



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
OF THE FIRST TEN-YEAR INTERVAL INSERVICE INSPECTION RELIEF REQUESTS

CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL.
PERRY NUCLEAR POWER PLANT, UNIT 1
DOCKET NO. 50-440

I. INTRODUCTION

Technical Specification 4.0.5 for the Perry Nuclear Power Plant, Unit 1, states that inservice inspection (ISI) of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Code and applicable Addenda as required by 10 CFR 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i). 10 CFR 50.55a(a)(3) states that alternatives to the requirements of paragraph (g) may be used if (1) the proposed alternatives would provide an acceptable level of quality and safety, or (2) compliance with the specified requirements would result in hardship or unusual difficulties without a compensating increase in the level of quality and safety.

Pursuant to 10 CFR 50.55a(g)(5), if the licensee determines that conformance with an examination requirement of Section XI of the ASME Code is not practical for his facility, information shall be submitted to the Commission in support of that determination and a request made for relief from the ASME Code requirement. After evaluation of the determination, pursuant to 10 CFR 50.55a(g)(6)(i), the Commission may grant relief and may impose alternative requirements that are determined to be authorized by law, will not endanger life, property, or the common defense and security, and are otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed.

By letter dated November 17, 1989, the Cleveland Electric Illuminating Company (the Licensee) submitted eleven requests for relief from ASME Code Section XI requirements which the Licensee has determined to be impractical for the first 10-year inspection interval.

The information in the November 17, 1989 submittal was reviewed. In a letter dated June 13, 1990, the staff requested additional information that was required in order to complete the review of the eleven relief requests. Additional information was submitted by the Licensee in letters dated August 10, 1990 and October 10, 1990.

By letter dated March 19, 1991, the Licensee submitted eight relief requests generated upon completion of the Perry, Unit 1, second refueling outage. Five of these relief requests were revisions of those previously submitted, two of which were previously granted by the NRC staff on April 25, 1990, concurrent with the approval of the first 10-year interval inservice inspection program plan. The remaining three requests for relief were new submittals.

The staff, with technical assistance from its Contractor, the Idaho National Engineering Laboratory (INEL), has evaluated these requests for relief from certain ASME Code requirements determined to be impractical for the Perry Nuclear Power Plant, Unit 1, during the first inspection interval.

II. EVALUATION

The information provided by the Licensee in support of the requests for relief from impractical requirements has been evaluated and the bases for granting relief from those requirements are documented below. Unless otherwise stated, reference to the Code refers to the ASME Code, Section XI, 1983 Edition, Summer 1983 Addenda. Specific inservice test (IST) relief requests for pumps, valves, and snubbers are being evaluated in other reports.

A. Request for Relief IR-004 (Rev. 1), Examination Category B-J, Items B9.11 and B9.12, Class 1 Pressure Retaining Piping Welds

NOTE: Request for Relief IR-004 (Rev. 0) was originally evaluated and granted by the NRC in a Safety Evaluation Report dated April 25, 1990. Revision 1, submitted March 19, 1991, provided an updated narrative, deleted one weld (1B33-0062) and added one weld (1E21-0007). Since the

revisions provided in the March 19, 1991 submittal do not change the technical content of the request for relief, and are generally editorial in nature, the conclusion remains unchanged with relief granted as requested.

B. Request for Relief IR-012 (Rev. 1), Examination Category C-C,
Items C3.10 and C3.20, Class 2 System Integrally Welded Attachments

NOTE: Request for Relief IR-012 (Rev. 0) was originally evaluated and granted by the NRC in a Safety Evaluation Report dated April 25, 1990. Revision 1, submitted March 19, 1991, provided an updated narrative, deleted six welds (for which alternative examinations are now proposed in Request for Relief IR-026), and added four welds.

The following six integrally welded attachments were deleted from IR-012 (Rev. 1):

1-N11-H221-WA	1-N11-H222-WA
1-N11-H223-WA	1-N11-H224-WA
1-N27-H031-WA	1-N27-H032-WA

The following four pump casing support brackets were added to IR-012 in Rev. 1:

1-E51-C001-A-WA	1-E51-C001-B-WA
1-E51-C001-C-WA	1-E51-C001-D-WA

The Licensee reports that approximately 83% of the Code-required surface examination can and will be performed on the above four welds. Surface examination of the remaining 17% is impractical to perform because the pump pedestal blocks access.

Since the revisions provided in the March 19, 1991 submittal do not change the technical content of the request for relief and are generally editorial in nature, the conclusion remains unchanged with relief granted as requested.

- C. Request for Relief IR-016, Examination Category B-D, Reactor Pressure Vessel Head Spray Nozzle-to-Vessel Weld and Nozzle Inside Radius Section

NOTE: This request for relief was withdrawn by the Licensee in the August 10, 1990 submittal. The items for which relief was requested are included in Request for Relief IR-001.

- D. Request for Relief IR-017, Augmented Examination of Class 1 Piping Butt Welds for IGSCC

NOTE: As a result of the NRC request for additional information, this request for relief was withdrawn by the Licensee in the August 10, 1990 submittal.

- E. Request for Relief IR-018 (Rev. 1), Examination Category B-K-1, Class 1 Piping Integrally Welded Support Attachments

Code Requirement: Section XI, Table IWB-2500-1, Examination Category B-K-1, Item B10.10 requires a 100% volumetric or surface examination, as applicable, of Class 1 piping integrally welded attachments as defined by Figures IWB-2500-13, -14, and -15.

Licensee's Code Relief Request: Relief is requested from examining 100% of the Code-required surface of the following support lugs to process pipe attachment welds:

<u>Component I.D.</u>	<u>System</u>	<u>Description</u>	<u>Nature of Obstruction</u>	<u>Est. % Examenable</u>
1E12-H0100-WA	RHR	Welded lugs for pipe clamp	Pipe clamp	90%
1B33-H305A-WA	RR	Welded lugs for pipe clamp	Pipe clamp	75%
1B33-H306A-WA	RR	Welded lugs for pipe clamp	Pipe clamp	75%

(continued)				
<u>Component I.D.</u>	<u>System</u>	<u>Description</u>	<u>Nature of Obstruction</u>	<u>Est. % Examinable</u>
1B33-H305B-WA	RR	Welded lugs for pipe clamp	Pipe clamp	75%
1B33-H306B-WA	RR	Welded lugs for pipe clamp	Pipe clamp	75%
1N27-H0029-WA	FW	Welded lugs for box guide	Box guide	65%
1N27-H0030-WA	FW	Welded lugs for box guide	Box guide	65%

Licensee's Proposed Alternative Examination: None. The surface examination of the welded pipe clamp or box guide lugs has or will be performed to the maximum extent practical.

Licensee's Basis for Requesting Relief: The Licensee states that the Code-required surface examination of the support lug to process pipe attachment welds is limited 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 ISI Program.

Staff Evaluation: The surface examination of the subject support lug to process pipe attachment welds is impractical to perform to the extent required by the Code because of inaccessibility of the weld face at the pipe clamp or box guide to support lug interface. Compliance with the exact Code requirement would necessitate redesign of these components. A significant percentage (90% for one, 75% for four, and 65% for two of the subject welds) of the Code-required surface examination has or will be performed. Thus, the limited surface examination provides reasonable assurance of the continued inservice structural integrity. Therefore, relief is granted as requested.

F. Request for Relief IR-019, Examination Category C-C, Class 2 Piping Integrally Welded Support Attachments

Code Requirement: Section XI, Table IWC-2500-1, Examination Category C-C, Item C3.20 requires a 100% surface examination of Class 2 piping integrally welded attachments as defined by Figure IWC-2500-5.

Licensee's Code Relief Request: Relief is requested from examining 100% of the Code-required surface of the following Class 2 piping integrally welded support attachments:

<u>Component I.D.</u>	<u>System</u>	<u>Description</u>	<u>Nature of Obstruction</u>	<u>Est. % Examenable</u>
1C11-H0032-WA	CRD	Welded lugs for pipe support	Adjacent structure	86%
1C11-H0048-WA	CRD	Welded lugs for pipe support	Adjacent structure	86%
1C11-H0665-WA	CRD	Welded lugs for pipe support	Pipe clamp	87%
1C11-H0675-WA	CRD	Welded lugs for pipe support	Pipe clamp	87%
1E12-H0354-WA	RHR	Pipe anchor	Anchor config.	50%
1E12-H0670-WA	RHR	Welded lugs for pipe support	Pipe clamp	87%
1E22-H0027-WA	HPCS	Pipe anchor	Pipe clamp	81%

Licensee's Proposed Alternative Examination: None. The surface examination of the piping integrally welded attachments has been performed to the maximum extent practical.

Licensee's Basis for Requesting Relief: The Licensee states that the Code-required surface examination of the subject piping integrally welded attachments is limited due to the obstructions listed above. The estimated percentages of the surfaces that are accessible, were examined at the first refueling outage, or will be examined at subsequent

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inspections (as scheduled in Section 13 of the ISI Plan), are listed above.

Staff Evaluation: Access to portions of the Code-required surface areas of the subject welds are obstructed by adjacent structures or pipe clamps. Therefore, the surface examination of the subject piping integrally welded support attachments is impractical to perform to the extent required by the Code. Compliance with the exact Code requirement would necessitate redesign of these components. However, a significant percentage (50% for one, and 81 to 87% for the other six of the subject welds) of the Code-required surface examination has been performed. Thus, the limited surface examination provides reasonable assurance of the continued inservice structural integrity. Therefore, relief is granted as requested.

G. Request for Relief IR-020, Examination Category C-F-2, Class 2 RCIC System Piping Weld

Code Requirement: ASME Code Case N-408, Examination Category C-F-2, Item C5.51, requires both 100% surface and volumetric examinations of Class 2 circumferential piping welds with 3/8 inch or greater nominal wall thickness and greater than 4 inches nominal pipe size as defined by Figure IWC-2500-7.

Licensee's Code Relief Request: Relief is requested from examining 100% of the Code-required volume of valve F013 to 6-inch pipe weld 1E51-0031.

Licensee's Proposed Alternative Examination: None. The volumetric examination of the subject piping weld will be performed to the maximum extent practical. Also, the Code-required surface examination will be performed.

Licensee's Basis for Requesting Relief: The Licensee states that the access for volumetric examination is limited by an adjacent socket weld connection. The estimated percentage of the Code-required volume that can and will be examined is 88%.

Staff Evaluation: Access to a portion of the Code-required volume of the subject weld is obstructed by an adjacent socket weld connection. Therefore, volumetric examination of piping weld IE51-0031 is impractical to perform to the extent required by the Code. Compliance with the exact Code requirement would necessitate redesign of these components. However, a significant percentage (88%) of the volumetric examination can and will be performed. Thus, the limited volumetric examination and Code-required surface examination will provide reasonable assurance of the continued inservice structural integrity. Therefore, relief is granted as requested.

H. Request for Relief IR-021 (Rev. 1), Examination Category D-B, Integral Attachments of Component Supports and Restraints

Code Requirement: Section XI, Table IWD-2500-1, Examination Category D-B, Item D2.20, requires a 100% visual (VT-3) examination of Class 3 integral attachments of component supports and restraints as defined by Figure IWD-2500-1.

Licensee's Code Relief Request: Relief is requested from performing the Code-required VT-3 visual examination of the following integral attachments:

<u>Component I.D.</u>	<u>System</u>	<u>Description</u>	<u>Nature of Obstruction</u>	<u>Est. % Examiable</u>
1B21-H0050-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0157-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0167-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0179-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1P42-H0221-WA	ECC	Welded lugs for pipe support	Lugs in pene. filled with sealant	0%

(continued)				
<u>Component I.D.</u>	<u>System</u>	<u>Description</u>	<u>Nature of Obstruction</u>	<u>Est. % Examinable</u>
1P45-H0643-WA	ESW	Welded lugs for pipe support	Lugs in pene. filled with grout	0%
2P42-H0009-WA	ECC	Welded lugs for pipe support	Two of eight lugs in pene. filled with sealant	75%
1B21-H0176-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0128-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0156-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0158-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0173-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0175-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0155-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0168-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0171-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0159-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0160-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0186-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0177-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1B21-H0163-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%

(continued)				
<u>Component I.D.</u>	<u>System</u>	<u>Description</u>	<u>Nature of Obstruction</u>	<u>Est. % Examinable</u>
1B21-H0164-WA	MS	Welded lugs for pipe support	Underwater, geometry	0%
1G41-H0390-WA	FPC	Welded lugs for pipe support	Lugs in pene. filled w/sealant	0%
1P42-H0115-WA	ECC	Welded lugs for pipe support	Two of four lugs in pene. filled w/sealant	50%
1P42-H0222-WA	ECC	Welded lugs for pipe support	Lugs in pene. filled w/sealant	50%
1P45-H0022-WA	ESW	Welded stanchion of pipe support	Stanchion in pene. filled w/sealant	0%
1P45-H0049-WA	ESW	Welded sleeve of pipe support	Sleeve in pene. filled w/sealant	0%
1P45-H0127-WA	ESW	Welded lugs for pipe support	Lugs in pene. filled w/sealant	0%
1P45-H0191-WA	ESW	Welded lugs for pipe support	Lugs in pene. filled w/sealant	0%
1P45-H0271-WA	ESW	Welded lugs for pipe support	Lugs in pene. filled w/sealant	0%
1P45-H0417-WA	ESW	Welded lugs for pipe support	Lugs in pene. filled w/sealant	0%
2P42-H0024-WA	ECC	Welded lugs for pipe support	Two of six lugs in pene. filled w/sealant	66%
2P42-H0025-WA	ECC	Welded lugs for pipe support	Two of six lugs in pene. filled w/sealant	66%

Licensee's Proposed Alternative Examination: None. The VT-3 visual examination of the welded lugs for pipe supports 2P42-H0009-WA, 1P42-H0115-WA, 2P42-H0024-WA, and 2P42-H0025-WA will be performed to the maximum extent practical.

Licensee's Basis for Requesting Relief: The Licensee states that the Code-required VT-3 visual examination of the subject welds cannot be

performed due to their geometry and because they are either underwater or inside penetrations.

Staff Evaluation: The subject component supports and restraint attachment welds are inaccessible for examination because they are underwater or they are inside penetrations filled with sealant. Therefore, the Code-required VT-3 visual examination is impractical to perform. These systems would require extensive modifications in order to perform the Code-required examination. Complete examinations meeting the requirements of the ASME Code Section XI are performed on integral attachments with similar configurations that utilized the same weld techniques, procedures, and materials. Since the partially or unexamined welds will see the same operating and environmental conditions as the examined welds, it is reasonable to extend the satisfactory results to the non-inspected portions. Therefore, relief is granted as requested.

1. Request for Relief IR-022 (Rev. 1), Examination Category F-C, Class 3 Component Supports

Code Requirement: Section XI, Table IWF-2500-1, Examination Category F-C, Item F3.10, requires a 100% visual (VT-3) examination of mechanical connections to pressure retaining components and building structure as defined by Figure IWD-2500-1.

Licensee's Code Relief Request: Relief is requested from performing the Code-required VT-3 visual examination of the following component supports:

<u>Component I.D.</u>	<u>System</u>	<u>Description</u>	<u>Nature of Obstruction</u>	<u>Est. % Examenable</u>
1B21-H0050	MS	Pipe guide	Underwater, geometry	0%
1B21-H0157	MS	Pipe guide	Underwater, geometry	0%
1B21-H0167	MS	Pipe guide	Underwater, geometry	0%

(continued)				
<u>Component I.D.</u>	<u>System</u>	<u>Description</u>	<u>Nature of Obstruction</u>	<u>Est. % Examinable</u>
1B21-H0179	MS	Pipe guide	Underwater, geometry	0%
1E12-H0476	RHR	Pipe guide	Guide in pene. filled w/sealant	25%
1P42-H0221	ECC	Pipe guide	Guide in pene. filled w/sealant	0%
1P45-H0643	ESW	Pipe guide	Guide in pene. filled w/grout	0%
2P42-H0009	ECC	Pipe guide	Guide partially in pene. filled w/sealant	75%
1B21-H0176	MS	Pipe guide	Underwater, geometry	0%
1B21-H0128	MS	Pipe guide	Underwater, geometry	0%
1B21-H0156	MS	Pipe guide	Underwater, geometry	0%
1B21-H0158	MS	Pipe guide	Underwater, geometry	0%
1B21-H0173	MS	Pipe guide	Underwater, geometry	0%
1B21-H0175	MS	Pipe guide	Underwater, geometry	0%
1B21-H0155	MS	Pipe guide	Underwater, geometry	0%
1B21-H0168	MS	Pipe guide	Underwater, geometry	0%
1B21-H0120	MS	Pipe guide	Underwater, geometry	0%
1B21-H0159	MS	Pipe guide	Underwater, geometry	0%
1B21-H0160	MS	Pipe guide	Underwater, geometry	0%
1B21-H0186	MS	Pipe guide	Underwater, geometry	0%

(continued)				
<u>Component I.D.</u>	<u>System</u>	<u>Description</u>	<u>Nature of Obstruction</u>	<u>Est. % Examinable</u>
1B21-H0177	MS	Pipe guide	Underwater, geometry	0%
1B21-H0163	MS	Pipe guide	Underwater, geometry	0%
1B21-H0164	MS	Pipe guide	Underwater, geometry	0%
1G41-H0396	FPC	Pipe guide	Guide in pene. filled w/sealant	0%
1P42-H0115	ECC	Pipe guide	Guide partially in pene. filled w/sealant	50%
1P42-H0222	ECC	Pipe guide	Guide in pene. filled w/sealant	0%
1P45-H0022	ESW	Pipe anchor	Anchor in pene. filled w/sealant	0%
1P45-H0049	ESW	Pipe anchor	Anchor in pene. filled w/sealant	0%
1P45-H0127	ESW	Pipe anchor	Anchor in pene. filled w/sealant	0%
1P45-H0162	ESW	Pipe guide	Guide in pene. filled w/sealant	0%
1P45-H0191	ESW	Pipe guide	Guide in pene. filled w/sealant	0%
1P45-H0271	ESW	Pipe guide	Guide in pene. filled w/sealant	0%
1P45-H0397	ESW	Pipe guide	Guide underwater limited access sump	0%
1P45-H0398	ESW	Pipe guide	Guide underwater limited access sump	0%
1P45-H0399	ESW	Pipe guide	Guide underwater limited access sump	0%
1P45-H0400	ESW	Pipe guide	Guide underwater limited access sump	0%
1P45-H0417	ESW	Pipe guide	Guide in pene. filled w/sealant	0%

(continued)

<u>Component I.D.</u>	<u>System</u>	<u>Description</u>	<u>Nature of Obstruction</u>	<u>Est. % Examinable</u>
1P45-H0430	ESW	Pipe guide	Guide in pene. filled w/sealant	0%
2P42-H0024	ECC	Pipe guide	Guide partially in pene. filled w/sealant	66%
2P42-H0025	ECC	Pipe guide	Guide partially in pene. filled w/sealant	66%

Licensee's Proposed Alternative Examination: None. The VT-3 visual examination of pipe guides 1E12-H0476, 2P42-H0009, 1P42-H0115, 2P42-H0024, and 2P42-H0025 will be performed to the maximum extent practical.

Licensee's Basis for Requesting Relief: The Licensee states that the Code-required VT-3 visual examination of the subject Class 3 component supports cannot be performed due to their geometry and because they are either underwater or inside penetrations.

Staff Evaluation: The subject component supports are inaccessible for examination because they are underwater or are inside a penetration filled with sealant. Therefore, the Code required VT-3 visual examination is impractical to perform. These systems would require extensive modifications in order to perform the Code-required examination. Complete examinations meeting the requirements of the ASME Code Section XI are performed on component supports with similar configurations that utilized the same weld techniques, procedures, and materials. Since the partially examined and unexamined supports will see the same operating and environmental conditions as the examined supports, it is reasonable to extend the satisfactory results to the non-inspected portions. Therefore, relief is granted as requested.

J. Request for Relief IR-023, Sampling Method for All Safety Related Hydraulic and Mechanical Snubbers

Note: The functional testing (IST) of snubbers is not included in this evaluation. Functional tests are not within the scope of this document and will be evaluated elsewhere.

K. Request for Relief IR-024, Examination Category B-F, Class 1 Pressure Retaining Dissimilar Metal Welds

Code Requirement: Section XI, Table IWB-2400-1, Examination Category B-F, Item B5.10, requires a 100% surface and volumetric examination of reactor pressure vessel nozzle dissimilar metal welds as defined by Figure IWB-2500-8.

Licensee's Code Relief Request: Relief is requested from examining 100% of the Code-required volume of the following reactor pressure vessel nozzle safe-end to safe-end extension welds:

<u>Component I.D.</u>	<u>System</u>	<u>Nature of Obstruction</u>	<u>Est. % Examinable</u>
1B13-N5A-KC	LPCS	Joint geometry/ metallurgy	80% perpendicular 100% parallel
1B13-N5B-KC	HPCS	Joint geometry/ metallurgy	80% perpendicular 100% parallel
1B13-N6A-KC	RHR	Joint geometry/ metallurgy	80% perpendicular 100% parallel
1B13-N6B-KC	RHR	Joint geometry/ metallurgy	80% perpendicular 100% parallel
1B13-N6C-KC	RHR	Joint geometry/ metallurgy	80% perpendicular 100% parallel

Licensee's Proposed Alternative Examination: None. The volumetric examination of the subject safe-end welds will be performed to the maximum extent practical. Also, the Code-required surface examination will be performed.

Licensee's Basis for Requesting Relief: The Licensee reports that these 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 examined ultrasonically 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%.

Staff Evaluation: As the Licensee has stated, the Code-required volumetric examination is impractical to perform because of the joint geometry and the metallurgy of the bimetallic welds. In order to perform the volumetric examination to the extent required by the Code, these safe-end welds would require redesign. Imposition of the requirement on Cleveland Electric Illuminating Company would cause a burden that would not be compensated significantly by an increase in the level of quality and safety.

Although the volumetric examinations are limited, a drawing provided by the Licensee shows that 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 of 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. Therefore, relief is granted as requested.

L. Request for Relief IR-025, Examination Category B-K-1, Class 1 Integrally Welded Piping Support Attachments

Code Requirement: Section XI, Table IWB-2500-1, Examination Category B-K-1, Item B10.10, requires a 100% volumetric or surface examination, as applicable, of Class 1 piping integrally welded attachments as defined by Figures IWB-2500-13, -14, and -15.

Licensee's Code Relief Request: Relief is requested from performing the Code-required surface examination (volumetric is not applicable) of the following support lug to process pipe attachment welds in the Main Steam system:

1B21-G101A-WA	1B21-G101B-WA
1B21-G101C-WA	1B21-G101D-WA

Licensee's Proposed Alternative Examination: VT-1 visual examinations will be performed to the extent and frequency required by Table IWB-2500-1, in lieu of surface examinations.

Licensee's Basis for Requesting Relief: The above welded attachments 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 examinations 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 visual examination (utilizing mirrors and a fiberscope) of the welds. The Licensee feels that utilization of the VT-1 visual examinations in lieu of surface examinations maintains an adequate level of quality and safety without the hardships which would be incurred in disassembly.

Staff Evaluation: It is determined that the Licensee's proposed alternative VT-1 visual examination, utilizing mirrors and a fiberscope, should detect surface cracking or other inservice degradation, if it exists. Therefore, based on the requirement of 320 manhours to perform a surface examination for each of the subject welds, requiring the Licensee to perform the Code-required surface examination would cause hardship or unusual difficulty without a compensating increase in the level of quality and safety. Pursuant to 10 CFR 50.55a(a)(3)(ii), relief is granted as requested.

M. Request for Relief IR-026, Examination Category C-C, Class 2 Integrally Welded Piping Support Attachments

Code Requirement: Section XI, Table IWC-2500-1, Examination Category C-C, Item C3.20, requires a 100% surface examination of Class 2 piping integrally welded attachments as defined by Figure IWC-2500-5.

Licensee's Code Relief Request: Relief is requested from performing the Code-required surface examination of the following support lug to process pipe attachment welds in the Main Steam and Feedwater systems:

1N11-H0221-WA	1N11-H0222-WA
1N11-H0223-WA	1N11-H0224-WA
1N27-H0031-WA	1N27-H0032-WA

Licensee's Proposed Alternative Examination: VT-1 visual examinations will be performed, to the extent and frequency required by Table IWC-2500-1, in lieu of surface examinations.

Licensee's Basis for Requesting Relief: The above welded attachments are pipe lugs within large and complicated guide supports for the 26" Main Steam and 20" Feedwater piping. Disassembly (and the subsequent reassembly) of the guides to provide access for the required surface examinations 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 visual examination (utilizing mirrors and a fiberscope) of the welds. The Licensee feels that utilization of the VT-1 visual examinations in lieu of surface examinations maintains an

adequate level of quality and safety without the hardships which would be incurred in disassembly.

Staff Evaluation: It is determined that the Licensee's proposed alternative VT-1 visual examination, utilizing mirrors and a fiberscope, should detect surface cracking or other inservice degradation, if it exists. Therefore, based on the requirement of 320 manhours to perform a surface examination for each of the subject welds, requiring the Licensee to perform the Code-required surface examination would cause hardship or unusual difficulty without a compensating increase in the level of quality and safety. Pursuant to 10 CFR 50.55a(a)(3)(ii), relief is granted as requested.

N. Request for Relief PT-001, Inservice Test and Holding Time of Class 2 Components Attached to the Reactor Coolant Pressure Boundary

Code Requirement: Section XI, Paragraph IWA-5213(c), Test Condition Holding Time, states "system inservice tests - no holding time required, provided the system has been in operation for at least 4 hours."

Paragraph IWC-5210(a)(2), Test, states "a system pressure test conducted during a system inservice test [IWA-5211(c)] for those systems required to operate during normal plant operation."

Licensee's Code Relief Request: Relief is requested from operating the system for four hours before commencing the VT-2 examinations during the system inservice tests for Class 2 components and instruments nonisolable from the reactor coolant pressure boundary (Class 1). These components shall be examined (VT-2 visual examination) during the Class 1 reactor coolant boundary system leakage pressure test at the frequency intervals specified within Subsection IWC. Thus, this relief request proposes substituting IWA-5213(a) for IWA-5213(c) and IWB-5210(a)(1) for IWC-5210(a)(2).

Licensee's Proposed Alternative Examination: These components shall receive a VT-2 visual examination during the Class 1 reactor coolant

boundary system leakage pressure test at the frequency intervals specified within Subsection IWC.

Licensee's Basis for Requesting Relief: The piping systems less than 1 inch in diameter, and their associated components, connected to the reactor coolant pressure boundary were constructed to the requirements of ASME Code, Section III, Subsection NC, and identified as Safety Class 2 for inservice inspection. The associated components and component parts are identified by valve number and listed in the Licensee's August 10, 1990 submittal. Relief is requested to allow the selected segments of the Class 2 instrument, test, vent, and drain lines listed to be inspected (VT-2 visual examination) during the Class 1 system leakage test because the Class 2 instrument, test, vent, and drain lines are not isolable from the Class 1 system. The primary difference between the Class 1 system leakage test, IWA-5213(a), and the Class 2 system inservice test, IWA-5213(c), is that the Class 2 system inservice test requires the Class 2 system to have been in operation for at least 4 hours prior to performance of the VT-2 examinations. The Class 1 system leakage test requires no holding time after attaining test pressure and temperature conditions. The requirement that the Class 2 system be in operation for at least 4 hours is to ensure that leakage is detected through system insulation. However, relief from the 4 hour operation time requirement should not have a significant adverse effect on detecting leakage for the following reasons: The majority of instrument, test, vent, and drain lines for which relief is requested are themselves uninsulated systems. The Class 2 instrument lines are uninsulated by design to prevent water from flashing to steam that would result in loss of proper indication. Although a small segment of the nonisolable Class 2 test, vent, and drain lines are encompassed within the Class 1 system insulation, the Class 2 isolation valves are, by design, located as close to the Class 1 system as possible (within approximately 1 foot) which serves to minimize the amount of Class 2 insulated line to be inspected per this relief request. In addition, all the nonisolable segments of the Class 2 lines shall be pressurized during the Class 1 reactor coolant pressure boundary system leakage test and a VT-2 visual examination will be performed. The Class 1 system

leakage test will satisfy the Class 2 requirements for test frequency and pressure. Although the nonisolable Class 2 line segments will not have been at normal operating pressure for 4 hours prior to commencing the examinations, the time required to bring the reactor coolant system up to the required test pressure of 1025 psig, a minimum of 6 hours, will ensure the detection of leakage through any of the short sections of insulated Class 2 piping.

In addition, allowing for the performance of the nonisolable Class 2 line segments during the Class 1 system leakage test would minimize overall personnel radiation exposure consistent with the Licensee's ALARA policy by reducing the amount of time required to remain in the drywell to perform a second and unnecessary system walkdown. During the Class 1 system leakage test, the entire Class 1 and nonisolable Class 2 piping segments will be walked down and examined in a comprehensive, systematic manner. A separate Class 2 walkdown and examination would entail hunting for isolated segments of Class 2 piping, increasing the risk of inadvertently missing inspectable items and increasing the amount of personnel exposure. The requested relief would also minimize the amount of time required to maintain the reactor coolant system at the test pressure of 1025 psig by mechanical means, and thereby reduce potential equipment degradation and safety concerns.

Although, as described above, there are differences in test conditions between ASME Section XI IWA-5213(a) and IWA-5213(c), both test methods are designed to ensure leak tightness. Therefore, the substitution of IWA-5213(a) for IWA-5213(c) and the substitution of IWB-5210(a)(1) for IWC-5210(a)(2) for the nonisolable Class 2 line segments identified satisfies the intent of the Code.

Staff Evaluation: In the August 10, 1990 submittal, the Licensee provided an extensive listing of piping, associated components (212 piping segments), and drawings, showing the subject piping for which relief is requested (this piping is also included in Request for Relief PT-002). These drawings show that the subject instrumentation, drain, vent, and test piping are unisolatable from the connected Class 1

reactor coolant piping. In a letter dated October 10, 1990, Request for Relief PT-001 was revised to include additional justifications.

The Code-required Class 2 system inservice test and the Code-required Class 1 system leakage test are both conducted at operating pressure. The Class 2 system inservice test requires no hold time, provided the system has been in operation for at least 4 hours, and the Class 1 system leakage test requires no hold time after attaining the Code-required test pressure and temperature conditions.

The intent of the requirement that the system be in operation for at least 4 hours prior to visual examination during the Class 2 system inservice test is to allow any leakage to penetrate insulation. Since the majority of the instrument, test, vent, and drain lines are not insulated, the visual examination of these uninsulated Class 2 lines performed during the Class 1 system leakage test should detect any leakage. Although the short sections of nonisolable Class 2 lines that are insulated will have not been at normal operating pressure for 4 hours prior to commencing the examinations, leakage through any of the short sections of insulated Class 2 piping will be detected since a minimum of 6 hours is required to bring the reactor coolant system up to the required test pressure of 1025 psig. Thus, the proposed alternative will provide an acceptable level of quality and safety. Therefore, pursuant to 10 CFR 50.55a(a)(3)(i), relief is granted as requested.

O. Request for Relief PT-002, Hydrostatic Test of Class 2 Components Attached to the Reactor Coolant Pressure Boundary

Code Requirement: Section XI, Paragraph IWC-5210(a)(3), Test, requires "a system hydrostatic pressure test [IWA-5211(d)] for each system or portions of systems and for repaired or replaced components, or altered portions of systems."

Paragraph IWC-5222(a), System Hydrostatic Test, requires that the system hydrostatic test pressure be at least 1.10 times the system pressure for systems with Design Temperature of 200 degrees F or less, and at least

1.25 times the system pressure for systems with Design Temperature above 200 degrees F. The system pressure shall be the lowest pressure setting among the number of safety or relief valves provided for overpressure protection within the boundary of the system to be tested. For systems (or portions of systems) not provided with safety or relief valves, the system design pressure shall be substituted for the system pressure.

Licensee's Code Relief Request: Relief is requested from using the Class 2 system hydrostatic pressure test requirements for Class 2 components and instruments that are nonisolable from the Class 1 reactor coolant pressure boundary.

Licensee's Proposed Alternative Examination: These components shall receive the VT-2 visual examination during the Class 1 reactor coolant pressure boundary system hydrostatic pressure test at the frequency intervals specified within Subsection IWB. Thus, this relief request proposes substituting IWB-5210(a)(2) for IWC-5210(a)(3) and IWB-5222/IWB-5230 for IWC-5222(a).

Licensee's Basis for Requesting Relief: These piping systems (less than 1 inch in diameter), and their associated components, were constructed to the requirements of ASME Code Section III, Subsection NC, and identified as Safety Class 2 for inservice inspection. The associated components and component parts are identified by valve number and listed in the Licensee's August 10, 1990 submittal. These piping systems shall be pressurized during the Class 1 system hydrostatic pressure test and a VT-2 visual examination will be performed. The frequency and hold time of the system hydrostatic pressure tests are identical for Class 1 and Class 2.

Within ASME Section XI, the test conditions (i.e., pressure and temperature) between the reactor coolant pressure boundary and other safety systems are different. The Class 1 test pressure has a maximum limit of 1127.5 psig (Reference: Table IWB-5222-1, Test Pressure) with the Class 2 having its minimum test pressure at 1379 psig [Reference: IWC-5222(a) for design temperature greater than 200 degrees F]. Because these piping systems, and their associated components, for which relief

is requested are nonisolable from the reactor coolant pressure boundary, and the maximum test pressure for the Class 1 reactor coolant pressure boundary system hydrostatic test is less than the minimum test pressure required for a Class 2 system hydrostatic test, hydrostatic testing of these Class 2 components is necessarily limited to the Class 1 system hydrostatic test pressure. Although there are differences, both the Class 1 and Class 2 hydrostatic pressure tests ensure structural integrity and leak tightness. Therefore, the substitution of IWB requirements for IWC satisfies the intent of the Code.

Staff Evaluation: In the August 10, 1990 submittal, the Licensee provided an extensive listing of piping, associated components (214 piping segments), and drawings showing the subject piping for which relief is requested (this piping is also included in Request for Relief PT-001). These drawings show that the subject instrumentation, drain, vent, and test piping are unisolatable from the connected Class 1 reactor coolant piping. If this piping were pressurized to the Class 2 test pressure, the adjacent Class 1 reactor coolant piping would be overpressurized. Therefore, the Code-required Class 2 hydrostatic test is impractical to perform. These piping systems would require modifications in order to meet the Code requirement. However, the subject Class 2 instrumentation, test, vent, and drain lines will be subjected to a test pressure greater than operating pressure. Thus, the Licensee's proposed alternative test will provide reasonable assurance of the continued inservice structural integrity. Based on the above, relief is granted as requested.

P. Request for Relief PT-003, VT-2 Visual Examination of Class 2 and 3 Components During System Pressure Tests

Code Requirement: Section XI, Subarticle IWA-5211, Test Description, states that the pressure retaining components within each system boundary shall be subject to system pressure tests during which VT-2 visual examination will be performed in accordance with IWA-5240 to detect leakages. The required system pressure tests and examinations,

as referenced in Table IWA-5210-1, may be conducted in conjunction with one or more of the following system tests or operations: ". . . (b) a system functional test, . . . and (e) a system pneumatic test."

Paragraph IWC-2500(a), Examination and Pressure Test Requirements, states that components shall be examined and pressure tested as specified in Table IWC-2500-1. The method of examination for the components and parts of the pressure retaining boundaries shall comply with those tabulated in Table IWC-2500-1, except where alternate examination methods are used that meet the requirements of IWA-2240.

Paragraph IWC-5210(a), Test, states that the pressure retaining components within each system boundary shall be subjected to the following system pressure tests and visually examined by the method specified in Table IWC-2500-1, Examination Category C-H: "(1) a system pressure test conducted during a system functional test. . . ."

Paragraph IWC-5210(b), Test, states that the system pressure tests and visual examinations shall be conducted in accordance with IWA-5000 and this Article. The contained fluid in the system shall serve as the pressurizing medium, except that in steam systems either water or air may be used. Where air is used, the test procedure shall permit the detection and location of through-wall leakages in components of the system tested.

Paragraph IWD-2500(a), Examination and Pressure Test Requirements, states that components shall be examined and pressure tested as specified in Table IWD-2500-1. The method of examination for the components and parts of the pressure retaining boundaries shall comply with those tabulated in Table IWD-2500-1 except where alternative examination methods are used that meet the requirements of IWA-2240.

Paragraph IWD-5210(a), Test, states that the pressure retaining components within the boundary of each system specified in the examination categories of Table IWD-2500-1 shall be pressure tested and examined in accordance with Table IWD-2500-1 during the following tests: ". . . (2) system functional test, IWA-5211(b). . . ."

Licensee's Code Relief Request: Relief is requested from performing the VT-2 visual examination in conjunction with a pneumatic system pressure test where the test pressurization boundary leakage is measured (makeup or pressure decay) and quantified as within the test equipment accuracy (no detectable leakage). The test pressurization boundaries are identified by penetration numbers. The boundary includes components and appurtenances which become pressurized during testing.

Licensee's Proposed Alternative Examination: Quantifying leakage rates as no detectable leakage utilizing test instruments (calibrated equipment), rather than a VT-2 walkdown, is an alternative technique.

Licensee's Basis for Requesting Relief: Numerous Class 2 and 3 components undergo leak testing using the pressure makeup or pressure decay techniques. These tests require the measurement and quantification of the test pressurization boundary leakage. Performance of a VT-2 examination would require walkdowns and may involve scaffolding erection in radiation areas. Additionally, pressure testing using air could require insulation removal (and re-installation) for detecting leakage by VT-2 visual examination. The use of an alternative technique of no detectable leakage meets the ALARA policy at Perry Nuclear Power Plant. The majority of pressure tests are to satisfy plant Technical Specifications for verifying plant component operability and structural integrity. The test equipment used to satisfy Technical Specifications has an accuracy and range suitable for verifying major safety concerns. The quantification as no detectable leakage is documented as minimum equipment accuracy (i.e., 10 sccm). The performance of a VT-2 visual examination during testing would not serve a useful purpose since the techniques used to detect pneumatic leaks (film application; bubble solution) would not locate a leak less than 10 sccm in actual field testing conditions.

Staff Evaluation: In the August 10, 1990 submittal, the Licensee provided a listing of 36 test pressurization boundaries for which relief is requested and drawings showing the subject piping. This relief request was subsequently revised in a letter dated October 10, 1990.

Table 3 of Section 1 of the Nondestructive Testing Handbook, Volume 1, "Leak Testing," lists the sensitivity limits of various methods of leak location. This table lists the minimum detectable leakage for the bubble method as 0.006 sccm. Therefore, the Licensee's statement that this method would not locate a leak less than 10 sccm is incorrect.

The VT-2 visual examination is conducted to locate evidence of leakage from pressure retaining components, or abnormal leakage from components with or without leakage collection systems as required during the conduct of system pressure or functional tests and shall be conducted in accordance with IWA-5240. Paragraph IWC-5210(b) states that the contained fluid in the system shall serve as the pressurizing medium, except that in steam systems, either water or air may be used. Where air is used, the test procedure shall permit the detection and location of through-wall leakages in components of the system tested.

The Licensee's proposed technique is unacceptable as an alternative as it cannot indicate the location of leakage. Also, the instrumentation used for the proposed alternative technique is much less sensitive than the bubble solution method of leak detection. Moreover, the Licensee has not demonstrated that it is impractical to perform the Code-required visual examination in conjunction with the system pressure tests and has not discussed ALARA levels. Therefore, relief is denied.

III. CONCLUSION

Paragraph 10 CFR 50.55a(g)(4) requires that components (including supports) that are classified as ASME Code Class 1, 2, and 3 meet the requirements, except design and access provisions and preservice requirements, set forth in applicable editions of ASME Section XI to the extent practical within the limitations of design, geometry, and materials of construction of the components. Pursuant to 10 CFR 50.55a(g)(5)(iii), the Licensee determined that conformance with certain Code requirements is impractical for his facility and submitted supporting information. The staff has reviewed the Licensee's submittal and has concluded that there are cases where relief can be granted as requested and one case in which the requested relief cannot be

granted due to insufficient technical justification. Request for Relief IR-023, regarding inservice testing (IST) of snubbers is not included in the scope of this document. In the case of Request for Relief PT-003, the Licensee has not demonstrated that the Code requirement is impractical to perform; therefore, relief cannot be granted for Request for Relief PT-003. As previously stated, Request for Relief IR-004 and Request for Relief IR-012, were originally granted in an April 25, 1990 Safety Evaluation. Since the Revision 1 changes in both of these requests did not change the technical content of the original submittal, the conclusion remains unchanged with relief granted as requested. Pursuant to 10 CFR 50.55a(a)(3)(i), the staff concludes that the proposed alternative provides an acceptable level of quality and safety and relief may be granted for the issues described in Request for Relief PT-001.

For the issues described in Requests for Relief IR-025 and IR-026, imposition of Code requirements would cause hardship or unusual difficulty without a compensating increase in the level of quality and safety, and relief is granted pursuant to 10 CFR 50.55a(a)(3)(ii). Pursuant to 10 CFR 50.55a(g)(6)(i), the staff concludes that the requirements of the Code are impractical and relief may be granted for the issues described in Requests for Relief IR-018 (Rev. 1), IR-019, IR-020, IR-021 (Rev. 1), IR-022 (Rev. 1), IR-024, and PT-002. Such relief is authorized by law and will not endanger life, property, or the common defense and security and is otherwise in the public interest. This relief has been granted giving due consideration to the burden upon the Licensee that could result if the requirements were imposed on the facility. Requests for Relief IR-016 and IR-017 were withdrawn by the Licensee. Table 1 presents a summary of the reliefs requested and the status of the requests as determined by the staff.

TABLE 1

SUMMARY OF RELIEF REQUESTS

<u>Relief Request Number</u>	<u>System or Component</u>	<u>Exam. Cat.</u>	<u>Item No.</u>	<u>Volume or Area to be Examined</u>	<u>Required Method</u>	<u>Licensee Proposed Alternative</u>	<u>Relief Request Status</u>
IR-004 (Rev. 1)	Class 1 Piping	B-J	B9.11 and B9.12	Rev. 1 deleted weld 1B33-0062 and added weld 1E21-007	Volumetric and Surface		Previously granted (NRC SER dated 4/25/90)
IR-012 (Rev. 1)	Class 2 Integral Attachments	C-C	C3.10 and C3.20	Rev. 1 deleted welds 1-N11-H221-WA 1-N11-H222-WA 1-N11-H223-WA 1-N11-H224-WA 1-N27-H031-WA 1-N27-H032-WA Rev. 1 added welds 1-E51-C001-A-WA 1-E51-C001-B-WA 1-E51-C001-C-WA 1-E51-C001-D-WA	Surface		Previously granted (NRC SER dated 4/25/90)
IR-016	Reactor Pressure Vessel	B-D	B3.90 and B3.100	RPV head spray nozzle-to-vessel weld 1B13-N8-KA and nozzle inside radius section 1B13-N8-IR	Volumetric examination	None. Volumetric exam. to maximum extent practical	Withdrawn by Licensee in the 8/10/90 submittal

TABLE 1
SUMMARY OF RELIEF REQUESTS

<u>Relief Request Number</u>	<u>System or Component</u>	<u>Exam. Cat.</u>	<u>Item No.</u>	<u>Volume or Area to be Examined</u>	<u>Required Method</u>	<u>Licensee Proposed Alternative</u>	<u>Relief Request Status</u>
IR-017	Reactor Recirc. System			Class 1 piping butt welds: 1B13-N9A-KC 1B33-0008 1B13-N9B-KC 1B33-0107	Augmented volumetric exam. per NUREG-0313	None. Volumetric exam. to maximum extent practical	Withdrawn by Licensee in the 8/10/90 submittal
IR-018 (Rev. 1)	Class 1 Integral Welded Attachments	B-K-1	B10.10	Support lug to process pipe attachment welds: 1E12-H0100-WA 1B33-H305A-WA 1B33-H306A-WA 1B33-H305B-WA 1B33-H306B-WA 1N27-H0029-WA 1N27-H0030-WA	Surface examination	None. Surface exam. to maximum extent practical	Granted
IR-019	CRD, RHR, and HPCS Systems	C-C	C3.20	Class 2 piping integrally welded support attachments: 1C11-H0032-WA 1C11-H0048-WA 1C11-H0665-WA 1C11-H0675-WA 1E12-H0354-WA 1E12-H0670-WA 1E22-H0027-WA	Surface examination	None. Surface exam. to maximum extent practical	Granted
IR-020	Class 2 RCIC Piping	C-F-2	C5.51	Valve F013 to 6" pipe weld 1E51-0031	Volumetric and surface examinations	100% surface exam. and volumetric exam. to maximum extent practical	Granted

TABLE 1

SUMMARY OF RELIEF REQUESTS

<u>Relief Request Number</u>	<u>System or Component</u>	<u>Exam. Cat.</u>	<u>Item No.</u>	<u>Volume or Area to be Examined</u>	<u>Required Method</u>	<u>Licensee Proposed Alternative</u>	<u>Relief Request Status</u>
IR-021	Class 3 Integral Welded Attachments	D-B	D2.20	Class 3 integral welded attachments:	VT-3 visual examination	None	Granted

Main Steam System

1B21-H0050-WA 1B21-H0157-WA
 1B21-H0167-WA 1B21-H0179-WA
 1B21-H0176-WA 1B21-H0128-WA
 1B21-H0156-WA 1B21-H0158-WA
 1B21-H0173-WA 1B21-H0175-WA
 1B21-H0155-WA 1B21-H0168-WA
 1B21-H0120-WA 1B21-H0159-WA
 1B21-H0160-WA 1B21-H0186-WA
 1B21-H0177-WA 1B21-H0163-WA
 1B21-H0164-WA

Emergency Closed Cooling

1P42-H0221-WA 2P42-H0009-WA
 1P42-H0115-WA 1P42-H0222-WA
 2P42-H0024-WA 2P42-H0025-WA

Emergency Service Water

1P45-H0643-WA 1P45-H0022-WA
 1P45-H0049-WA 1P45-H0127-WA
 1P45-H0191-WA 1P45-H0271-WA
 1P45-H0417-WA

Fuel Pool Cleaning

1G41-H0396-WA

TABLE 1
SUMMARY OF RELIEF REQUESTS

<u>Relief Request Number</u>	<u>System or Component</u>	<u>Exam. Cat.</u>	<u>Item No.</u>	<u>Volume or Area to be Examined</u>	<u>Required Method</u>	<u>Licensee Proposed Alternative</u>	<u>Relief Request Status</u>
IR-022 (Rev. 1)	Class 3 Component Supports	F-C	F3.10	Class 3 pipe guides:	VT-3 visual examination	None	Granted
				<u>Main Steam System</u>			
			1B21-H0050	1B21-H0157	1B21-H0167		
			1B21-H0176	1B21-H0128	1B21-H0156		
			1B21-H0173	1B21-H0175	1B21-H0155		
			1B21-H0120	1B21-H0159	1B21-H0160		
			1B21-H0177	1B21-H0163	1B21-H0164		
			1B21-H0179	1B21-H0158	1B21-H0168		
			1B21-H0186				
				<u>Residual Heat Removal</u>	<u>Fuel Pool Cleaning</u>		
				1E12-H0476	1G41-H0396		
				<u>Emergency Closed Cooling</u>			
			1P42-H0221	2P42-H0009	2P42-H0024		
			1P42-H0115	1P42-H0222	2P42-H0025		
				<u>Emergency Service Water</u>			
			1P45-H0022	1P45-H0049	1P45-H0397		
			1P45-H0127	1P45-H0162	1P45-H0398		
			1P45-H0191	1P45-H0271	1P45-H0643		
			1P45-H0399	1P45-H0400	1P45-H0430		
			1P45-H0417				
IR-023	All Safety Related Hydraulic and Mechanical Snubbers			Functional testing of snubbers (Functional tests (IST) are not within the scope of this document and will be evaluated elsewhere.)			Not applicable (IST)

TABLE 1
SUMMARY OF RELIEF REQUESTS

<u>Relief Request Number</u>	<u>System or Component</u>	<u>Exam. Cat.</u>	<u>Item No.</u>	<u>Volume or Area to be Examined</u>	<u>Required Method</u>	<u>Licensee Proposed Alternative</u>	<u>Relief Request Status</u>
IR-024	Class 1 Dissimilar Metal Welds	B-F	05.10	RPV nozzle safe end-to-safe end extension welds: 1B13-N5A-KC 1B13-N5B-KC 1B13-N6A-KC 1B13-N6B-KC 1B13-N6C-KC	Volumetric and surface examination	None. Volumetric exam. to maximum extent practical	Granted
IR-025	Class 1 Integral Welded Attachments	B-K-1	B10.10	MS system integral welded attachments: 1B21-G101A-WA 1B21-G101B-WA 1B21-G101C-WA 1B21-G101D-WA	Surface examination	VT-1 visual exam. to extent and frequency req. by Table IWB-2500-1	Granted
IR-026	Class 2 Integral Welded Attachments	C-C	C3.20	MS and FW systems integral welded attachments: 1N11-H0221-WA 1N11-H0222-WA 1N11-H0223-WA 1N11-H0224-WA 1N27-H0031-WA 1N27-H0032-WA	Surface examination	VT-1 visual exam. to extent and frequency req. by Table IWC-2500-1	Granted

TABLE 1
SUMMARY OF RELIEF REQUESTS

<u>Relief Request Number</u>	<u>System or Component</u>	<u>Exam. Cat.</u>	<u>Item No.</u>	<u>Volume or Area to be Examined</u>	<u>Required Method</u>	<u>Licensee Proposed Alternative</u>	<u>Relief Request Status</u>
PT-001	Class 2 Piping and Components			Class 2 components and instruments (212 piping segments) that are nonisolatable from the Class 1 reactor coolant press're boundary	System inservice test (VT-2 visual exam. after system in operation for 4 hours)	System leakage test (no hold time)	Granted
PT-002	Class 2 Piping and Components			Class 2 components and instruments (214 piping segments) that are nonisolatable from the Class 1 reactor coolant pressure boundary	Hydrostatic test at 1379 psig	Hydrostatic test per Class 1 requirements (1127.5 psig)	Granted
PT-003	Class 2 and 3 Components			Components (36 test pressurization boundaries) which undergo routine quantitative pressurization tests	VT-2 visual examination during pneumatic system pressure tests	Quantifying leakage rates as no detectable leakage using test instruments (calibrated equipment)	Denied

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