shell #3 to shell #4 circ. weld	BA	99	97	Parallel scan could not be performed for approximately 30" along taper between shell #3 and shell #4.
B1.12	1-B13-BN	Shell #4 long. seam at 48°	BA	64	69	Obstruction presented by N3 main steam nozzle and mechanical limits of scanner.
B1.12	1-B13-BP	Shell #4 long. seam at 168°	BA	85	88	Perpendicular examination obstructed by N16 vibration instrumentation nozzle, N14 instrumentation nozzle and mechanical limits of scanner. Parallel examination obstructed by N14 and mechanical limits of scanner.
B1.12	1-B13-BR	Shell #4 long. seam at 228°	BA	89	86	Obstructions presented by N3 main steam nozzle and mechanical limits of scanner.
B3.90	1-B13-N1A-KA	N1 nozzle to shell weld	BD	89	46	*Scan path obstructed by nozzle geometry and mechanical limits of scanner.
B3.100	1-B13-N1A-IR	N1 nozzle inner radius area	BD	92	N/A	Shell side examination limited by taper between shell #1 and shell #2.
B3.90	1-B13-N1B-KA	N1 nozzle to shell weld	BD	83	10	*Scan path obstructed by nozzle geometry and mechanical limits of scanner.
B3.100	1-B13-N1B-IR	N1 nozzle inner radius area	BD	92	N/A	Shell side examination limited by taper between shell #1 and shell #2.
B3.90	1-B13-N2A-KA	N2 nozzle to shell weld	BD	65	36	*Scan path obstructed by nozzle geometry biowall doors and mechanical limits of scanner.

⊥ Perpendicular scan

// Parallel scan

* Perpendicular weld examination limited to one direction toward nozzle centerline.

SYSTEM: Reactor Pressure Vessel

ITEM NO.	WELD I.D.	DESCRIPTION	CODE CATEGORY	PERCENTAGE COMPLETE		BASIS FOR RELIEF
				⊥	//	
B3.100	1-B13-N2A-IR	N2 nozzle inner radius area	BD	88	N/A	Shell side examination limited by taper between shell #1 and shell #2.
B5.10	1-B13-N2A-KB	N2 nozzle to safe end weld	BF	55	75	Scan path obstructed by nozzle geometry and permanent vessel track at 20° Az.
B3.90	1-B13-N2B-KA	N2 nozzle to shell weld	BD	86	49	*Scan path obstructed by nozzle geometry and mechanical limits of scanner.
B3.100	1-B13-N2B-IR	N2 nozzle inner radius area	BD	88	N/A	Shell side examination limited by taper between shell #1 and shell #2.
B5.10	1-B13-N2B-KB	N2 nozzle to safe end weld	BF	74	87	Scan path obstructed by nozzle geometry and OD weld contour.
B3.90	1-B13-N2C-KA	N2 nozzle to shell weld	BD	86	74	*Scan path obstructed by nozzle geometry, N9 jet pump instrumentation nozzle and mechanical limits of scanner.
B3.100	1-B13-N2C-IR	N2 nozzle inner radius area	BD	86	N/A	Shell side examination limited by taper between shell #1 and shell #2 and N9 jet pump instrumentation nozzle.
B5.10	1-B13-N2C-KB	N2 nozzle to safe end weld	BF	22	75	Scan path obstructed by nozzle geometry and OD weld contour.
B3.90	1-B13-N2D-KA	N2 nozzle to shell weld	BD	74	46	*Scan path obstructed by nozzle geometry, N9 jet pump instrumentation nozzle, permanent vessel tracks at 110° and 135° Az., and mechanical limits of scanner.

⊥ Perpendicular scan

// Parallel scan

* Perpendicular weld examination limited to one direction toward nozzle centerline.

SYSTEM: Reactor Pressure Vessel

ITEM NO.	WELD I.D.	DESCRIPTION	CODE CATEGORY	PERCENTAGE COMPLETE		BASIS FOR REFLECT
				⊥	//	
B3.100	1-B13-N2D-IR	N2 nozzle inner radius area	BD	86	N/A	Shell side examination limited by taper between shell #1 and shell #2 and N9 jet pump instrumentation nozzle.
B5.10	1-B13-N2D-KB	N2 nozzle to safe end weld	BF	47	100	Scan path obstructed by nozzle geometry and OD weld contour.
B3.90	1-B13-N2E-KA	N2 nozzle to shell weld	BD	73	67	*Scan path obstructed by nozzle geometry, permanent vessel track at 135° Az., and mechanical limits of scanner.
B3.100	1-B13-N2E-IR	N2 nozzle inner radius area	BD	88	N/A	Shell side examination limited by taper between shell #1 and shell #2.
B5.10	1-B13-N2E-KB	N2 nozzle to safe end weld	BF	75	88	Scan path obstructed by nozzle geometry.
B3.90	1-B13-N2F-KA	N2 nozzle to shell weld	BD	87	37	*Scan path obstructed by nozzle geometry, permanent vessel track at 200° Az., and mechanical limits of scanner.
B3.100	1-B13-N2F-IR	N2 nozzle inner radius area	BD	88	N/A	Shell side examination limited by taper between shell #1 and shell #2.
B5.10	1-B13-N2F-KB	N2 nozzle to safe end weld	BF	12	85	Scan path obstructed by nozzle geometry and OD weld contour.
B3.90	1-B13-N2G-KA	N2 nozzle to shell weld	BD	83	37	*Scan path obstructed by nozzle geometry and mechanical limits of scanner.
B3.100	1-B13-N2G-IR	N2 nozzle inner radius area	BD	88	N/A	Shell side examination limited by taper between shell #1 and shell #2.

⊥ Perpendicular scan

// Parallel scan

* Perpendicular weld examination limited to one direction toward nozzle centerline.

SYSTEM: Reactor Pressure Vessel

ITEM NO.	WELD I.D.	DESCRIPTION	CODE CATEGORY	PERCENTAGE COMPLETE		BASIS FOR RELIEF
				⊥	//	
B5.10	1-B13-N2G-KB	N2 nozzle to safe end weld	BF	24	97	Scan path obstructed by nozzle geometry and OD weld contour.
B3.90	1-B13-N2H-KA	N2 nozzle to shell weld	ED	89	37	*Scan path obstructed by nozzle geometry, N9 jet pump instrumentation nozzle and mechanical limits of scanner.
B3.100	1-B13-N2H-IR	N2 nozzle inner radius area	BD	86	N/A	Shell side examination limited by taper between shell #1 and shell #2 and jet pump instrumentation nozzle.
B5.10	1-B13-N2H-KB	N2 nozzle to safe end weld	BF	57	97	Scan path obstructed by nozzle geometry and OD weld contour.
B3.90	1-B13-N2J-KA	N2 nozzle to shell weld	BD	88	53	*Scan path obstructed by nozzle geometry, N9 jet pump instrumentation nozzle and mechanical limits of scanner.
B3.100	1-B13-N2J-IR	N2 nozzle inner radius area	BD	86	N/A	Shell side examination limited by taper between shell #1 and shell #2 and jet pump instrumentation nozzle.
B5.10	1-B13-N2J-KB	N2 nozzle to safe end weld	BF	83	88	Scan path obstructed by nozzle geometry.
B3.90	1-B13-N2K-KA	N2 nozzle to shell weld	BD	86	46	*Scan path obstructed by nozzle geometry, permanent vessel track at 340° Az., and mechanical limits of scanner.
B3.100	1-B13-N2K-IR	N2 nozzle inner radius area	BD	88	N/A	Shell side examination limited by taper between shell #1 and shell #2.

⊥ Perpendicular scan

// Parallel scan

* Perpendicular weld examination limited to one direction toward nozzle centerline.

SYSTEM: Reactor Pressure Vessel

ITEM NO.	WELD I.D.	DESCRIPTION	CODE CATEGORY	PERCENTAGE COMPLETE		BASIS FOR RELIEF
				⊥	//	
B5.10	1-B13-N2K-KB	N2 nozzle to safe end weld	BF	74	88	Scan path obstructed by nozzle geometry.
B3.90	1-B13-N4A-KA	N4 nozzle to shell weld	BD	97	32	*Scan path obstructed by nozzle geometry.
B3.100	1-B13-N4A-IR	N4 nozzle inner radius area	BD	96	N/A	Shell side examination limited by N13 instrumentation nozzle at 15° Az.
B5.10	1-B13-N4A-KB	N4 nozzle to safe end weld	BF	87	100	Scan path obstructed by nozzle geometry.
B3.90	1-B13-N4B-KA	N4 nozzle to shell weld	BD	99	59	*Scan path obstructed by nozzle geometry.
B5.10	1-B13-N4B-KB	N4 nozzle to safe end weld	BF	77	98	Scan path obstructed by nozzle geometry.
B3.90	1-B13-N4C-KA	N4 nozzle to shell weld	BD	93	32	*Scan path obstructed by nozzle geometry.
B3.100	1-B13-N4C-IR	N4 nozzle inner radius area	BD	96	N/A	Shell side examination limited by N13 instrumentation nozzle at 165° Az.
B5.10	1-B13-N4C-KB	N4 nozzle to safe end weld	BF	83	98	Scan path obstructed by nozzle geometry.
B3.90	1-B13-N4D-KA	N4 nozzle to shell weld	BD	83	32	*Scan path obstructed by nozzle geometry and permanent vessel track at 200° Az.
B3.100	1-B13-N4D-IR	N4 nozzle inner radius area	BD	96	N/A	Shell side examination limited by N13 instrumentation nozzle at 195° Az.
B5.10	1-B13-N4D-KB	N4 nozzle to safe end weld	BF	83	93	Scan path obstructed by nozzle geometry.

⊥ Perpendicular scan

// Parallel scan

* Perpendicular weld examination limited to one direction toward nozzle centerline.

SYSTEM: Reactor Pressure Vessel

ITEM NO.	WELD I.D.	DESCRIPTION	CODE CATEGORY	PERCENTAGE COMPLETE		BASIS FOR RELIEF
				⊥	//	
B3.90	1-B13-N4E-KA	N4 nozzle to shell weld	BD	98	59	*Scan path obstructed by nozzle geometry.
B5.10	1-B13-N4E-KB	N4 nozzle to safe end weld	BF	80	98	Scan path obstructed by nozzle geometry.
B3.90	1-B13-N4F-KA	N4 nozzle to shell weld	BD	97	59	*Scan path obstructed by nozzle geometry.
B3.100	1-B13-N4F-IR	N4 nozzle inner radius area	BD	96	N/A	Shell side examination limited by N13 instrumentation nozzle at 345° Az.
B5.10	1-B13-N4F-KB	N4 nozzle to safe end weld	BF	79	73	Scan path obstructed by nozzle geometry and OD weld contour.
B3.90	1-B13-N5A-KA	N5 nozzle to shell weld	BD	98	61	*Scan path obstructed by nozzle geometry.
B5.10	1-B13-N5A-KB	N5 nozzle to safe end weld	BF	86	100	Scan path obstructed by safe end transition taper.
B3.90	1-B13-N5B-KA	N5 nozzle to shell weld	BD	98	29	*Scan path obstructed by nozzle geometry.
B5.10	1-B13-N5B-KB	N5 nozzle to safe end weld	BF	86	100	Scan path obstructed by safe end transition taper.
B3.90	1-B13-N6A-KA	N6 nozzle to shell weld	BD	95	56	*Scan path obstructed by nozzle geometry.
B5.10	1-B13-N6A-KB	N6 nozzle to safe end weld	BF	91	100	Scan path obstructed by nozzle geometry and safe end transition taper.
B3.90	1-B13-N6B-KA	N6 nozzle to shell weld	BD	93	70	*Scan path obstructed by nozzle geometry.

⊥ Perpendicular scan

// Parallel scan

* Perpendicular weld examination limited to one direction toward nozzle centerline.

SYSTEM: Reactor Pressure Vessel

ITEM NO.	WELD I.D.	DESCRIPTION	CODE CATEGORY	PERCENTAGE COMPLETE		BASIS FOR RELIEF
				⊥	//	
B5.10	1-B13-N6B-KB	N6 nozzle to safe end weld	BF	93	74	Scan path obstructed by nozzle geometry, safe end transition taper and OD weld contour.
B3.90	1-B13-N6C-KA	N6 nozzle to shell weld	BD	95	56	*Scan path obstructed by nozzle geometry.
B5.10	1-B13-N6C-KB	N6 nozzle to safe end weld	BF	95	82	Scan path obstructed by nozzle geometry, safe end transition and OD weld contour.
B1.40	1-B13-AG	Top head to top head flange weld	BA	50	50	Scan path restricted on top head side only (Drawing ISI-B13-...).
B1.21	1-B13-AH	Top head dollar plate to side plate weld	BA	96	100	Scan path obstructed by four lifting lugs at 0°, 90°, 180°, and 270° Az.
B3.90	1-B13-N7-KA	N7 head spare nozzle to top head weld	BD	89	100	*Scan path obstructed by N8 head spray nozzle.
B3.100	1-B13-N7-IR	N7 head spare nozzle inner radius area	BD	94	N/A	Shell side examination limited by N8 head spray nozzle.
B3.90	1-B13-N8-KA	N8 head spray nozzle to shell weld	BD	89	100	*Scan path obstructed by N7 head spare nozzle.
B3.100	1-B13-N8-IR	N8 head spray nozzle inner radius area	BD	94	N/A	Shell side examination limited by N7 head spare nozzle.
B3.90	1-B13-N9A-KA	N9 nozzle to shell weld	BD	81	100	*Scan path obstructed by N2 recirculation inlet nozzles at 90° and 120° Az.

⊥ Perpendicular scan

// Parallel scan

* Perpendicular weld examination limited to one direction toward nozzle centerline.

SYSTEM: Reactor Pressure Vessel

ITEM NO.	WELD I.D.	DESCRIPTION	CODE CATEGORY	PERCENTAGE COMPLETE		BASIS FOR RELIEF
				⊥	//	
B3.100	1-B13-N9A-JR	N9 nozzle inner radius area	BD	96	N/A	Shell side examination limited by N2 recirculation inlet nozzles at 90° and 120° Az.
B3.90	1-B13-N9B-KA	N9 nozzle to shell weld	BD	81	100	*Scan path obstructed by N2 recirculation inlet nozzles at 270° and 300° Az.
B3.100	1-B13-N9B-IR	N9 nozzle inner radius area	BD	96	N/A	Shell side examination limited by N2 recirculation inlet nozzles at 270° and 300° Az.
B4.11	1-B13-N15-KA	N15 nozzle to Bottom Head	BD	0	0	Obstruction presented by CRD tube bundle (Drawing ISI-B13-004).
B1.22	1-B13-DG	Bottom Head Center Plate to Side Plates, 270° Side	BA	29	29	Obstruction presented by CRD tube bundle and skirt knuckle.
B1.22	1-B13-DH	Bottom Head Center Plate to Side Plates, 90° Side	BA	29	29	Obstruction presented by CRD tube bundle and skirt knuckle.

⊥ Perpendicular scan

// Parallel scan

* Perpendicular weld examination limited to one direction toward nozzle centerline.

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-002

I. Identification of Components

Class 1, Category B-G-1, Item No. B6.180, reactor recirculation pump bolts and studs, in place (See attached table for ID numbers).

II. ASME B&PV Section XI Requirements

Table IWB-2500-1 requires a 100% volumetric examination.

III. Relief Requested

Relief from the required 100% volumetric examination of the reactor recirculation pump studs (attached table) is requested at the first and subsequent examinations as scheduled in Section 13 of the ISI Plan.

IV. Basis for Relief (Refer to drawing ISI-B33-G04, Section 14 of ISI Plan)

Volumetric examination of the reactor recirculation pump studs was limited by the elongation measurement hole. This hole (approximately 0.5 in. dia.) extends through 80% of bolt length and interferes with UT examination of the bolt volume in the proximity of the hole. The volume affected is approximately 22% of the total required volume.

The structural integrity of the recirculation pump bolting was demonstrated during construction by meeting the requirements of the ASME Code Section III, and additionally by meeting the requirements of ASME Section XI during preservice inspections. Materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. There were no cracks observed from preservice inspection. The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988 without leak indication attributable to the subject components.

The major area of interest, the thread root area, received 100% volumetric examination. Material in the examined volume is identical to the non-examined portion of the studs. Since the construction, operating conditions and environmental conditions of the non-examined portions are identical to the examined volume, it is reasonable to apply satisfactory results obtained from the inservice inspections to the non-examined volume.

Design, procurement, and operational provisions against nil ductile failure of the subject components remains as described in the Perry USAR Section 5.2.3.3.

Perry Nuclear Power Plant Unit 1
Relief Request #IR-002

In summary, because of acceptable initial bolt condition, successful code hydrotest and operating experience without related leakage indications, the capability to examine about 78% of bolt volume on a continuing basis, and protection against brittle failure, it is concluded that there is no significant impact on the overall level of plant quality and safety.

V. Alternate Examination

None

PERRY NUCLEAR POWER PLANT UNIT 1
RELIEF REQUEST #IR-002

<u>COMPONENT I.D.</u>	<u>DESCRIPTION</u>
1-B33-C001B-1B	REACTOR RECIRC. PUMP B STUD 1
1-B33-C001B-2B	REACTOR RECIRC. PUMP B STUD 2
1-B33-C001B-3B	REACTOR RECIRC. PUMP B STUD 3
1-B33-C001B-4B	REACTOR RECIRC. PUMP B STUD 4
1-B33-C001B-5B	REACTOR RECIRC. PUMP B STUD 5
1-B33-C001B-6B	REACTOR RECIRC. PUMP B STUD 6
1-B33-C001B-7B	REACTOR RECIRC. PUMP B STUD 7
1-B33-C001B-8B	REACTOR RECIRC. PUMP B STUD 8
1-B33-C001B-9B	REACTOR RECIRC. PUMP B STUD 9
1-B33-C001B-10B	REACTOR RECIRC. PUMP B STUD 10
1-B33-C001B-11B	REACTOR RECIRC. PUMP B STUD 11
1-B33-C001B-12B	REACTOR RECIRC. PUMP B STUD 12
1-B33-C001B-13B	REACTOR RECIRC. PUMP B STUD 13
1-B33-C001B-14B	REACTOR RECIRC. PUMP B STUD 14
1-B33-C001B-15B	REACTOR RECIRC. PUMP B STUD 15
1-B33-C001B-16B	REACTOR RECIRC. PUMP B STUD 16

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-003

I. Identification of Components

Class 1, Category B-G-1, Item No. B6.40, threads in reactor vessel flange (flange ligaments - see attached table and Figure ISI-B13-014 for ID numbers).

II. ASME B&PV Section XI Requirements

Table IWB-2500-1 requires a 100% volumetric examination of the stud hole ligament area.

III. Relief Requested

Relief from the required 100% volumetric examination is requested at the first and subsequent examinations as scheduled in Section 13 of the ISI Plan. Because of interference with the lip of the flange seal surface, examination is limited to 93% of required volume.

IV. Basis for Relief

The structural integrity of the reactor vessel flange was demonstrated during construction by meeting the requirements of the ASME Code Section III, and additionally by meeting the requirements of ASME Section XI during preservice inspections. The Perry Unit 1 reactor vessel had no reportable indications from preservice inspection results.

The pressure boundary passed the required hydrostatic test; following startup testing the plant has operated between 60% and 70% capacity factor for a total of about 250 equivalent full power days between November 1987 and November 1988, without detectable pressure boundary leakage.

Examinations meeting the requirements of the ASME Code Section XI will continue to be performed on 93% of the subject volume, which is subject to the same operating and environmental conditions as the unexamined volume. It is, therefore, reasonable to apply the results from examined volume to the non-examined volume.

In addition, catastrophic reactor vessel failure is precluded by avoiding nil ductile temperatures at significant stress levels according to the design, surveillance and operating provisions described in the Perry USAR Sections 5.3.1 and 5.3.2 and the Technical Specifications 3/4.4.6.

Perry Nuclear Power Plant Unit 1
Relief Request #IR-003

In summary, because of initial vessel condition free of reportable indications, successful code hydrotest and operating experience without leakage indications, the capability to examine most of the subject volume on a continuing basis, the capability to detect pressure boundary leakage, and protections against brittle reactor vessel failure, it is concluded that there is no significant impact on the overall level of plant quality and safety.

V. Alternate Examination.

None

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-004

I. Identification of Components

Class 1, Category B-J (Item numbers in attached table), piping welds 4 inches NPS and greater.

II. ASME B&PV Section XI Requirements

Table IWB-2500-1 requires 100% surface and volumetric examination.

III. Relief Requested

Relief is requested from the required volumetric examination because of partial inaccessibility of the weld and required volume, at the first and subsequent examinations as scheduled Section 13 of the ISI Plan.

IV. Basis for Relief

The structural integrity of the piping pressure boundary was demonstrated during construction by meeting the requirements of the ASME Code Section III, and additionally by meeting the requirements of ASME Section XI during preservice inspections. The subject welds were examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. There were no reportable indications during preservice inspection.

The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988 without leakage indication attributable to the subject welds.

In addition to partial inspection of the subject welds, complete examinations meeting the requirements of the ASME Code Section XI are performed on welds of similar configurations which utilize the same weld techniques, procedures and materials. The examined welds are subject to the same operating and environmental conditions as the partially examined welds.

Since the construction, operating conditions and environmental conditions of the non-examined portion of the welds are identical to the examined portions, it is reasonable to apply satisfactory results from examined to the non-examined portions.

Design, procurement and operational provisions against nil ductile failure of the subject welds remain as described in the Perry USAR.

Perry Nuclear Power Plant Unit 1
Relief Request #IR-004

In summary, because of acceptable initial condition, successful code hydrotest and operating experience without related leakage indications, the capability to examine most of the subject weld volumes on a continuing basis, the capability to detect pressure boundary leakage, and protection against brittle failure, it is concluded that there is no significant impact on the overall level of plant quality and safety.

V. Alternate Examination

None

PERRY NUCLEAR POWER PLANT UNIT 1
RELIEF REQUEST NO. IR-004

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<u>ITEM NO.</u>	<u>WELD I.D.</u>	<u>SYSTEM*/DWG. NO.</u>	<u>DESCRIPTION</u>	<u>NATURE OF OBSTRUCTION</u>	<u>EST. % COMPLETE</u>
B9.11	1-B21-0025	MS/ISI-B21-001	Contour Nozzle to Flange	Geometry	Perpendicular 50%
B9.12	1-B21-0112	MS/ISI-B21-001	26" Elbow Seam, Upstream	Branch Connection	Perpendicular & Parallel 95%
B9.11	1-B21-0133	MS/ISI-B21-001	Contour Nozzle to Flange	Geometry	Perpendicular 50%
B9.11	1-E12-0406	RHR/ISI-E12-007	12" Pipe to Valve Interference	Structural	Perpendicular 50%, Parallel 75%
B9.11	1-E12-0880	RHR/ISI-E12-018	12" Process Pipe to Elbow	Containment Penetration & Weld Geometry	Perpendicular 80%
B9.11	1-E22-0012	HPCS/ISI-E22-002	12" Elbow to Penetration	Joint Geometry	Perpendicular 95%
B9.12	1-B33-0027U1	RR/ISI-B33-001	16" Pipe Seam	Lug	Perpendicular & Parallel 92%
B9.11	1-B33-0062	RR/ISI-B33-002	22" Nozzle to Pipe	Geometry	Parallel 75%

*MS = Main Steam
RHR = Residual Heat Removal
HPCS = High Pressure Core Spray
RR = Reactor Recirculation

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-005

I. Identification of Components

Class 1, Category B-J, Item B9.11, piping welds 4 inches NPS and greater (see attached table for I.D. numbers).

II. ASME B&PV Section XI Requirements

Table IWB-2500-1 requires 100% surface and volumetric examination.

III. Relief Requested

Relief is requested from the required volumetric examination, at the first and subsequent examinations as scheduled in Section 13 of the ISI Plan.

IV. Basis for Relief

Ultrasonic examinations conducted on welds in the recirculation loops which were inlaid and overlaid with corrosion resistant cladding required specialized techniques. Typical techniques identified in Appendix III of Section XI proved to be ineffective.

To overcome the metallurgical properties impeding conventional shear wave ultrasonic transmission, refracted longitudinal wave examinations were employed. The acoustic properties of refracted longitudinal wave propagation limit the technique to 1/2 vee path. The Code required volume necessitates a full vee path through the weld and required volume.

Therefore, when access to a butt weld was limited to one side only due to component geometry (e.g. pipe to valve) the perpendicular examination is considered to be only 50% complete.

During construction, the subject welds were examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. In addition, there were no reportable indications during preservice inspections.

The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988 without leakage indication attributable to the subject welds.

Since the construction, operating conditions and environmental conditions of the non-examined portion of the welds are identical to the examined portions, it is reasonable to apply satisfactory results from examined to the non-examined portions.

Perry Nuclear Power Plant Unit 1
Relief Request #IR-005

In summary, because of acceptable initial condition, successful code hydrotest and operating experience without related leakage indications, and the capability to examine half of the subject weld volume on a continuing basis, it is concluded that there is no significant impact on the overall level of plant quality and safety.

V. Alternate Examination

None

PERRY NUCLEAR POWER PLANT UNIT 1
RELIEF REQUEST NO. IR-005

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<u>WELD I.D.</u>	<u>REACTOR RECIRC. DRAWING NUMBER</u>	<u>DESCRIPTION</u>	<u>NATURE OF OBSTRUCTION</u>	<u>EST. % COMPLETE</u>
1-B33-0027	ISI-B33-001	16" Cap to Pipe	Geometry	Perpendicular 95%
1-B33-0038	ISI-B33-001	12" Pipe to Nozzle	Geometry	Perpendicular 50%
1-B33-0043	ISI-B33-001	12" Pipe to Nozzle	Geometry	Perpendicular 50%
1-B33-0049	ISI-B33-001	12" Pipe to Nozzle	Geometry	Perpendicular 50%
1-B33-0054	ISI-B33-001	12" Pipe to Nozzle	Geometry	Perpendicular 50%
1-B33-0056	ISI-B33-001	16" x 12" Sweepolet to 12" Pipe	Geometry	Perpendicular 50%
1-B33-0059	ISI-B33-001	12" Pipe to Nozzle	Geometry	Perpendicular 50%
1-B33-0074	ISI-B33-002	22" Elbow to Pump C001B	Geometry	Perpendicular 50%
1-B33-0076	ISI-B33-002	24" Pipe to Pump C001B	Geometry	Perpendicular 50%
1-B33-0081	ISI-B33-002	24" Valve F060B to Pipe	Geometry	Perpendicular 50%
1-B33-0088	ISI-B33-002	24" Pipe to 24 x 16" Cross	Geometry	Perpendicular 50%
1-B33-0097	ISI-B33-002	16" x 12" Sweepolet to 12" Pipe	Geometry	Perpendicular 50%
1-B33-0100	ISI-B33-002	12" Pipe to Nozzle	Geometry	Perpendicular 50%
1-B33-0105	ISI-B33-002	12" Pipe to Nozzle	Geometry	Perpendicular 50%
1-B33-0111	ISI-B33-002	12" Pipe to Nozzle	Geometry	Perpendicular 50%

PERRY NUCLEAR POWER PLANT UNIT 1
RELIEF REQUEST NO. IR-005

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<u>WELD I.D.</u>	<u>REACTOR RECIRC. DRAWING NUMBER</u>	<u>DESCPⁿ TION</u>	<u>NATURE OF OBSTRUCTION</u>	<u>EST. % COMPLETE</u>
1-B33-0116	ISI-B33-002	12" Pipe to Nozzle	Geometry	Perpendicular 50%
1-B33-0118	ISI-B33-002	16' x 12" Sweepolet to 12" Pipe	Geometry	Perpendicular 50%
1-B33-0121	ISI-B33-002	12" Pipe to Nozzle	Geometry	Perpendicular 50%

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-006

I. Identification of Components

Class 1, Category B-J, Item B9.12 (piping welds 4 inches NPS and greater), Weld 1-B33-0027U1 in reactor recirculation system (drawing ISI-B33-001).

II. ASME B&PV Section XI Requirements

Table IWB-2500-1 requires 100% surface and volumetric examination.

III. Relief Requested

Relief is requested from the required surface examinations, at the first and subsequent examinations as scheduled in Section 13 of the ISI Plan, to allow examination of only 90% of the required surface due to a pipe lug which prevents contact with 10% of the weld surface.

IV. Basis for Relief

The structural integrity of the piping pressure boundary was demonstrated during construction by meeting the requirements of the ASME Code Section III, and additionally by meeting the requirements of ASME Section XI during preservice inspections. The subject welds were examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. There were no reportable indications during preservice inspections.

The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988, without leakage indication attributable to the subject welds.

In addition to partial examination of the subject welds, complete examinations meeting the requirements of the ASME Code Section XI are performed on welds of similar configurations which utilize the same weld techniques, procedures and materials. The examined welds are subject to the same operating and environmental conditions as the partially examined welds.

Since the construction, operating conditions and environmental conditions of the non-examined portion of the welds are identical to the examined portions, it is reasonable to apply satisfactory results from examined to the non-examined portions.

Design, procurement and operational provisions against nil ductile failure of the subject welds remain as described in the Perry USAR.

Perry Nuclear Power Plant Unit 1
Relief Request #IR-006

In summary, because of acceptable initial conditions, successful code hydrotest and operating experience without related leakage indications, the capability to examine most of the subject weld surface on a continuing basis, the capability to detect pressure boundary leakage, and protection against brittle failure, it is concluded that there is no significant impact on the overall level of plant quality and safety.

V. Alternate Examination

None

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-007

I. Identification of Components

Class 1, Category B-K-1, Item No. B10.10 integrally welded support attachments for piping (See attached table for ID numbers).

II. ASME B&PV Section XI Requirements

Table IWB-2500-1 requires a 100% surface examination (volumetric is not applicable.)

III. Relief Requested

Relief is requested from the required 100% surface examination of the penetration to process pipe attachment welds due to inaccessibility of the weld face within the ID of the penetration. 50% of the required surface is accessible and will be examined at the first and subsequent inspections scheduled in Section 13 of the ISI Plan.

IV. Basis for Relief

The structural integrity of the piping pressure boundary was demonstrated during construction by meeting the requirements of the ASME Code Section III. The subject welds were examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines.

Examinations meeting the requirements of the ASME Code Section XI were performed on the accessible face of the attachment weld with acceptable results during preservice inspection.

Penetration attachment welds within the high energy break exclusion region of piping systems were ultrasonically examined from the OD surface of the penetration. Although not performed specifically to supplement the limited surface examinations, these examinations do provide additional assurance of structural integrity.

The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988.

Since the construction, operating conditions and environmental conditions of the non-examined portion of the welds are identical to the examined portions, it is reasonable to apply satisfactory results from examined to the non-examined portions.

Perry Nuclear Power Plant Unit 1
Relief Request #IR-007

Design, procurement and operational provisions against nil ductile failure of the subject welds remain as described in the Perry USAR.

In summary, because of acceptable initial condition, successful code hydrotest and operating experience, the capability to examine half of the subject weld surface on a continuing basis, and protection against brittle failure, it is concluded that there is no significant impact on the overall level of plant quality and safety.

V. Alternate Examination

None.

PERRY NUCLEAR POWER PLANT UNIT 1
RELIEF REQUEST #IR-007

<u>COMPONENT I.D.</u>	<u>SYSTEM*/DWG. NO.</u>
1-E12-P411-WA	RHR/ISI-E12-017
1-E12-P421-WA	RHR/ISI-E12-001
1-E12-PRB2035-WA	RHR/ISI-E12-018
1-E12-PRB2036-WA	RHR/ISI-E12-013
1-E12-PRB2044-WA	RHR/ISI-E12-007
1-E21-P112-WA	LPCS/ISI-E21-003
1-E21-PRB3046-WA	LPCS/ISI-E21-003
1-E22-P410-WA	HPCS/ISI-E22-002
1-E22-PRB3052-WA	HPCS/ISI-E22-002
1-E51-P123-WA	RCIC/ISI-E51-003
**1-E51-P422-WA	RCIC/ISI-E51-001
**1-N27-P121-WA	FW/ISI-N27-001
**1-N27-P414-WA	FW/ISI-N27-002
**1-G33-P131-WA	RWCU/ISI-G33-001
**1-N22-P423-WA	MS/ISI-N22-001
**1-B21-P122-WA	MS/ISI-B21-001
**1-B21-P124-WA	MS/ISI-B21-001
**1-B21-P415-WA	MS/ISI-B21-002
**1-B21-P416-WA	MS/ISI-B21-002

*RHR = Residual Heat Removal
LPCS = Low Pressure Core Spray
HPCS = High Pressure Core Spray
RCIC = Reactor Core Isolation Cooling
FW = Feedwater
RWCU = Reactor Water Cleanup
MS = Main Steam

**Received augmented ultrasonic examination as part of high energy break exclusion region.

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-008

I. Identification of Components

Class 1, Category B-M-1, Item number B12.40, valve body welds (see attached table for weld ID numbers).

II. ASME B&PV Section XI Requirements

Table IWB-2500-1 requires 100% volumetric examination.

III. Relief Requested

Relief is requested from the required 100% volumetric examinations because part geometry and code plate obstructions limit examination of required volume, at the first and subsequent examinations as scheduled in Section 13 of the ISI Plan.

IV. Basis for Relief

The structural integrity of the valve pressure boundary was demonstrated during construction by meeting the requirements of the ASME Code Section III, and additionally by meeting the requirements of ASME Section XI during preservice inspections. The subject welds were examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. There were no reportable indications during preservice inspections.

The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988, without leakage indication attributable to the subject welds.

Since the construction, operating conditions and environmental conditions of the non-examined portions of the welds are identical to the examined portions, it is reasonable to apply satisfactory results to the non-examined portions.

Design, procurement and operational provisions against nil ductile failure of the subject welds remain as described in the Perry USAR.

In summary, because of acceptable initial condition, successful code hydrotest and operating experience without related leakage indications, the capability to examine about 90% of the weld volume on a continuing basis, the capability to detect pressure boundary leakage (USAR 5.2.5), and protection against brittle failure, it is concluded that there is no significant impact on the overall level of plant quality and safety.

Perry Nuclear Power Plant Unit 1
Relief Request #IR-008

V. Alternate Examination

None

PERRY NUCLEAR POWER PLANT UNIT 1
RELIEF REQUEST NO. IR-008

PAGE 1 OF 1

<u>WELD I.D.</u>	<u>SYSTEM*/DWG. NO.</u>	<u>DESCRIPTION</u>	<u>NATURE OF OBSTRUCTION</u>	<u>EST. % COMPLETE</u>
1-E12-P019 SEAM	RHR/ISI-E12-028	6" Forged Check Vlv. Body Weld	Geometry/Code Plate	Perpendicular 92%
1-E12-P042A SEAM	RHR/ISI-E12-029	12" Forged Gate Vlv. Body Weld	Geometry/Code Plate	Perpendicular 90%
1-E21-P005 SEAM	LPCS/ISI-E21-005	12" Forged Gate Vlv. Body Weld	Geometry/Code Plate	Perpendicular 90%
1-E22-P036 SEAM	HPCS/ISI-E22-006	12" Forged Gate Vlv. Body Weld	Geometry/Code Plate	Perpendicular 90%
1-E51-P064 SEAM	RCIC/ISI-E51-005	10" Forged Gate Vlv. Body Weld	Geometry/Code Plate	Perpendicular 93%
1-E51-P013 SEAM	RCIC/ISI-E51-006	6" Forged Gate Vlv. Body Weld	Geometry/Code Plate	Perpendicular 94%
1-G33-P004 SEAM	RWCU/ISI-G33-007	6" Forged Gate Vlv. Body Weld	Geometry/Code Plate	Perpendicular 59%
1-G33-F100 SEAM	RWCU/ISI-G33-005	4" Forged Gate Vlv. Body Weld	Geometry/Code Plate	Perpendicular 92%

*RHR = Residual Heat Removal
LPCS = Low Pressure Core Spray
HPCS = High Pressure Core Spray
RCIC = Reactor Core Isolation Cooling
RWCU = Reactor Water Cleanup

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-009

I. Identification of Components

Class 1, Category B-0, Item B14.10, flange welds in control rod drive housing (See attached table for I.D. numbers and drawing ISI-B13-016).

II. ASME B&PV Section XI Requirements

Table IWB-2500-1 requires a 100% surface or volumetric examination.

III. Relief Requested

Relief is requested from the required 100% surface examination because of partial inaccessibility of the examination area due to control line interferences, at the first and subsequent examinations as scheduled in Section 13 of the ISI Plan. Approximately 85% of subject weld surface will be subjected to a dye penetrant examination.

IV. Basis for Relief

The structural integrity of the subject welds was demonstrated during construction by meeting the requirements of the ASME Code Section III, and additionally by meeting the requirements of ASME Section XI during preservice inspections. The subject welds were examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. The subject welds had no reportable indications during preservice inspection.

The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988 without leakage indication attributable to the subject welds.

Portions of welds examined are subject to the same operating and environmental conditions as the unexamined portions. Approximately 85% of weld surface will continue to be examined. It is, therefore, reasonable to apply the results from examined weld portions to the unexamined portions.

In summary, because of acceptable initial weld condition, successful code hydrotest and operating experience without leakage indications, the capability to examine most weld surface on a continuing basis, and the capability to detect pressure boundary leakage, it is concluded that there is no significant impact on the overall level of plant quality and safety.

Perry Nuclear Power Plant Unit 1
Relief Request #IR-009

V. Alternate Examination

None

PERRY NUCLEAR POWER PLANT UNIT 1
RELIEF REQUEST #IR-009

WELD I.D.

1-B13-02/23-FW
1-B13-02/27-FW
1-B13-02/31-FW
1-B13-02/35-FW
1-B13-02/39-FW
1-B13-06/15-FW
1-B13-06/47-FW
1-B13-10/11-FW
1-B13-10/51-FW
1-B13-14/07-FW
1-B13-14/55-FW
1-B13-22/03-FW
1-B13-22/59-FW
1-B13-26/03-FW
1-B13-26/59-FW
1-B13-30/03-FW

WELD I.D.

1-B13-30/59-FW
1-B13-34/03-FW
1-B13-34/59-FW
1-B13-38/03-FW
1-B13-38/59-FW
1-B13-46/07-FW
1-B13-46/55-FW
1-B13-50/11-FW
1-B13-50/51-FW
1-B13-54/15-FW
1-B13-54/47-FW
1-B13-58/23-FW
1-B13-58/27-FW
1-B13-58/31-FW
1-B13-58/35-FW
1-B13-58/39-FW

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-010

I. Identification of Components

Class 2, Category C-A, Item No. C1.20, pressure retaining shell cylinder-to-head weld number 1-E12-B001A-003 in Residual Heat Removal heat exchanger #B001A (Drawing ISI-E12-021).

II. ASME B&PV Section XI Requirements

Table IWC-2500-1 requires a 100% volumetric examination of the weld.

III. Relief Requested

Relief is requested from the required volumetric examination; because of seismic lug interferences only about 43% of weld volume (perpendicular scan) can be examined, at the first and subsequent examinations as scheduled in Section 13 of the ISI Plan.

IV. Basis for Relief

The structural integrity of the subject pressure boundary was demonstrated during construction by meeting the requirements of the ASME Code Section III, and additionally by meeting the requirements of ASME Section XI during preservice inspections. The weld was examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. There were no reportable indications during preservice inspection.

The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988, without leakage indication attributable to the subject weld.

Since the construction, operating conditions and environmental conditions of the non-examined portions of the welds are identical to the examined portions, it is reasonable to apply satisfactory results to the non-examined portions.

In summary, because of acceptable initial weld condition, successful code hydrotest and operating experience without related leakage indications, the capability to examine about 40% of weld volume on a continuing basis, and the capability to detect pressure boundary leakage, it is concluded that there is no significant impact on the overall level of plant quality and safety.

V. Alternate Examination

None

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-011

I. Identification of Components

Class 2, Category C-B, Item No. C2.21, inlet nozzle weld number 1-E12-B001A-004 in the residual heat removal heat exchanger shell head (Drawing ISI-E12-021).

II. ASME B&PV Section XI Requirements

Table IWC-2570-1, Item No. C2.20 requires a 100% surface and volumetric examination of the weld.

III. Relief Requested

Relief is requested from the required 100% volumetric examination of the subject weld, because instrumentation line obstructions limit examination to 95% of required volume, at the first and subsequent examinations as scheduled in Section 13 of the ISI Plan.

IV. Basis for Relief

The structural integrity of the subject pressure boundary was demonstrated during construction by meeting the requirements of the ASME Code Section III, and additionally by meeting the requirements of ASME Section XI during preservice inspections. The weld was examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. There were no reportable indications during preservice inspection.

The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988, without leakage indication attributable to the subject welds.

Since the construction, operating conditions and environmental conditions of the non-examined portion of the weld are identical to the examined portion (95%), it is reasonable to apply the satisfactory results to the non-examined portion.

In summary, because of acceptable initial condition, successful code hydrotest and operating experience without related leakage indications, the capability to examine about 95% of weld volume on a continuing basis, and the capability to detect pressure boundary leakage, it is concluded that there is no significant impact on the overall level of plant quality and safety.

V. Alternate Examination

None

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-012

I. Identification of Components

Class 2, Category C-C (Item and component numbers in attached table), integrally welded support attachments.

II. ASME B&PV Section XI Requirements

Table IWC-2500-1 requires a 100% surface examination.

III. Relief Requested

Relief is requested from the required surface examinations because of partial or complete inaccessibility of the examination area, at the first and subsequent examinations as scheduled in Section 13 of the ISI Plan.

IV. Basis for Relief

The structural integrity of the piping pressure boundary was demonstrated during construction by meeting the requirements of the ASME Code Section III, and additionally by meeting the requirements of ASME Section XI during preservice inspections. The subject welds were examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. There were no reportable indications during preservice inspections.

The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988, without leakage indication attributable to the subject welds.

Complete examinations meeting the requirements of the ASME Code Section XI will be performed on welds of similar configurations which utilized essentially similar weld techniques, procedures and materials. The examined welds are subject to the same operating and environmental conditions as the partially examined welds.

Since the construction, operating conditions and environmental conditions of the non-examined portion of the welds are identical to the examined portions, it is reasonable to apply satisfactory results from examined to the non-examined portions.

In summary, because of acceptable initial weld condition, successful code hydrotest and operating experience without related leakage indications, and the capability to examine most or similar weld surface on a continuing basis, it is concluded that there is no significant impact on the overall level of plant quality and safety.

Perry Nuclear Power Plant Unit 1
Relief Request #IR-012

V. Alternate Examination

None

PERRY NUCLEAR POWER PLANT UNIT 1
RELIEF REQUEST NO. IR-012

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<u>ITEM NO.</u>	<u>COMPONENT I.D.</u>	<u>SYSTEM*/DWG. NO.</u>	<u>DESCRIPTION</u>	<u>NATURE OF OBSTRUCTION</u>	<u>EJT. % COMPLETE</u>
C3.10	1-E12-B001A-SL1	RHR/ISI-E12-025	SEISMIC LUG	GEOMETRY	SURFACE 95%
C3.10	1-E12-B001A-SL2	RHR/ISI-E12-025	SEISMIC LUG	GEOMETRY	SURFACE 95%
C3.10	1-E12-B001A-SL3	RHR/ISI-E12-025	SEISMIC LUG	GEOMETRY	SURFACE 95%
C3.10	1-E12-B001A-SL4	RHR/ISI-E12-025	SEISMIC LUG	GEOMETRY	SURFACE 95%
C3.20	1-E22-H087-WA	HPCS/ISI-E22-004	WELDED ATTACHMENT	HANGER/CODE BAND AND DRAIN LINE INTER- FERENCES	SURFACE 85%
C3.20	1-E12-H173-WA	RHR/ISI-E12-001	WELDED ATTACHMENT	HANGER CLAMP INTER- FERENCE	SURFACE 90%
C3.20	1-E12-H789-WA	RHR/ISI-E12-002	WELDED ATTACHMENT	GEOMETRY	SURFACE 60%
C3.20	1-E12-H290-WA	RHR/ISI-E12-002	WELDED ATTACHMENT	GEOMETRY	SURFACE 60%
C3.20	1-E12-H359-WA	RHR/ISI-E12-009	WELDED ATTACHMENT	GEOMETRY	SURFACE 50%
C3.20	1-E12-H360-WA	RHR/ISI-E12-009	WELDED ATTACHMENT	GEOMETRY	SURFACE 50%
C3.20	1-E12-H368-WA	RHR/ISI-E12-009	WELDED ATTACHMENT	GEOMETRY	SURFACE 60%
C3.20	1-E12-H369-WA	RHR/ISI-E12-009	WELDED ATTACHMENT	GEOMETRY	SURFACE 60%
C3.20	1-N11-H221-WA	MS/ISI-B21-002	WELDED ATTACHMENT	SEISMIC RESTRAINT BLOCKS ACCESS	SURFACE 0%
C3.20	1-N11-H222-WA	MS/ISI-B21-002	WELDED ATTACHMENT	SEISMIC RESTRAINT BLOCKS ACCESS	SURFACE 0%

*MS = Main Steam
RHR = Residual Heat Removal
HPCS = High Pressure Core Spray
FW = Feedwater

PERRY NUCLEAR POWER PLANT UNIT 1
RELIEF REQUEST NO. IR-012

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<u>ITEM NO.</u>	<u>COMPONENT I.D.</u>	<u>SYSTEM*/DWG. NO.</u>	<u>DESCRIPTION</u>	<u>NATURE OF OBSTRUCTION</u>	<u>EST. % COMPLETE</u>
C3.20	1-N11-H223-WA	MS/ISI-B21-001	WELDED ATTACHMENT	SEISMIC RESTRAINT BLOCKS ACCESS	SURFACE 0%
C3.20	1-N11-H224-WA	MS/ISI-B21-001	WELDED ATTACHMENT	SEISMIC RESTRAINT BLOCKS ACCESS	SURFACE 0%
C3.20	1-N27-H031-WA	FW/ISI-N27-002	WELDED ATTACHMENT	SEISMIC RESTRAINT BLOCKS ACCESS	SURFACE 0%
C3.20	1-N27-H032-WA	FW/ISI-N27-001	WELDED ATTACHMENT	SEISMIC RESTRAINT BLOCKS ACCESS	SURFACE 0%

*MS = Main Steam
RHR = Residual Heat Removal
HPCS = High Pressure Core Spray
FW = Feedwater

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-013

I. Identification of Components

Class 2, Category C-G, Item C6.10, pump casing welds (See attached table for ID numbers).

II. ASME B&PV Section XI Requirements

Table IWC-2500-1 requires a 100X surface examination.

III. Relief Requested

Relief from the required surface examinations is requested because the pump barrel is below floor level making the welds inaccessible, at the first and subsequent examinations as scheduled in Section 13 of the ISI Plan. If any of the subject pumps are disassembled for repair or maintenance, with the pump barrel removed, accessible welds will be inspected at that time.

IV. Basis for Relief

The structural integrity of the subject pressure boundaries was demonstrated during construction by meeting the requirements of the ASME Code Section III, and additionally by meeting the requirements of ASME Section XI during preservice inspections. The subject welds were examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. The subject welds had no reportable indications during preservice inspections.

The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988, without leakage indication attributable to the subject welds.

In summary, because of acceptable initial weld condition, successful code hydrotest and operating experience without related leakage indication, it is concluded that there is no significant impact on the overall level of plant quality and safety.

V. Alternate Examination

None

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<u>WELD I.D.</u>	<u>SYSTEM*/DWG. NO.</u>	<u>DESCRIPTION</u>
1-E22-C001-001	HPCS/ISI-E22-005	Pump Head to Barrel Shell Weld
1-E22-C001-002	HPCS/ISI-E22-005	Pump Shell to Shell Weld
1-E22-C001-003	HPCS/ISI-E22-005	Pump Shell to Shell Weld
1-E22-C001-004	HPCS/ISI-E22-005	Pump Shell to Flange Weld
1-E22-C001-013	HPCS/ISI-E22-005	Pump Barrel Longseam
1-E22-C001-014	HPCS/ISI-E22-005	Pump Barrel Longseam
1-E22-C001-015	HPCS/ISI-E22-005	Pump Barrel Longseam
1-E21-C001-001	LPCS/ISI-E21-004	Pump Head to Barrel Shell Weld
1-E21-C001-002	LPCS/ISI-E21-004	Pump Shell to Shell Weld
1-E21-C001-003	LPCS/ISI-E21-004	Pump Shell to Flange Weld
1-E21-C001-012	LPCS/ISI-E21-004	Pump Shell to Shell Weld
1-E21-C001-013	LPCS/ISI-E21-004	Pump Barrel Longseam
1-E21-C001-014	LPCS/ISI-E21-004	Pump Barrel Longseam
1-E21-C001-015	LPCS/ISI-E21-004	Pump Barrel Longseam
1-E12-C002A-001	RHR/ISI-E12-026	Pump Head to Barrel Shell Weld
1-E12-C002A-002	RHR/ISI-E12-026	Pump Shell to Shell Weld
1-E12-C002A-003	RHR/ISI-E12-026	Pump Shell to Flange Weld

*HPCS = High Pressure Core Spray
LPCS = Low Pressure Core Spray
RHR = Residual Heat Removal

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<u>WELD I.D.</u>	<u>SYSTEM*/DWG. NO.</u>	<u>DESCRIPTION</u>
1-E12-C002A-012	RHR/ISI-E12-026	Pump Shell to Shell Weld
1-E12-C002A-013	RHR/ISI-E12-026	Pump Barrel Longseam
1-E12-C002A-014	RHR/ISI-E12-026	Pump Barrel Longseam
1-E12-C002A-015	RHR/ISI-E12-026	Pump Barrel Longseam
1-E12-C002C-001	RHR/ISI-E12-027	Pump Head to Barrel Shell Weld
1-E12-C002C-002	RHR/ISI-E12-027	Pump Shell to Shell Weld
1-E12-C002C-003	RHR/ISI-E12-027	Pump Shell to Flange Weld
1-E12-C002C-012	RHR/ISI-E12-027	Pump Shell to Shell Weld
1-E12-C002C-013	RHR/ISI-E12-027	Pump Barrel Longseam
1-E12-C002C-014	RHR/ISI-E12-027	Pump Barrel Longseam
1-E12-C002C-015	RHR/ISI-E12-027	Pump Barrel Longseam

*HPCS = High Pressure Core Spray
LPCS = Low Pressure Core Spray
RHR = Residual Heat Removal

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-014

I. Identification of Components

Class 2, Category C-G, Item No. C6.20, 6" high pressure core spray check valve, body weld number 1-E22-FO03-SEAM (Drawing IS1-E22-007).

II. ASME B&PV Section XI Requirements

Table IWC-2500-1 requires a 100% surface examination.

III. Relief Requested

Relief from the required surface examination is requested because a code plate partially obstructs about 5% of the examination area, at the first and subsequent examinations scheduled in Section 13 of the ISI Plan.

IV. Basis for Relief

The structural integrity of the valve pressure boundary was demonstrated during construction by meeting the requirements of the ASME Code Section III, and additionally by meeting the requirements of ASME Section XI during preservice inspections. The subject weld was examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. There were no reportable indications during preservice inspection.

The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988.

Since the construction, operating conditions and environmental conditions of the non-examined portion of the weld are identical to the examined portion, it is reasonable to apply satisfactory results to the non-examined portion.

Design, procurement and operational provisions against nil ductile failure of the subject welds remain as described in the Perry USAR.

In summary, because of acceptable initial condition, successful code hydrotest and operating experience, the capability to examine about 95% of the weld surface on a continuing basis, and protection against brittle failure, it is concluded that there is no significant impact on the overall level of plant quality and safety.

V. Alternate Examination

None

Perry Nuclear Power Plant Unit 1
Relief Request #IR-015

I. Identification of Components

Class 2, Category C-C, Item No. C3.20 integrally welded support attachments for piping (See attached table for ID numbers).

II. ASME B&PV Section XI Requirements

Table IWC-2500-1 requires a 100% surface examination.

III. Relief Requested

Relief is requested from the required 100% surface examination of the penetration to process pipe attachment welds due to inaccessibility of the weld face within the ID of the penetration. 50% of the required surface is accessible and will be examined at the first and subsequent inspections scheduled in Section 13 of the ISI Plan.

IV. Basis for Relief

The structural integrity of the piping pressure boundary was demonstrated during construction by meeting the requirements of the ASME Code Section III. The subject welds were examined in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements, and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines.

Examinations meeting the requirements of the ASME Code Section XI were performed on the accessible face of the attachment weld with acceptable results during preservice inspection.

Penetration attachment welds within the high energy break exclusion region of piping systems were ultrasonically examined from the OD surface of the penetration. Although not performed specifically to supplement the limited surface examinations, these examinations do provide additional assurance of structural integrity.

The pressure boundary passed the required hydrostatic test, and has operated for a total of about 250 equivalent full power days between November 1987 and November 1988.

Since the construction, operating conditions and environmental conditions of the non-examined portion of the welds are identical to the examined portions, it is reasonable to apply satisfactory results from examined to the non-examined portions.

Perry Nuclear Power Plant Unit 1
Relief Request #IR-015

Design, procurement and operational provisions against nil ductile failure of the subject welds remain as described in the Perry USAR.

In summary, because of acceptable initial condition, successful code hydrotest and operating experience, the capability to examine half of the subject weld surface on a continuing basis, and protection against brittle failure, it is concluded that there is no significant impact on the overall level of plant quality and safety.

V. Alternate Examination

None.

PERRY NUCLEAR POWER PLANT UNIT 1
RELIEF REQUEST #IR-015

<u>COMPONENT I.D.</u>	<u>SYSTEM*</u>
**1G33-P132-WA	RVCU
1E12-P105-WA	RHR
1E12-P407-WA	RHP
1E21-P113-WA	LPCI
1E21-P412-WA	LPCI

*RVCU = Reactor Water Cleanup
RnR = Residual Heat Removal
LPCI = Low Pressure Coolant Injection

**Received augmented ultrasonic examination as part of high energy break exclusion region.