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

Perry Nuclear Power Plant
Docket No. 50-440
Inservice Examination Program (ISEP)
Relief Requests

Gentlemen:

Pursuant to 10CFR50.55a(g)(5), we hereby submit eight (8) relief requests for the PNPP Unit 1 Inservice Examination Program (ISEP) generated upon completion of PNPP's second refueling outage. Five of the relief requests are revisions to those previously submitted, two of which were previously granted by the NRC on April 25, 1990 concurrent with the approval of PNPP's first 10 year interval inservice inspection plan. The remaining three relief requests are new submittals. Attachment 1 contains a summary of the proposed relief requests. The relief requests are provided in Attachment 2.

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

Sincerely,

M. D. Lyster

Michael D. Lyster

MDL:CJF:njc

Attachments

cc: NRC Project Manager
NRC Resident Inspector Office
NRC Region III
EG&G Idaho, Inc.
W. Zimmerman (ANII)
J. Harris (State of Ohio)

Operating Companies
Cleveland Electric Illuminating
Toledo Edison

Summary of Proposed PNPP Inservice Examination Program Relief Requests

Relief Request Number	Status	Description of Revision or New Relief Request
IR-004, Rev. 1	Rev. 0 submitted to NRR by PY-CEI/NRR-0919L dated 11-18-88 and granted by NRR on 4-25-90	Updated narrative, deleted one component from the table and added one component to the table.
IR-012, Rev. 1	Rev. 0 submitted to NRR by PY-CEI/NRR-0919L dated 11-18-88 and granted by NRR on 4-25-90	Updated narrative, deleted six components from the table (for which alternative exams are now proposed in IR-026) and added four components to the table.
IR-018, Rev. 1	Rev. 0 submitted to NRR by PY-CEI/NRR-1078L dated 11-17-89	Updated narrative and added six components to the table.
IR-021, Rev. 1	Rev. 0 submitted to NRR by PY-CEI/NRR-1078L dated 11-17-89	Updated narrative, revised completion percentage for one component in the table and added eleven components to the table.
IR-022, Rev. 1	Rev. 0 submitted to NRR by PY-CEI/NRR-1078L dated 11-17-89	Updated narrative and added seventeen components to the table.
IR-024, Rev. 0	New Relief Request	Relief for six RPV nozzle safe-end to safe-end extension welds which received limited exams due to metallurgy and joint geometry.
IR-025, Rev. 0	New Relief Request	Proposed alternative visual exams for support lug to process pipe attachment welds for four Class One Main Steam guide supports.
IR-026, Rev. 0	New Relief Request	Proposed alternative visual exams for support lug to process pipe attachment welds for six Class Two Main Steam and Feedwater guide supports.

NJC/CODED/4539

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST IR-004, REV. 1

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 2.6 of Section ISEP.

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 preservice hydrostatic test and first period inservice system pressure tests, and has operated for a total of about 712 equivalent full power days between November 1987 and December 1990 without leakage indication attributable to the subject welds. 1

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 the 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, REV. 1

In summary, because of acceptable initial condition, successful test and operating experience, the capability to examine most of the subject weld volumes 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.

NOTE: Revision 0 of this Relief Request was granted by NRR in a Safety Evaluation dated April 25, 1990.

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

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
B9.11	1B21-0025	MS/605-103	Contour Nozzle to Flange	Joint Geometry	Perpendicular 50%, Parallel 100%
B9.11	1B21-0122U	MS/605-101	26" Elbow Seam, Upstream	Adjacent Branch Connection	Perpendicular & Parallel 90%
B9.11	1B21-0133	MS/605-101	Contour Nozzle to Flange	Joint Geometry	Perpendicular 50%, Parallel 100%
B9.11	1E12-0406	RHR/642-125	12" Pipe to Valve	Structural Steel Interference	Perpendicular 50%, Parallel 100%
B9.11	1E12-0880	RHR/642-143	12" Process Pipe to Elbow	Containment Penetration & Weld Geometry	Perpendicular 80%, Parallel 100%
B9.11	1E22-0012	HPCS/701-111	12" Elbow to Penetration	Joint Geometry	Perpendicular 95%, Parallel 100%
B9.12	1B33-0027U	RR/602-101	16" Pipe Seam	Lug Interference	Perpendicular & Parallel 92%
B9.11	1E21-0007	LPCS/705-111	12" Pipe to Elbow	Non-Removable Support 1E21-H0003	Perpendicular & Parallel 80%

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

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

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 100% surface examinations because of partial inaccessibility of the examination area, at the first and subsequent examinations as scheduled in Section 3.6 of the ISEP.

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. 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 ASME Section XI preservice inspections. 1

The pressure boundary passed the required hydrostatic test and first period inservice system pressure tests, and has operated for a total of about 712 equivalent full power days between November 1987 and December 1990, without leakage indication attributable to the subject welds. 1

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 essentially similar weld techniques, procedures and materials. The examined welds are subject to the same operating and environmental conditions as the partially examined welds. 1

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 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. 1

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

In summary, because of acceptable initial condition, successful test and operating experience, the capability to examine at least 50% of the weld surfaces 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. Δ

V. Alternate Examination

No.

NOTE: Revision 0 of this relief request was granted by NRR in a Safety Evaluation dated April 25, 1990. Δ

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

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
C3.10	1-E12-B001A-SL1	641-121	SEISMIC LUG	GEOMETRY	SURFACE 95%
C3.10	1-E12-B001A-SL2	641-121	SEISMIC LUG	GEOMETRY	SURFACE 95%
C3.10	1-E12-B001A-SL3	641-121	SEISMIC LUG	GEOMETRY	SURFACE 95%
C3.10	1-E12-B001A-SL4	641-121	SEISMIC LUG	GEOMETRY	SURFACE 95%
C3.20	1-E22-H087-WA	701-113	WELDED ATTACHMENT	HANGER/CODE BAND AND DRAIN LINE INTERFERENCES	SURFACE 95%
C3.20	1-E12-H289-WA	641-121	WELDED ATTACHMENT	GEOMETRY	SURFACE 60%
C3.20	1-E12-H290-WA	641-121	WELDED ATTACHMENT	GEOMETRY	SURFACE 60%
C3.20	1-E12-H359-WA	642-116	WELDED ATTACHMENT	GEOMETRY	SURFACE 50%
C3.20	1-E12-H360-WA	642-116	WELDED ATTACHMENT	GEOMETRY	SURFACE 50%
C3.20	1-E12-H368-WA	642-114	WELDED ATTACHMENT	GEOMETRY	SURFACE 60%
C3.20	1-E12-H369-WA	642-114	WELDED ATTACHMENT	GEOMETRY	SURFACE 60%

E12 - Residual Heat Removal
E22 - High Pressure Core Spray

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

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
C3.30	1-E51-C001-A-WA	631-109	WELDED PUMP CASING SUPPORT BRACKET	PUMP PEDESTAL BLOCKS ACCESS	83%
C3.30	1-E51-C001-B-WA	631-109	WELDED PUMP CASING SUPPORT BRACKET	PUMP PEDESTAL BLOCKS ACCESS	83%
C3.30	1-E51-C001-C-WA	631-109	WELDED PUMP CASING SUPPORT BRACKET	PUMP PEDESTAL BLOCKS ACCESS	83%
C3.30	1-E51-C001-C-WA	631-109	WELDED PUMP CASING SUPPORT BRACKET	PUMP PEDESTAL BLOCKS ACCESS	83%

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E51 - Reactor Core Isolation Cooling

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-018, REV. 1

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 support lug to process pipe attachment welds due to inaccessibility of the weld face at the pipe clamp or box guide to support lug interface. At least 65% of the required surface is accessible and was examined during the first period, or will be examined during subsequent periods, as scheduled in Section 2.6 of the ISEP. 

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.

The pressure boundary passed the required preservice hydrostatic test and first period inservice system pressure tests, and has operated for a total of about 712 equivalent full power days between November 1987 and December 1990. 

Complete examinations meeting the requirements of the ASME Code Section XI are performed on welds of similar configurations which utilized 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 the 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-018, REV. 1

In summary, because of acceptable initial condition, successful test and operating experience, the capability to examine at least 65% of the subject weld surfaces 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. 1

V. Alternate Examination

None

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-018, REV. 1

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE	
B10.10	1E12-H0100-WA	RHR/SS-305-642-117	Welded lugs for pipe clamp	Pipe Clamp	90%	
B10.10	1B33-H305A-WA	RR/SS-305-602-102	Welded lugs for pipe clamp	Pipe Clamp	75%	⚠
B10.10	1B33-H306A-WA	RR/SS-305-602-102	Welded lugs for pipe clamp	Pipe Clamp	75%	
B10.10	1B33-H305B-WA	RR/SS-305-602-104	Welded lugs for pipe clamp	Pipe Clamp	75%	
B10.10	1B33-H306B-WA	RR/SS-305-602-104	Welded lugs for pipe clamp	Pipe Clamp	75%	
B10.10	1N27-H0029-WA	FW/SS-305-082-102	Welded lugs for box guide	Box Guide	65%	
B10.10	1N27-H0030-WA	FW/SS-305-082-105	Welded lugs for box guide	Box Guide	65%	

RHR - Residual Heat Removal
RR - Reactor Recirculation
FW - Feedwater

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-021, REV. 1

I. Identification of Components

Class 3, Category D-B, Integral Attachments: Component supports and restraints. (See attached table for component identification).

II. ASME B&PV Section XI Requirements

Table IWD-2500-1 requires a VT-3 visual examination.

III. Relief Requested

Relief is requested from the required visual examinations due to the inaccessibility of the components.

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. All welds were inspected 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.

Complete examinations meeting the requirements of the ASME Code Section XI are performed on integral attachments with similar configurations which utilized the same weld techniques, procedures and materials.

Since the construction and operating conditions of the inaccessible welded attachments are similar to that of welded attachments that were examined, it is reasonable to extend the satisfactory results of the accessible integral attachments to the inaccessible ones. 1

The pressure boundary passed the required preservice hydrostatic test and first period inservice system pressure tests, and the plant has operated for a total of about 712 equivalent full power days between November 1987 and December 1990. 1

In summary, because of acceptable initial condition, successful examinations of similar components, and successful test and operating experience, it is concluded that there is no significant impact on the overall level of plant quality and safety. 1

V. Alternate Examination

No.

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-021, REV. 1

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
D2.20	1B21-HD050-WA	Main Steam SS-305-605-115	Welded Lugs for Pipe Support	Underwater, Geometry	0%
D2.20	1B21-HD157-WA	Main Steam SS-305-605-127	Welded Lugs for Pipe Support	Underwater, Geometry	0%
D2.20	1B21-HD167-WA	Main Steam SS-305-605-126	Welded Lugs for Pipe Support	Underwater, Geometry	0%
D2.20	1B21-HD179-WA	Main Steam SS-305-605-124	Welded Lugs for Pipe Support	Underwater, Geometry	0%
D2.20	1P42-HD221-WA	Emer. Closed Cool. SS-305-621-104	Welded Lugs for Pipe Support	Lugs in Pene. Filled w/Sealant	0%
D2.20	1P45-HD643-WA	Emer. Service Wtr. SS-305-791-110	Welded Lugs for Pipe Support	Lugs in Pene. Filled w/Grout	0%
D2.20	2P42-HD009-WA	Emer. Closed Cool. SS-305-623-106	Welded Lugs for Pipe Support	Two of Eight Lugs in Penetration Filled w/Sealant	75%
D2.20	1B21-HD176-WA	Main Steam SS-305-605-130	Welded Lugs for Pipe Support	Underwater, Geometry	0%
D2.20	1B21-HD128-WA	Main Steam SS-305-605-129	Welded Lugs for Pipe Support	Underwater, Geometry	0%
D2.20	1B21-HD156-WA	Main Steam SS-305-605-128	Welded Lugs for Pipe Support	Underwater, Geometry	0%

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-021, REV. 1

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
B2.20	1B21-HD158-WA	Main Steam SS-305-605-125	Welded Lugs for Pipe Support	Underwater, Geometry	0%
B2.20	1B21-HD173-WA	Main Steam SS-305-605-123	Welded Lugs for Pipe Support	Underwater, Geometry	0%
B2.20	1B21-HD175-WA	Main Steam SS-305-605-133	Welded Lugs for Pipe Support	Underwater, Geometry	0%
B2.20	1B21-HD155-WA	Main Steam SS-305-605-112	Welded Lugs for Pipe Support	Underwater, Geometry	0%
B2.20	1B21-HD168-WA	Main Steam SS-305-605-113	Welded Lugs for Pipe Support	Underwater, Geometry	0%
B2.20	1B21-HD120-WA	Main Steam SS-305-605-114	Welded Lugs for Pipe Support	Underwater, Geometry	0%
B2.20	1B21-HD159-WA	Main Steam SS-305-605-121	Welded Lugs for Pipe Support	Underwater, Geometry	0%
B2.20	1B21-HD160-WA	Main Steam SS-305-605-120	Welded Lugs for Pipe Support	Underwater, Geometry	0%
B2.20	1B21-HD186-WA	Main Steam19 SS-305-605-119	Welded Lugs for Pipe Support	Underwater, Geometry	0%
B2.20	1B21-HD177-WA	Main Steam SS-305-605-118	Welded Lugs for Pipe Support	Underwater, Geometry	0%

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-021, REV. 1

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
D2.20	1B21-H0163-WA	Main Steam SS-305-605-117	Welded Lugs for Pipe Support	Underwater, Geometry	0%
D2.20	1B21-H0164-WA	Main Steam SS-305-605-116	Welded Lugs for Pipe Support	Underwater, Geometry	0%
D2.20	1G41-H0396-WA	Fuel Pool Cleaning SS-305-655-114	Welded Lugs for Pipe Support	Lugs in Pene. Filled w/Sealant	0%
D2.20	1P42-H0115-WA	Emer. Closed Cool. SS-305-621-107	Welded Lugs for Pipe Support	Two of four Lugs in Pene. Filled w/Sealant	50%
D2.20	1P42-H0222-WA	Emer. Closed Cool. SS-305-621-104	Welded Lugs for Pipe Support	Lugs in Pene. Filled w/Sealant	0%
D2.20	1P45-H0022-WA	Emer. Service Wtr. SS-305-792-106	Welded Stanchion of Pipe Support	Stanchion in Pene. Filled w/Sealant	0%
D2.20	1P45-H0049-WA	Emer. Service Wtr. SS-305-792-112	Welded Sleeve of Pipe Support	Sleeve in Pene. Filled w/Sealant	0%
D2.20	1P45-H0127-WA	Emer. Service Wtr. SS-305-792-107	Welded Lugs for Pipe Support	Lugs in Pene. Filled w/Sealant	0%
D2.20	1P45-H0191-WA	Emer. Service Wtr. SS-305-791-113	Welded Lugs for Pipe Support	Lugs in Pene. Filled w/Sealant	0%

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-021, REV. 1

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
D2.20	1P45-H0271-WA	Emer. Service Wtr. SS-305-791-104	Welded Lugs for Pipe Support	Lugs in Pene. Filled w/Sealant	0%
D2.20	1P45-H0417-WA	Emer. Service Wtr. SS-305-791-101	Welded Lugs for Pipe Support	Lugs in Pene. Filled w/Sealant	0%
D2.20	2P42-H0024-WA	Emer. Closed Cool. SS-305-623-112	Welded Lugs for Pipe Support	Two of Six Lugs in Pene. Filled w/Sealant	66%
D2.20	2P42-H0025-WA	Emer. Closed Cool. SS-305-623-110	Welded Lugs for Pipe Support	Two of Six Lugs in Pene Filled w/Sealant	66%

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-022, REV. 1

I. Identification of Components

Class 3, Category F-A, Item F3.10, Component Supports. (See attached table for component identification).

II. ASME B&PV Section XI Requirements

Table IWF-2500-1 requires a VT-3 visual examination.

III. Relief Requested

Relief is requested on that portion of the component that cannot be subjected to the required visual examination. (See attached table for amount of component that is accessible).

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. All supports were inspected 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.

Complete examinations meeting the requirements of the ASME Code Section XI are performed on supports adjacent to the inaccessible supports. 

Since the construction and operating conditions of the inaccessible supports are similar to those of supports that were examined, it is reasonable to extend the satisfactory results of the accessible supports to the inaccessible supports. 

The pressure boundary passed the required preservice hydrostatic test and first period inservice system pressure tests, and the plant has operated for a total of about 712 equivalent full power days between November 1987 and December 1990. 

In summary, because of acceptable initial condition, successful examinations of adjacent supports, and successful test and operating experience, it is concluded that there is no significant impact on the overall level of plant quality and safety. 

V. Alternate Examination

No.

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-022, REV. 1

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
F3.10	1B21-H0050	Main Steam SS-305-605-115	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-H0157	Main Steam SS-305-605-115	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-H0167	Main Steam SS-305-605-115	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-H0179	Main Steam SS-305-605-115	Pipe Guide	Underwater, Geometry	0%
F1.10	1E12-H0476	RHR, SS-305-605-124	Pipe Guide	Guide in Pen. Filled w/Sealant	25%
F3.10	1P42-H0221	Emer. Closed Cool. SS-305-621-104	Pipe Guide	Guide in Pen. Filled w/Sealant	0%
F3.10	1P45-H0643	Emer. Service Wtr. SS-305-791-110	Pipe Guide	Guide in Pen. Filled w/Grout	0%
F3.10	2P42-H0009	Emer. Closed Cool. SS-305-623-106	Pipe Guide	Guide Partially in Penetration Filled w/Sealant	75%
F3.10	1B21-H0176	Main Steam SS-305-605-130	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-H0128	Main Steam SS-205-605-129	Pipe Guide	Underwater, Geometry	0%

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-022, REV. 1

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
F3.10	1B21-HD156	Main Steam SS-305-605-128	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-HD158	Main Steam SS-305-605-125	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-HD173	Main Steam SS-305-605-123	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-HD175	Main Steam SS-305-605-122	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-HD155	Main Steam SS-305-605-112	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-HD168	Main Steam SS-305-605-113	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-HD120	Main Steam SS-305-605-114	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-HD159	Main Steam SS-305-605-121	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-HD160	Main Steam SS-305-605-120	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-HD186	Main Steam SS-305-605-119	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-HD177	Main Steam SS-305-605-118	Pipe Guide	Underwater, Geometry	0%

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-022, Rev. 1

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
F3.10	1E21-H0163	Main Steam SS-305-605-117	Pipe Guide	Underwater, Geometry	0%
F3.10	1B21-H0164	Main Steam SS-305-605-116	Pipe Guide	Underwater, Geometry	0%
F3.10	1G41-H0396	Fuel Pool Cleaning SS-305-655-114	Pipe Guide	Guide in Pen. Filled w/Sealant	0%
F3.10	1P42-H0115	Emer. Closed Cool. SS-305-621-107	Pipe Guide	Guide Partially in Pen. Filled w/Sealant	50%
F3.10	1P42-H0222	Emer. Closed Cool. SS-305-621-104	Pipe Guide	Guide in Pen. Filled w/Sealant	0%
F3.10	1P45-H0022	Emer. Service Wtr. SS-305-792-106	Pipe Anchor	Anchor in Pen. Filled w/Sealant	0%
F3.10	1P45-H0049	Emer. Service Wtr. SS-305-792-112	Pipe Anchor	Anchor in Pen. Filled w/Sealant	0%
F3.10	1P45-H0127	Emer. Service Wtr. SS-305-792-107	Pipe Anchor	Anchor in Pen. Filled w/Sealant	0%
F3.10	1P45-H0162	Emer. Service Wtr. SS-305-792-104	Pipe Guide	Guide in Pen. Filled w/Sealant	0%
F3.10	1P45-H0191	Emer. Service Wtr. SS-305-791-113	Pipe Guide	Guide in Pen. Filled w/Sealant	0%

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-022, REV. 1

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
F3.10	1P45-H0271	Emer. Service Wtr. SS-305-791-104	Pipe Guide	Guide in Pen. Filled w/Sealant	0%
F3.10	1P45-H0397	Emer. Service Wtr. SS-305-791-108	Pipe Guide	Underwater in Limited Access Sump	0%
F3.10	1P45-H0398	Emer. Service Wtr. SS-305-791-108	Pipe Guide	Underwater in Limited Access Sump	0%
F3.10	1P45-H0399	Emer. Service Wtr. SS-305-791-109	Pipe Guide	Underwater in Limited Access Sump	0%
F3.10	1P45-H0400	Emer. Service Wtr. SS-305-791-109	Pipe Guide	Underwater in Limited Access Sump	0%
F3.10	1P45-H0417	Emer. Service Wtr. SS-305-791-101	Pipe Guide	Guide in Pen. Filled w/Sealant	0%
F3.10	1P45-H0430	Emer. Service Wtr. SS-305-791-102	Pipe Guide	Guide in Pen. Filled w/Sealant	0%
F3.10	2P42-H0024	Emer. Closed Cool. SS-305-623-112	Pipe Guide	Guide Partially in Pene. Filled w/Sealant	66%
F3.10	2P42-H0025	Emer. Closed Cool. SS-305-623-110	Pipe Guide	Guide Partially in Pene. Filled w/Sealant	66%

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-024

I. Identification of Components

Class 1, Category B-F, Item B5.10, Pressure Retaining Dissimilar Metal Welds (see attached table for ID 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 100% volumetric examination, at the first and subsequent examinations as scheduled in Section 2.6 of the ISEP.

IV. Basis for Relief

Safe-end to safe-end extension welds of the Core Spray and Residual Heat Removal nozzles, which are inconel to carbon steel bimetallic welds, can not be effectively ultrasonically examined using conventional shear wave techniques.

To overcome the metallurgical properties impeding the conventional shear wave ultrasonic transmission, refracted longitudinal wave examinations are employed. The acoustic properties of refracted longitudinal wave propagation limit the technique to 1/2 vee path. The Code required volume necessitates either 1/2 vee path scanning from both sides of the weld or full vee path scanning from one side through the weld and required volume. Therefore, when joint geometry precludes adequate scan paths on both sides of a weld for 1/2 vee scanning, the perpendicular examination of the weld and required volume will be limited. For the subject safe-end to safe-end extension welds, a safe-end taper limits scanning from one side of the weld to approximately 60% resulting in an overall perpendicular examination completion percentage of approximately 80% (see Fig. IR-024.1 below).

The structural integrity of the piping pressure boundary was demonstrated during construction by meeting the requirements of 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. There were no reportable indications during ASME Section XI preservice inspections.

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-024

The pressure boundary passed the required preservice hydrostatic test and first period inservice system pressure tests, and has operated for a total of about 712 equivalent full power days between November 1987 and December 1990.

Although the examinations are limited, the most critical areas of the weld and required volume are adequately covered. The root of the weld receives full two directional coverage and both the heat affected zones receive coverage which is essentially perpendicular to the end preparation.

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 the 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.

In summary, because of acceptable initial condition, successful test and operating experience, the capability to examine most of the subject weld volumes 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.

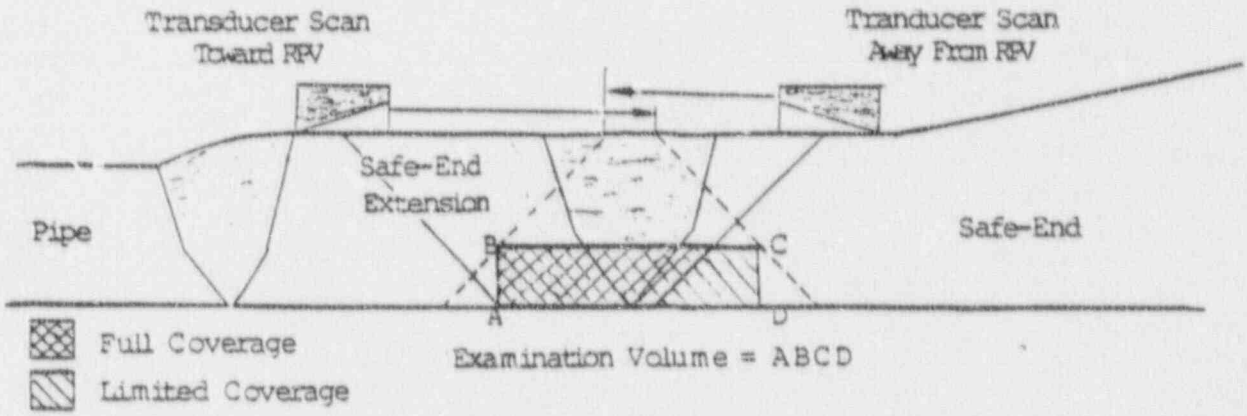

FIGURE IR-024-1

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-024

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
B5.10	1B13-N5A-KC	RX/SS-305-006-109	LPCS Nozzle safe-end to safe-end extension	Joint Geometry/ Metallurgy	80% Perpendicular 100% Parallel
B5.10	1B13-N5B-KC	RX/SS-305-006-109	HPCS Nozzle safe-end to safe-end extension	Joint Geometry/ Metallurgy	80% Perpendicular 100% Parallel
B5.10	1B13-N6A-KC	RX/SS-305-005-109	RHR nozzle safe-end to safe-end extension	Joint Geometry/ Metallurgy	80% Perpendicular 100% Parallel
B5.10	1B13-N6B-KC	RX/SS-305-005-109	RHR nozzle safe-end to safe-end extension	Joint Geometry/ Metallurgy	80% Perpendicular 100% Parallel
B5.10	1B13-N6C-KC	RX/SS-305-005-109	RHR nozzle safe-end to safe-end extension	Joint Geometry/ Metallurgy	80% Perpendicular 100% Parallel

RX - Reactor Vessel
LPCS - Low Pressure Core Spray
HPCS - High Pressure Core Spray
RHR - Residual Heat Removal

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-025

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 support lug to process pipe attachment welds because access limitations from the surrounding guide structure prohibit surface preparation and examination of the attachment welds without disassembly of the guide.

IV. Basis for Relief

The welded attachments identified in the attached table are pipe lugs within large and complicated guide supports for the 26" main steam piping. Disassembly (and the subsequent reassembly) of the guides to provide access for the required surface exams requires over 320 manhours for each guide in a general radiation area of approximately 10 mr/hr. Without disassembly, access is sufficient for VT-1 examination (utilizing mirrors and a fiberscope) of the welds. Utilization of the VT-1 exams in lieu of surface exams maintains an adequate level of quality and safety without the hardships which would be incurred in disassembly.

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.

The pressure boundary passed the required preservice hydrostatic test and first period inservice system pressure tests, and has operated for a total of about 712 equivalent full power days between November 1987 and December 1990.

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-025

In summary, because of acceptable initial condition, successful test and operating experience, the capability to visually examine the subject weld surfaces 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

VT-1 examinations will be performed, to the extent and frequency required by Table IWB-2500-1, in lieu of surface examinations.

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-025

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
B10.10	1B21-G101A-WA	MS/SS-305-605-101	Welded lugs for pipe guide	Guide Assembly	0%*
B10.10	1B21-G101B-WA	MS/SS-305-605-102	Welded lugs for pipe guide	Guide Assembly	0%*
B10.10	1B21-G101C-WA	MS/SS-305-605-103	Welded lugs for pipe guide	Guide Assembly	0%*
B10.10	1B21-G101D-WA	MS/SS-305-605-104	Welded lugs for pipe guide	Guide Assembly	0%*

* 0% complete for required surface examination, but essentially 100% complete for alternative VT-1 examination.

MS - Main Steam

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-026

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 (volumetric is not applicable).

III. Relief Requested

Relief is requested from the required 100% surface examination of the support lug to process pipe attachment welds because access limitations from the surrounding guide structure prohibit surface preparation and examination of the attachment welds without disassembly of the guide.

IV. Basis for Relief

The welded attachments identified in the attached table are pipe lugs within large and complicated guide supports for 26" main steam and 20" feedwater piping. Disassembly (and the subsequent reassembly) of the guides to provide access for the required surface exams requires over 320 manhours for each guide in a general radiation area of approximately 5 mr/hr. Without disassembly, access is sufficient for VT-1 examination (utilizing mirrors and a fiberscope) of the welds. Utilization of the VT-1 exams in lieu of surface exams maintains an adequate level of quality and safety without the hardships which would be incurred in disassembly.

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.

The pressure boundary passed the required preservice hydrostatic test and first period inservice system pressure tests, and has operated for a total of about 712 equivalent full power days between November 1987 and December 1990.

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-026

In summary, because of acceptable initial condition, successful test and operating experience, the capability to visually examine the subject weld surfaces 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

VT-1 examinations will be performed, to the extent and frequency required by Table IWC-2500-1, in lieu of surface examinations.

NOTE: Relief from the subject surface examinations, without performance of an alternative visual examination, was previously requested in Relief Request IR-012, Rev. 0, and granted by NRR in a Safety Evaluation dated April 25, 1990.

Perry Nuclear Power Plant Unit 1
RELIEF REQUEST #IR-026

ITEM NO.	COMPONENT I.D.	SYS./DWG. NO.	DESCRIPTION	NATURE OF OBSTRUCTION	EST % COMPLETE
C3.20	1N11-H0221-WA	MS/SS-305-605-108	Welded lugs for pipe guide	Guide Assembly	0%*
C3.20	1N11-H0222-WA	MS/SS-305-605-110	Welded lugs for pipe guide	Guide Assembly	0%*
C3.20	1N11-H0223-WA	MS/SS-305-605-107	Welded lugs for pipe guide	Guide Assembly	0%*
C3.20	1N11-H0224-WA	MS/SS-305-605-109	Welded lugs for pipe guide	Guide Assembly	0%*
C3.20	1N27-H0031-WA	FW/SS-305-082-104	Welded lugs for pipe guide	Guide Assembly	0%*
C3.20	1N27-H0032-WA	FW/SS-305-082-101	Welded lugs for pipe guide	Guide Assembly	0%*

* 0% complete for required surface examination, but essentially 100% complete for alternative VT-1 examination.

MS - Main Steam
FW - Feedwater