May 31, 2000

Mr. James A. Hutton
Director-Licensing, MC 62A-1
PECO Energy Company
Nuclear Group Headquarters
Correspondence Control Desk
P.O. Box No. 195
Wayne, PA 19087-0195

SUBJECT: RELIEF REQUESTS ASSOCIATED WITH THE SECOND 10-YEAR INTERVAL INSERVICE INSPECTION (ISI) PROGRAM, PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3
(TAC NOS. MA5958 AND MA5959)

Dear Mr. Hutton:

In a letter dated June 24, 1999, PECO Energy Company (the licensee) requested, pursuant to 10 CFR 50.55a, that the U.S. Nuclear Regulatory Commission (NRC) grant releif from and authorize alternatives to certain provisions of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, at the Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. Specifically, the licensee submitted its Second 10-Year Interval ISI Program Plan Requests for Relief Nos. RR-13 (Revision 2), RR-24, RR-34, RR-35, RR-36, RR-37, RR-38, and RR-39.

The NRC staff, with technical assistance from its contractor, the Idaho National Engineering and Environmental Laboratory (INEEL), has reviewed the proposed relief requests, and the staff's evaluation is contained in the enclosed safety evaluation. The staff adopts the evaluations and recommendations for granting relief or authorizing alternatives contained in the enclosed INEEL Technical Letter Report. Specifically, the staff concludes that for Requests for Relief:

a. No. RR-13 (Revision 2): Pursuant to 10 CFR 50.55a(g)(5)(iii), the licensee requested relief from examining 100 percent of the Code-required volume of Category B-D nozzle-to-vessel attachment welds because of access restrictions due to plant design or component configuration. The limited examinations combined with visual inspections (VT-2) performed during system pressure tests provide reasonable assurance of the continued structural integrity of these nozzle-to-vessel welds. Therefore, relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

b. No. RR-24: Pursuant to 10 CFR 50.55a(g)(5), the licensee requested relief from performing the Code-required volumetric examinations for the Unit 2 and 3 standby liquid control (SLC) nozzle inner radius sections, component nos. N10-IRS. Based on the impracticality of meeting the Code coverage requirements for the subject nozzle inner radius sections, and the reasonable assurance provided by the examinations that can be performed, relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

c. No. RR-34: Pursuant to 10 CFR 50.55a(g)(5), the licensee requested relief from examining 100 percent of the Code-required volume of shell-to-flange weld C-6 for both Units 2 and 3. Based on the impracticality of meeting the Code coverage requirements for the subject welds, and the reasonable assurance provided by the examinations that were completed, relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

d. No. RR-35. Pursuant to 10 CFR 50.55a(a)(3)(i), the licensee proposed performing the Unit 2 emergency cooling water (ECW) system hydrostatic test per all other Code requirements, except for the schedule. The required Unit 2 ECW hydrostatic pressure test and visual inspections for the last period of the second 10-year interval were performed 47 days after the end of the interval due to environmental and plant operating constraints. Based on the acceptable level of quality and safety provided by the licensee's proposed alternative, and the results of all three second interval pressure tests were satisfactory (no abnormal leakage), the licensee's proposed alternative is authorized pursuant to 10 CFR 50.55a(a)(3)(i).

e. No. RR-36: Pursuant to 10 CFR 50.55a(g)(5), the licensee proposed performing the required VT-3 examinations on the accessible, non-exempt, Class 3 hangers on the selected loops in each unit in lieu of examining linear pipe support nos. 32GB-H78 and 32GB-S47A in the Unit 2 high pressure service water (HPSW) system, 33HB-S141 and 32HB-S142 in the Unit 2 emergency service water (ESW) system, and 33HB-S146 and 32HB-S147 in the Unit 3 ESW system. Based on the hardship associated with dewatering to gain access to the ESW and HPSW pump bays, and the reasonable assurance of structural integrity provided by the support examinations that were completed, the proposed alternative is authorized pursuant to 10 CFR 50.55a(a)(3)(ii).

f. No. RR-37: Pursuant to 10 CFR 50.55a(g)(5), the licensee requested relief from performing the Code-required examinations for linear pipe support nos. 32GB-H17, 32GB-H19 and 32GB-H21 in the Unit 2 HPSW system, and 32GB-S14, 32GB-S16, and 32GB-S18 in the Unit 3 HPSW system. Based on the impracticality of meeting the Code examination requirements for these HPSW system supports, and the reasonable assurance of structural integrity provided by the support examinations that were completed, relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

g. No. RR-38: Pursuant to 10 CFR 50.55a(g)(5), the licensee requested relief from performing the Code-required examinations for plate and shell type pipe support nos. 33HB-S129 and 33HB-S159 in the Unit 2 ESW system, and 33HB-S149A in the Unit 3 ESW system. Based on the impracticality of meeting the Code support examination requirements for these ESW system supports, and the reasonable assurance of structural integrity provided by the support examinations that were completed, relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

h. RR-39: Pursuant to 10 CFR 50.55a(g)(5), the licensee requested relief from performing the Code-required examinations for integral attachments for component support nos. 32GB-H17, 32GB-H19, 32GB-H21, 33HB-S129, and 33HB-S159 in the Unit 2 HPSW and ESW systems, and component support nos. 32GB-S14, 32GB-S16, 32GB-S18, and 32HB-S149A in the Unit 3 HPSW and ESW systems. Based on the impracticality of meeting the Code examination requirements for these HPSW and ESW system support

integral attachments, and the reasonable assurance of structural integrity provided by the integral attachment examinations that were completed, relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

This completes our effort on these requests, and we are, therefore, closing out TAC Nos. MA5958 and MA5959. If you have any questions regarding this matter, please contact the Peach Bottom Project Manager, Bartholomew C. Buckley, at (301) 415-1483.

Sincerely,

/RA/

James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-277 and 50-278

Enclosure: Safety Evaluation

cc w/encl: See next page

integral attachments, and the reasonable assurance of structural integrity provided by the integral attachment examinations that were completed, relief is granted pursuant to 10 CFR 50.55a(g)(6)(i).

This completes our effort on these requests, and we are, therefore, closing out TAC Nos. MA5958 and MA5959. If you have any questions regarding this matter, please contact the Peach Bottom Project Manager, Bartholomew C. Buckley, at (301) 415-1483.

Sincerely,

/RA/

James W. Clifford, Chief, Section 2
Project Directorate I
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Docket Nos. 50-277 and 50-278

Enclosure: Safety Evaluation

cc w/encl: See next page

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SAFETY EVALUATION OF PROPOSED ALTERNATIVES

TO ASME SECTION XI REQUIREMENTS

FOR SECOND 10-YEAR INTERVAL INSERVICE INSPECTION

NUMBERS RR-13, RR-24, AND RR-34 THROUGH RR-39

PECO ENERGY COMPANY

PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3

DOCKET NOS. 50-277 AND 50-278

1.0 INTRODUCTION

Inservice inspection of the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components is performed in accordance with Section XI of the ASME Boiler and Pressure Vessel (B&PV) 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). As stated in 10 CFR 50.55a(a)(3), alternatives to the requirements of paragraph (g) may be used, when authorized by the U.S. Nuclear Regulatory Commission (NRC), if (i) the proposed alternatives would provide an acceptable level of quality and safety or (ii) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the pre-service examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection (ISI) of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during the first ten-year interval and subsequent intervals comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) twelve months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein. The Code of record for the Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, second 10-year ISI interval is the 1980 Edition through 1981 Winter Addenda of the ASME Boiler and Pressure Vessel Code.

2.0 EVALUATION

The Materials and Chemical Engineering Branch, with technical assistance from Idaho National Engineering and Environmental Laboratory (INEEL), has reviewed the information concerning ISI program Requests for Relief Nos. RR-13 (REV. 2), RR-24, and RR-34 through RR-39

submitted for the second 10-year intervals for PBAPS Units 2 and 3 in PECO Energy Company (the licensee) letter dated June 24,1999.

The staff adopts the evaluations and recommendations for granting relief or authorizing alternatives contained in the Technical Letter Report (TLR), included as Attachment 3, prepared by INEEL. Attachment 2 lists each relief request and the status of approval.
Results of the review are provided in Section 2.0 of the TLR.

For PBAPS Units 2 and 3, relief is granted from or alternatives are authorized to the inspection requirements which have been determined to be impractical to perform, or where an alternative provides an acceptable level of quality and safety, or where compliance would result in a hardship or unusual difficulty without a compensating increase in quality or safety.

3.0 CONCLUSION

The PBAPS Units 2 and 3 requests for relief from the Code requirements have been reviewed by the staff with the assistance of its contractor, INEEL. The TLR provides INEEL's evaluation of these relief requests. The staff has reviewed the TLR and adopts the evaluations and recommendations for granting relief or authorizing alternatives. A summary of the relief request determinations is presented in Attachment 2.

The staff concludes that the relief requests as evaluated by this safety evaluation will provide reasonable assurance of structural integrity of the subject components in the licensee’s requests for relief. The staff has determined that the requirements of the Code are impractical and that granting relief pursuant to 10 CFR 50.55a (g)(6)(i) for RR-13 (Revision 2), RR-24, RR-34, RR-37, RR-38, and RR-39 is authorized by law and will not endanger life or property, or the common defense and security and is otherwise in the public interest given due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility. In addition, for Requests for Relief RR-35 and RR-36, the alternatives are authorized pursuant to 10 CFR 50.55a(a)(3)(i) and (a)(3)(ii), respectively, based on the finding that the proposed alternative provides an acceptable level of quality and safety or compliance would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Therefore, the ISI requests for relief which are granted or authorized for the closure of the second 10-year ISI interval, which concluded on November 4, 1998, and August 14, 1998, for PBAPS Units 2 and 3 respectively.

Principal Contributor: T. McLellan

Date: May 31, 2000

PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3
Second 10-Year ISI Interval (Closeout)
SUMMARY OF RELIEF REQUESTS

Relief Request Number	INEEL TLR Sec.	System or Component	Exam. Category	Item No(s).	Volume or Area to be Examined	Required Method	Licensee Proposed Alternative	Relief Request Disposition
13 (Rev. 2)	2.1	RPV Full Penetration Nozzle-to-Vessel Welds	B-D	B3.90	100% of welds, as detailed in Figs. IWB-2500-7(a) through 7(d)	Volumetric	Perform volumetric exams to the extent practical	Granted (g)(6)(i)
24	2.2	RPV Nozzle Inner Radius Section	B-D	B3.100	100% of welds, as detailed in Figs. IWB-2500-7(a) through 7(d)	Volumetric	Perform volumetric exams to the extent practical	Granted (g)(6)(i)
34	2.3	RPV Shell-to-Flange Welds	B-A	B1.30	100% of welds, as detailed in Figs. IWB-2500-4	Volumetric	Perform volumetric exams to the extent practical	Granted (g)(6)(i)
35	2.4	ECW System Pressure Retaining Components	D-B	D2.10	All pressure retaining components	Visual (VT-2)	Perform required hydrostatic pressure tests 47 days after the end of the second interval	Authorized (a)(3)(i)
36	2.5	ESW and HPSW System Inaccessible Linear Supports Located in Pump Bays	F-B	F2.10 F2.20 F2.30 F2.40	Component supports, welded and mechanical connections.	Visual (VT-3)	Perform the required VT-3 examinations on the accessible, non-exempt system supports	Authorized (a)(3)(ii)
37	2.6	Various HPSW System Inaccessible Linear Supports	F-B	F2.30	Component supports, welded and mechanical connections.	Visual (VT-3)	Perform the required VT-3 examinations on the accessible, non-exempt system supports	Granted (g)(6)(i)
38	2.7	Various ESW System Inaccessible Plate and Shell Supports	F-A	F1.30	Component supports, welded and mechanical connections.	Visual (VT-3)	Perform the required VT-3 examinations on the accessible, non-exempt system supports	Granted (g)(6)(i)
39	2.8	Various Inaccessible ESW and HPSW System Integral Attachments	D-B	D2.20	Component Integral Attachments	Visual (VT-3)	Perform the required VT-3 examinations on the accessible, non-exempt system integral attachments	Granted (g)(6)(i)

TECHNICAL LETTER REPORT
ON THE SECOND 10-YEAR INTERVAL INSERVICE INSPECTION
REQUEST NOS. RR-13 (REV. 2), RR-24, and RR-34 THROUGH RR-39
FOR
PECO ENERGY COMPANY
PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3
DOCKET NUMBERS: 50-277 AND 50-278

1. INTRODUCTION

By letter dated June 24, 1999, the licensee, PECO Energy Company, submitted Request Nos. RR-13 (Rev. 2), RR-24, and RR-34 through RR-39, seeking relief from the requirements of the ASME Code, Section XI, for the Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. These requests pertain to closure of inspection requirements for the second 10-year inservice inspection (ISI) interval, which concluded on November 4, 1998 and August 14,1998, for PBAPS Units 2 and 3, respectively. The Idaho National Engineering and Environmental Laboratory (INEEL) staff's evaluation of the subject requests for relief is in the following section.

2. EVALUATION

The information provided by PECO Energy Company in support of the requests for relief from Code requirements has been evaluated and the bases for disposition are documented below. The Code of record for the PBAPS, Units 2 and 3, second 10-year ISI intervals, which began September 19, 1986 and December 23, 1985, respectively, was the 1980 Edition, with Winter 1981 Addenda, of Section XI of the ASME Boiler and Pressure Vessel Code.

2.1 Request for Relief RR-13, Rev. 2, Examination Category B-D, Item B3.90, Full Penetration Nozzle-to-Vessel Welds in Class 1 Pressure Vessels

Code Requirement: Subsection IWB, Table IWB-2500-1, Examination Category B-D, Item Number B3.90 requires 100% volumetric examination of all full penetration nozzle-to-vessel welds as detailed in Figures IWB-2500-7(a) through -7(d) each inspection interval.

Relief Request: Pursuant to 10 CFR 50.55a(g)(5)(iii), relief is requested from examining 100% of the Code-required volume of the following welds because of access restrictions due to plant design or component configuration.

Licensee's Basis (as stated):
"PBAPS has thirty-one (31)[6] Code Category B-D nozzle to vessel attachment welds on each unit, many of which cannot be completely examined due to vessel nozzle forging configuration. The barrel type nozzle forging configuration precludes complete ultrasonic examination since scanning of the weld is only practical from one side of the weld. Also, in support of ALARA many of the nozzle to vessel welds are examined utilizing a remote automated nozzle

scanner design. In addition to the nozzle forging configuration, physical design restrictions, such as adjacent components, further limit the available scan path."

"Tables RR-13-1 (Unit 2) and RR-13-2 (Unit 3) list the nozzle to vessel welds and detail the extent of examinations completed. The tables show information from the Rev 1 submittal and the supplemental information required for this submittal."

"All examinations are performed to the maximum extent practical. In the case of examinations performed utilizing remote automatic equipment, only a very slight increase in examination coverage (~5%) can be realized with supplemental manual exams; however, this small increase comes with a significant increase in personnel exposure, and, therefore, manual examination was not performed."

"Limited volumetric examination coupled with the visual examination requirements of Code Examination Category B-P during system pressure testing provide reasonable assessment of weld structural integrity."

Proposed Alternative (as stated):
"No alternate provisions are practical for these examinations.

Table RR-13-1, Unit 2 Category B-D Welds[1]

Nozzle Identification/Description	Actual Data Reported in Rev. 1 of This Relief			Added Information per Rev. 2
	Type Scan[2]	% Code Complete[3]	% Inner 1/4T Code Complete[4]	% Composite Coverage[8]
N1A Recirculation Outlet	45T	17.2(A)	41.5(A)	
	60T	28.3(A)	66.9(A)	
	60P	23.6(A)	57.2(A)	
N1B Main Recirc Outlet	-	-	-	28.5
N2A Recirculation Inlet	45T	29.1(A)	51.5(A)	
	60T	37.4(A)	71.1(A)	
	60P	23.0(A)	43.9(A)	
N2B Recirculation Inlet	45T	28.7(A)	50.8(A)	
	60T	36.9(A)	70.1(A)	
	60P	22.7(A)	43.2(A)	
N2C Recirculation Inlet	45T	28.7(A)	50.8(A)	
	60T	36.9(A)	70.1(A)	
	60P	24.0(A)	45.8(A)	
N2D Recirculation Inlet	45T	29.5(A)	52.2(A)	
	60T	37.9(A)	72.1(A)	

Table RR-13-1, Unit 2 Category B-D Welds[1]				
Nozzle Identification/Description	Actual Data Reported in Rev. 1 of This Relief			Added Information per Rev. 2
	Type Scan[2]	% Code Complete[3]	% Inner 1/4T Code Complete[4]	% Composite Coverage[8]
	60P	23.4(A)	44.5(A)	
N2E Recirculation Inlet	45T	32.0(A)	56.7(A)	
	60T	41.1(A)	78.1(A)	
	60P	25.7(A)	48.9(A)	
N2F Recirculation Inlet	45T	28.2(A)	50.0(A)	
	60T	36.3(A)	69.0(A)	
	60P	22.4(A)	42.6(A)	
N2G Main Recirc Inlet	-	-	-	36.6
N2H Recirculation Inlet	45T	33.6(A)	59.6(A)	
	60T	43.2(A)	62.2(A)	
	60P	26.7(A)	50.8(A)	
N2J Main Recirc Inlet	-	-	-	41.7
N2K Main Recirc Inlet	-	-	-	37.4
N3A Main Steam	45T	9.6(A)	33.4(A)	
	60T	23.7(A)	66.9(A)	
	60P	11.3(A)	40.1(A)	
N3B Main Steam	-	-	-	17.4
N3C Main Steam	-	-	-	18.1
N3D Main Steam	45T	8.9(A)	31.2(A)	
	60T	22.2(A)	62.5(A)	
	60P	10.4(A)	36.7(A)	
N4A Feedwater	-	-	-	29.3
N4B Feedwater	-	-	-	30.7
N4C Feedwater	-	-	-	33
N4D Feedwater	-	-	-	36.3
N4E Feedwater	-	-	-	27.2
N4F Feedwater	-	-	-	28.2
N5A Core Spray	45T	23.6(A)	46.7(A)	

Table RR-13-1, Unit 2 Category B-D Welds[1]				
Nozzle Identification/Description	Actual Data Reported in Rev. 1 of This Relief			Added Information per Rev. 2
	Type Scan[2]	% Code Complete[3]	% Inner 1/4T Code Complete[4]	% Composite Coverage[8]
	60T	34.2(A)	65.1(A)	
	60P	19.7(A)	39.4(A)	
N5B Core Spray	45T	23.6(A)	46.7(A)	
	60T	34.2(A)	65.1(A)	
	60P	19.7(A)	39.4(A)	
N6A CH-NA Nozzle	-	-	-	36.2
N6B CH-NC Nozzle	-	-	-	35.6
N8A Jet Pump Inst.	45T	92.4(M)	100.0(M)	
	60T	93.0(M)	100.0(M)	
	45P	80.1(M)	83.7(M)	
	60P	80.1(M)	83.7(M)	
N8B Jet Pump Inst.	-	-	-	76.7
N9 Control Rod Drive	-	-	-	25.8
N10 SLC Nozzle	-	-	-	0[7]

Footnotes for Table RR-13-1:

1. Component inspectability is based on actual examination results.
2. Unless indicated, a 45 degree parallel scan is not practical due to weld configuration.
3. % Code complete is that percent of the ASME Code required examination volume which can effectively be examined using automated (A) or manual (M) ultrasonic examination techniques.
4. % inner 1/4T Code complete is that percent of the critical inner 1/4T wall volume which can effectively be examined using automated (A) or manual (M) ultrasonic examination techniques.
5. Deleted
6. The total number of nozzles in revision 1 of this relief was 30. It increased to 31 because an additional component, N-10, was reclassified into this examination category B-D, Item 3.90. It was previously categorized incorrectly as B-E, the category for partial penetration weld nozzles.
7. Nozzle N-10 was inaccessible due to interferences with the bio-shield and mirror insulation.
8. The percent composite coverage is determined by the examiner's procedure. The procedure applies to the specific equipment utilized for the examination and complies with ASME Section XI and Section V article 4.
9. Thirty (30) of the 31 nozzles (Category B-D, Item No. 3.90) are included in the table. The other nozzle (N-7) was examined with greater than 90% coverage.

Table RR-13-2, Unit 3 Category B-D Welds[1]				
Nozzle Identification/Description	Actual Data Reported in Rev. 1 of This Relief			Added Information per Rev. 2
	Type Scan[2]	% Code Complete[3]	% Inner 1/4T Code Complete[4]	% Composite Coverage[7]
N1A Recirculation Outlet	45T	6.2(A)	27.0(A)	
	60T	18.9(A)	63.5(A)	
	60P	12.4(A)	47.6(A)	
N1B Main Recirc Outlet	-	-	-	28.6
N2A Recirculation Inlet	45T	16.1(A)	40.4(A)	
	60T	30.5(A)	70.2(A)	
	60P	13.9(A)	34.3(A)	
N2B Recirculation Inlet	45T	14.9(A)	37.4(A)	
	60T	28.3(A)	65.1(A)	
	60P	12.8(A)	31.8(A)	
N2C Recirculation Inlet	45T	17.1(A)	42.8(A)	
	60T	32.3(A)	74.3(A)	
	60P	14.7(A)	36.4(A)	
N2D Recirculation Inlet	45T	16.4(A)	41.0(A)	
	60T	31.0(A)	71.2(A)	
	60P	13.9(A)	34.3(A)	
N2F Recirculation Inlet	45T	16.1(A)	40.4(A)	
	60T	31.4(A)	72.3(A)	
	60P	14.3(A)	35.4(A)	
N2G Main Recirc Inlet	-	-	-	26.36
N2H Recirculation Inlet	45T	16.8(A)	42.2(A)	
	60T	31.9(A)	73.3(A)	
	60P	14.3(A)	35.4(A)	
N2J Main Recirc Inlet	-	-	-	26.36
N2K Main Recirc Inlet	-	-	-	26.36
N3A Main Steam	45T	9.8(A)	38.1(A)	
	60T	24.3(A)	76.4(A)	
	60P	11.4(A)	45.0(A)	
N3B Main Steam	-	-	-	30.23
N3C Main Steam	-	-	-	30.23
N3D Main Steam	45T	9.4(A)	36.6(A)	

Table RR-13-2, Unit 3 Category B-D Welds[1]				
Nozzle Identification/Description	Actual Data Reported in Rev. 1 of This Relief			Added Information per Rev. 2
	Type Scan[2]	% Code Complete[3]	% Inner 1/4T Code Complete[4]	% Composite Coverage[7]
	60T	23.4(A)	73.4(A)	
	60P	11.0(A)	43.4(A)	
N4A Feedwater	-	-	-	16.1
N4B Feedwater	-	-	-	23.2
N4C Feedwater	-	-	-	15.3
N4D Feedwater	-	-	-	24.1
N4E Feedwater	-	-	-	11.2
N4F Feedwater	-	-	-	18.1
N5A Core Spray	45T	19.9(A)	44.0(A)	
	60T	31.3(A)	65.4(A)	
	60P	15.1(A)	35.6(A)	
N5B Core Spray	45T	20.2(A)	44.7(A)	
	60T	31.8(A)	66.4(A)	
	60P	15.3(A)	36.2(A)	
N6A CH-NA Nozzle	-	-	-	38.8
N2E Recirculation Inlet	45T	16.6(A)	41.6(A)	
	60T	31.4(A)	72.3(A)	
	60P	14.3(A)	35.4(A)	
N6B CH-NC Nozzle	-	-	-	37.5
N7 CH-NB Nozzle	-	-	-	48.62
N8A Jet Pump Inst.	45T	91.8(M)	100.0(M)	
	60T	92.5(M)	100.0(M)	
	45P	77.3(M)	80.7(M)	
	60P	77.3(M)	80.7(M)	
N8B Jet Pump Inst.	-	-	-	76.7
N9 Control Rod Drive	-	-	-	33.1
N10 SLC Nozzle	-	-	-	43.3

Footnotes for Table RR-13-2:

1. Component inspectability is based on actual examination results.
2. Unless indicated, a 45 degree parallel scan is not practical due to weld configuration.
3. % Code complete is that percent of the ASME Code required examination volume which can effectively be examined using automated (A) or manual (M) ultrasonic examination techniques.
4. % inner 1/4T Code complete is that percent of the critical inner 1/4T wall volume which can effectively be examined using automated (A) or manual (M) ultrasonic examination techniques.
5. Deleted

6. The total number of nozzles in revision 1 of this relief was 30. It increased to 31 because an additional component, N-10, was reclassified into this examination category B-D, Item 3.90. It was previously categorized incorrectly as B-E, the category for partial penetration weld nozzles.
7. The percent composite coverage is determined by the examiner's procedure. The procedure applies to the specific equipment utilized for the examination and complies with ASME Section XI and Section V article 4.
8. All of the 31 nozzles (Category B-D, Item No. 3.90) are included in the table.

Evaluation: The Code requires that the subject Class 1 full penetration nozzle-to-vessel welds be 100% volumetrically examined during the inspection interval. In the NRC Safety Evaluation dated December 23, 1992, relief was granted for the second ten-year inspection interval from the ultrasonic examination coverage requirements of Item 3.90 for Category B-D welds, as specified in Revision 1 of RR-13. Revision 2 of RR-13, additionally requests the same relief for all but one of the remaining Category B-D welds in Unit 2, and all of the remaining Category B-D welds in Unit 3. The full-penetration welds for the following nozzles were added to RR-13, Revision 2:

Nozzle Identification

N1B, Main Recirc Outlet	N2G, Main Recirc Inlet
N2J, Main Recirc Inlet	N2K, Main Recirc Inlet
N3B, Main Steam	N3C, Main Steam
N6A, CH-NA Nozzle	N6B, CH-NC Nozzle
N-7, CH-NB Nozzle (Unit 3 only)	N8B, Jet Pump Instrumentation
N10, SLC Nozzle	

These nozzles are of the barrel-type design. This design limits examination to one side of the weld, thus limiting the extent of ultrasonic coverage. Additionally, access is restricted due to plant design and the location of other components, which further limits examination coverage. Examination of the Unit 2 N10 Nozzle welds (for the Standby Liquid Control System) is not possible because of interference with the bio-shield and the mirror insulation. Based on the information provided in this request for relief, it is impractical to examine the subject welds to the extent required by the Code. In order to obtain the required examination coverage, redesign and modification of the reactor vessel and other structures and components would be necessary. Imposition of this requirement would result in a significant burden on the licensee.

The licensee has examined the subject welds to the extent practical which amounts to composite coverage of up to 76.7 percent. The percentages covered on individual welds along with the information obtained from similar nozzle weld examinations should have revealed any ongoing conditions of degradation if it had occurred. The limited examinations combined with visual inspections (VT-2) performed during system pressure tests provide reasonable assurance of the continued structural integrity of these nozzle-to-vessel welds. Therefore, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

2.2 Request for Relief RR-24, Examination Category B-D, Item B3.100, Reactor Pressure Vessel (RPV) Nozzle Inner Radius Section

Code Requirement: Examination Category B-D, Item B3.100 requires 100% volumetric examination of all RPV nozzle inner radius sections as defined by Figs. IWB-2500-7(a) through (d), as applicable, each inspection interval.

Licensee's Code Relief Request: Pursuant to 10 CFR 50.55a(g)(5)(iii), the licensee has requested relief from performing the Code required volumetric examinations for the Unit 2 and 3 Standby Liquid Control (SLC) Nozzle Inner Radius Sections, Component Numbers N10-IRS.

Licensee's Basis for Requesting Relief (as stated):
"The Standby Liquid Control (SLC) nozzle, as shown in Figure RR-24-1, is designed with an integral socket to which the boron injection piping is fillet welded. This design is different than any of the configurations shown in ASME Section XI, Figure No. IWB-2500-7. The SLC nozzle is located in the bottom head of the vessel in an area that is inaccessible for ultrasonic examinations from the inside of the vessel. Therefore, ultrasonic examinations would need to be performed from the outside diameter of the vessel. As shown in Figure RR-24-1, the ultrasonic examinations would need to travel through the full thickness of the vessel into a complex cladding/socket configuration. These geometric and material reflectors inherent in the design prevent a meaningful examination from being performed on the inner radius of the SLC nozzle."

"In addition, the inner radius socket attaches to piping that injects boron at locations far removed from the nozzle. Therefore, the SLC nozzle inner radius is not subjected to turbulent mixing conditions that are a concern at other nozzles."

Licensee's Proposed Alternative Examination (as stated):
"As an alternative examination, Peach Bottom Atomic Power Station, Units 2 and 3, will perform a VT-2 visual examination of the subject nozzles each refueling outage in conjunction with the Class 1 System Leakage Test."

Evaluation: The Code requires 100% volumetric examination of the subject RPV nozzle inner radius sections. However, as shown in the drawing provided by the licensee, the nozzle configuration and inside geometry prevent obtaining meaningful examination results from the outside surface of the reactor pressure vessel. The nozzle is inaccessible for examination from inside of the vessel due to the location of the nozzle in the reactor pressure vessel lower head area and the configuration of the SLC piping inside the vessel, which is fillet welded into the nozzle socket. These restrictions make the Code required examinations impractical to perform. To complete the examinations as required by the Code, the licensee would have to redesign and modify the reactor pressure vessel and SLC piping. Imposition of the Code requirements would result in a considerable burden on the licensee.

The licensee is not able to examine the 2 inch SLC nozzle inner radius section. However, because of the design of the nozzle, the SLC nozzle inner radius is not subjected to turbulent mixing conditions that are a concern at other nozzles. In addition, there are several other inner radius sections on similarly-sized nozzles in the reactor pressure vessel which are examined per Code requirements. Therefore, any significant

patterns of degradation should be detected by the other examinations and reasonable assurance of the structural integrity of these nozzles is provided.

Based on the impracticality of meeting the Code coverage requirements for the subject nozzle inner radius sections, and the reasonable assurance provided by the examinations that can be performed, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

2.3 Request for Relief RR-34, Examination Category B-A, Item B1.30, RPV Shell-to-Flange Welds

Code Requirement: Examination Category B-A, Item Number B1.30 requires 100% volumetric examination of the RPV shell-to-flange weld as defined by Fig. IWB-2500-4 each inspection interval. Table IWB-2500-1, Note 5, allows volumetric examinations that are required to be performed from the vessel wall to be deferred to the end of the interval, if partial examinations are performed from the flange face.

Licensee's Code Relief Request: Pursuant to 10 CFR 50.55a(g)(5) the licensee has requested relief from examining 100% of the Code-required volume of shell-to-flange Weld C-6 for both Units 2 and 3.

Licensee's Basis for Requesting Relief (as stated):
"A volumetric examination from the flange face was performed for 100% of the circumference during the second interval for PBAPS, Units 2 and 3. No rejectable indications were found. Additionally, an examination of the weld was performed from the inner diameter as part of the reactor pressure vessel examinations. However, less than 100% coverage was achieved due to interferences with permanent plant equipment and temporary equipment required for the refueling mode."

"The actual coverage is described below:

Unit	% Coverage from flange	% Coverage from shell (ID)	Actual composite coverage	Required composite coverage
2	100%	75%	85%	90%
3	100%	69%	82%	90%

"The percent composite coverage is determined by the examiner's procedure. The procedure applies to the specific equipment utilized for the examination and complies with ASME Section XI and Section V."

"Similar exams were performed in the first interval and no rejectable indications were found. As shown above, the composite coverage is 5% less than the required coverage for PBAPS Unit 2, and 8% less than the required coverage for

PBAPS Unit 3. Therefore, the percent coverage is sufficient representation of the code-required volume."

Licensee's Proposed Alternative Examination (as stated):
"Volumetric examinations were performed to the maximum extent practical. The welds are in the scope of VT-2 visual examinations performed each refueling outage in conjunction with the Class 1 System Leakage Test."

Evaluation: The Code requires100% volumetric examination of shell-to-flange reactor pressure vessel welds. However, the licensee has stated that complete volumetric examination is limited by physical obstruction. Therefore, the Code coverage requirements are impractical for these welds. To complete the examinations to the extent required by the Code the licensee would have to redesign and modify the reactor pressure vessel. Imposition of the Code requirements would result in a considerable burden on the licensee.

The licensee has examined the subject welds to the extent practical, attaining 85% and 82% of the cumulative Code-required coverage of Weld C-6 for Units 2 and 3, respectively. No rejectable indications were found by the ultrasonic examinations performed in either of the first or second intervals. Therefore, any significant patterns of degradation would have been detected by the examinations that were completed and reasonable assurance of the structural integrity of these welds has been provided.

Based on the impracticality of meeting the Code coverage requirements for the subject welds, and the reasonable assurance provided by the examinations that were completed, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

2.4 Request for Alternative RR-35 (Unit 2 and Unit 3), Examination Category D-B, Item No. D2.10, System Hydrostatic Pressure Tests for Class 3 Pressure Retaining Components

Code Requirement: Examination Category D-B, Item D2.10, requires VT-2 visual examinations of all Class 3 pressure retaining components in conjunction with system hydrostatic pressure tests performed per IWD-5223 each inspection interval.

Licensee's Proposed Alternative: Pursuant to 10 CFR 50.55a(a)(3)(i), the licensee proposed performing the Unit 2 Emergency Cooling Water (ECW) System hydrostatic test per all other code requirements, except for the schedule. The required Unit 2 ECW hydrostatic pressure test and visual inspections for the last period of the second ten-year interval were performed 47 days after the end of the interval due to environmental and plant operating constraints.

Licensee's Basis for Proposed Alternative (as stated):
"The VT-2 examinations and flow verification required to satisfy the ASME Section XI hydrotest requirements for the Emergency Cooling Water (ECW) system for the second interval for PBAPS Unit 2 and common systems were performed in conjunction with ESW Booster and ECW system pump and valve functional test on December 22, 1998, after the end of the second interval. The

second interval for PBAPS Unit 2 and common systems ended on November 4, 1998. The interval end date had been extended to include the maximum allowable interval extension per Code paragraph IWA-2400(c)."

"The hydrotest was scheduled to be performed within the interval; however, river temperatures precluded the performance of the test as planned on two occasions. In accordance with IWB-2412, the inservice tests were scheduled and performed satisfactorily in the first and second periods of the second interval."

First Period Test	July 15, 1988
Second Period Test	June 6, 1994
Third Period Test (per this relief request)	December 22, 1998

"The second interval began on September 19, 1986. Unit 2 was shutdown for an extended outage in March of 1987. The first inservice test was performed during this shutdown satisfactorily and was within the first period of the interval. Following the restart in May of 1989, the second inservice test was performed in 1994 satisfactorily and was within the second period of the interval. The hydro test was originally scheduled 'at or near the end of the second interval' in accordance with Table IWD-2500-1, Examination Category D-B, Note 2. Although the pressure test (hydro test) was completed 47 days after the end of the interval, an acceptable level of safety was achieved for the following reasons:

1. The three required tests were all performed satisfactorily.
2. The time span between the 6/6/94 test and the 12/22/98 test is 4.5 years. The allowable time between tests is 7 years. This is for the case where the test is performed early in the period, followed by a test performed late in the subsequent period.

"The ESW Booster and ECW Pump and Valve Functional Inservice Test, ST-O-033-310-2, has two pre-requisites that affect the scheduling of this test. The first requires that the circulating water discharge canal cross-tie sluice gate is installed. Historically, the cross-tie gate is installed from mid-March to mid-December. Second, the river water temperature has to be less than or equal to 50 degrees F. Historically, river temperature is less that 50 degrees F from approximately mid-November to the end of March. These two prerequisites force the test to be performed in either of the following two periods: a two-week period in March and a four-week period from Mid-November to mid-December."

"The basis for this 50 degree F prerequisite is based on an evaluation that was performed to determine the maximum river water temperature that would allow the ESW system to remain operable with the MO-0-33-0498 valve closed. (The MO-0-33-0498 valve is the discharge valve to the river. Closing this valve transitions the system into closed loop operation). The safety evaluation sets the upper limit at 53 degrees F. The 50 degree value was included in the test to provide margin (3 degrees F). The 53 degree limit is based on maintaining ESW system operability with the MO-0-33-0498 valve closed, a single ESW pump running, and the ESW

Booster pumps not available. This portion of the ESW system is a common, cooling water system which provides heat removal for safety-related equipment on both units 2 and 3."

"The test (ST-O-033-310-2) closes the MO-0-33-0498 valve. To maintain ESW operability, the evaluation requires that river water temperature must be less than or equal to 53 degrees F when this valve is closed. ESW operability is required by Technical Specification 3.7.2."

"The end of the second interval for Unit 2 and common systems was November 4, 1998. In accordance with historical data, the test had been scheduled for March 30, 1998. The cross-tie gate was installed March 5, 1998, allowing the first pre-requisite for the test to be met. However, two days prior to the scheduled test date an unusually warm weather pattern occurred which raised river water temperature to 56 degrees F. The river temperature remained greater than 50 degrees F throughout the summer. The test was rescheduled for November 2, 1998. However, on November 2, 1998 the river water temperature was 57 degrees F, which exceeded the pre-requisite for 50 degrees F. The test was rescheduled for December 22, 1998. The test was satisfactorily performed on December 22, 1998, when actual river water temperature was 50 degrees F."

Evaluation: The Code requires that ASME Class 3 system hydrostatic pressure tests be performed once each inspection interval. Table IWD-2500-1, Examination Category D-B, Footnote 2, states that the system hydrostatic tests shall be conducted at or near the end of the inspection interval, or during the same inspection period of each interval.

The licensee's proposed alternative is to allow the Code-required second interval hydrostatic test for the Class 3 ECW system to be performed after the end of the inspection interval. The second ten-year interval ended on November 4, 1998. Further, the Code allowed extensions had already been taken for the PBAPS second ten-year inspection interval. Therefore, the ECW system hydrostatic test was performed 47 days after the end of the interval on December 22, 1998. Inservice pressure tests were conducted for the ECW system during the first two periods of the second interval in accordance with Code schedule requirements. The results of all three second interval pressure tests were satisfactory. The time span between the second period inservice pressure test and the third period hydrostatic pressure test was approximately 4.5 years. The licensee stated that testing could not be performed per Code schedule requirements due to environmental and plant operating constraints. Specifically, the circulating water discharge canal cross-tie sluice gate must be installed and the river temperature must be less than or equal to 50 degrees F in order to perform the ECW hydrostatic test. These pre-requisites to ECW hydrostatic testing essentially limit performance of this test to a two week period in March and a four week period from mid-November to mid-December. Unusually warm weather prevented performance of the ECW system hydrostatic test during on the scheduled date and for the remainder of the last year of the interval.

The intent of the Code schedule requirements is that the hydrostatic pressure tests be performed at or near the end of each inspection interval (approximately ten years).The ECW system hydrostatic test was actually performed 47 days after the end of the second

inspection interval. However, the INEEL staff believes that an acceptable level of quality and safety is provided by the licensee's proposed alternative since the period between the end of the interval and the hydrostatic test was not significant (47 days), and because the results of all three second interval pressure tests were satisfactory (no abnormal leakage). Therefore, it is recommended that the licensee's proposed alternative be authorized pursuant to 10 CFR 50.55a(a)(3)(i).

2.5 Request for Relief RR-36, Examination Category F-B, Item Nos. F2.10, F2.20, F2.30, and F2.40, Class 3 Linear Type Supports

Code Requirement: Examination Category F-B, Item Nos. F2.10 and F2.20 require VT-3 examination of mechanical and weld connections to structures and components. Item No. F2.30 requires VT-3 examination of mechanical and weld connections at intermediate joints in multi-connected supports. Item No. F2.40 requires examination of displacement settings of guides and stops, support alignment, and assembly of support items each inspection interval.

Licensee's Proposed Alternative: In accordance with 10 CFR 50.55a(3)(ii), the licensee has proposed performing the required VT-3 examinations on the accessible, non-exempt, Class 3 hangers on the selected loops in each unit in lieu of examining linear pipe support Numbers 32GB-H78 and 32GB-S47A in the Unit 2 High Pressure Service Water (HPSW) system, 33HB–S141 and 32HB-S142 in the Unit 2 Emergency Service Water (ESW) system, and 33HB–S146 and 32HB-S147 in the Unit 3 ESW system.

Licensee's Basis for Alternative (as stated):
"These hangers are not accessible during plant operation and are only made accessible if the pump bays are dewatered. The Unit 3 HPSW pump bay was dewatered in 1987. At that time, all of the HPSW hangers in the bay were inspected satisfactorily. This inspection included Unit 3 HPSW supports on both the A and B pipe loops (four supports), even though only one loop required the examination during the interval. The Unit 2 bay was not dewatered."

The alternative proposed is to perform examinations on greater than 50% of the supports in this F-B code category. (The High Pressure Service Water System consists of two loops. The Emergency Service Water System consists of one loop).

"The requirements of the third interval are the subject of a separate, third interval relief request, which proposes performing the examinations in accordance with Code Case N-491-1. The scope of those examinations for this same code category is 10%."

"The actual examinations performed for the second interval greatly exceed the numbers proposed for examination in the third interval."

Evaluation: The Code requires 100% examination of the selected non-exempt linear type supports and support connections each interval. However, the subject supports located in the HPSW and ESW pump bays are inaccessible during normal operation and also

during normal shutdowns. These supports are accessible for examination only when the pump bays are dewatered, which is infrequently done. Therefore, the Code required examinations are impractical to perform. To complete the examinations as required by the Code, the licensee would have to de-water the pump bays for the HPSW and ESW systems which would render those systems inoperable, impacting both normal and shutdown plant operations. Imposition of the Code requirements would result in hardship for the licensee.

Code Case N-491-1 is approved for use in Regulatory Guide 1.147, Revision 12. The licensee intends to invoke Code Case N-491-1 for the third ten-year inspection interval. The NRC Staff has found it acceptable for licensee's to implement the requirements of this code case. In lieu of the Code support examination requirements, Code Case N-491-1 allows examination of a representative 10% sample for each type and function of nonexempt Class 3 supports for each system. Additional examinations are required if any supports from the sample group do not meet Code acceptance criteria. The licensee stated that the number of examinations in their proposed alternative greatly exceeds the minimum 10% sample required by Code Case N-491-1. Additionally, the licensee examined all of the supports in the Unit 3 HPSW pump bays in 1987 and determined that all supports were in satisfactory condition. Although the supports in the ESW pump bays and the Unit 2 HPSW pump bay were not examined, any significant patterns of degradation should have been detected since the environmental and service conditions are similar for the supports in all the service water bays. Therefore, requiring the licensee to dewater the pump bays for the sole purpose of performing visual examinations on similar supports presents a hardship without a compensating increase in quality and safety.

Based on the hardship associated with dewatering to gain access to the ESW and HPSW pump bays, and the reasonable assurance of structural integrity provided by the support examinations that were completed, it is recommended that the proposed alternative be authorized pursuant to 10 CFR 50.55a(a)(3)(ii).

2.6 Request for Alternative RR-37, Examination Category F-B, Item No. F2.30, Class 3 Linear Type Supports

Code Requirement: Examination Category F-B, Item No. F2.30 requires VT-3 examination of mechanical and weld connections at intermediate joints in multi-connected integral and non-integral supports each inspection interval.

Licensee's Code Relief Request: Pursuant to 10 CFR 50.55a(g)(5)(iii) the licensee has requested relief from performing the Code required examinations for linear pipe support Numbers 32GB-H17, 32GB-H19, and 32GB-H21 in the Unit 2 High Pressure Service Water (HPSW) system, 32GB–S14, 32GB-S16, and 32GB-S18 in the Unit 3 HPSW system.

Licensee's Basis for Requesting Relief (as stated):
"Access to these supports is restricted by permanent plant components. Each set of three supports per unit are guides which are in series, adjacent to themselves on a straight, horizontal run of pipe. A limited exam was able to be performed on

32GB-S18 during the second period. The examination found no rejectable conditions. These supports consist of integral attachments only. The low temperature service of the system and similar design of the examined guides provides assurance that the examined guides have not experienced any service-induced failures."

"The alternative examination described below is essentially a 100% examination of the supports in the loop, which equates to a 50% overall examination (there are two loops in the High Pressure Service Water System in each of Peach Bottom Units 2 and 3). The requirements of the third interval are the subject of a separate, third interval relief request, which proposes performing the examinations in accordance with Code Case N-491-1. The scope of those examinations for this code category is 10%. The actual examinations performed for the second interval greatly exceed the numbers proposed for examination in the third interval."

Licensee's Proposed Alternative Examination (as stated):
"Perform the required VT-3 examinations on all other accessible Class 3 supports on the selected loops in each unit."

Evaluation: The Code requires 100% examination of the welded and mechanical connections of selected non-exempt linear type supports each interval. However, the licensee has stated that access to these supports is restricted by other plant components. Therefore, the Code required examinations are impractical to perform. To complete the examinations as required by the Code, the licensee would have to remove or redesign permanently mounted components and structures. Imposition of the Code requirements would result in a considerable burden on the licensee.

Code Case N-491-1 is approved for use in Regulatory Guide 1.147, Revision 12. The licensee intends to invoke Code Case N-491-1 for the third ten-year inspection interval. The NRC Staff has found it acceptable for licensee's to implement the requirements of this code case. In lieu of the Code examination requirements, Code Case N-491-1 allows examination of a representative 10% sample of each type and function of the nonexempt Class 3 supports for each system. Additional examinations are required if any supports from the sample group do not meet Code acceptance criteria. The licensee stated that the number of examinations in the proposed alternative, greatly exceeds the minimum 10% sample required by Code Case N-491-1.

The licensee was able to perform a limited examination on Unit 3 support 32GB-S18. The examination found no rejectable conditions. Although all required Code examinations were not performed, these supports are subjected to moderate service conditions and a significant number of other HPSW supports were examined. Therefore, any significant patterns of degradation should have been detected and reasonable assurance of the structural integrity of the inaccessible supports should be provided.

Based on the impracticality of meeting the Code examination requirements for these HPSW system supports, and the reasonable assurance of structural integrity provided by the examinations that were completed, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

2.7 Request for Alternative RR-38, Examination Category F-A, Item No. F1.30, Class 3 Plate and Shell Type Supports

Code Requirement: Examination Category F-A, Item No. F1.30 requires VT-3 examination of mechanical and weld connections at intermediate joints in multi-connected integral and non-integral supports each inspection interval.

Licensee's Code Relief Request: Pursuant to 10 CFR 50.55a(g)(5)(iii) the licensee has requested relief from performing the Code required examinations for plate and shell type pipe support Numbers 33HB-S129 and 33HB-S159 in the Unit 2 Emergency Service Water (ESW) system, and 33HB–S149A in the Unit 3 ESW system.

Licensee's Basis for Requesting Relief (as stated):
"The second interval requirement for examination of Emergency Service Water System non-exempt supports is to examine essentially 100% of the supports. Over 300 supports in Examination Category F-A were examined. The three supports described above were not examined due to restrictions with permanent plant components."

"The examination requirements of the third interval are the subject of a separate, third interval relief request, which proposes performing the examinations in accordance with Code Case N-491-1. The scope of those examinations for this same code category is 10%. The actual examinations performed for the second interval greatly exceed the numbers proposed for examination in the third interval."

Licensee's Proposed Alternative Examination:
Perform the required VT-3 examinations on selected Class 3 supports that are accessible.

Evaluation: The Code requires 100% examination of the welded and mechanical connections of the selected non-exempt plate and shell type supports each interval. However, the licensee has stated that access to these supports is restricted by permanent plant components. Therefore, the Code required examinations are impractical to perform. To complete the examinations as required by the Code, the licensee would have to redesign and modify permanently mounted components and structures. Therefore, imposition of the Code requirements would result in a considerable burden on the licensee.

Code Case N-491-1 is approved for use in Regulatory Guide 1.147, Revision 12. The licensee intends to invoke Code Case N-491-1 for the third ten-year inspection interval. The NRC Staff has found it acceptable for licensee's to implement the requirements of this code case. In lieu of the Code examination requirements, Code Case N-491-1 allows examination of a representative 10% sample of each type and function of the non-exempt Class 3 supports for each system. Additional examinations are required if any supports from the sample group do not meet Code acceptance criteria. The licensee stated that over 300 examinations were performed on Code Category F-A supports, and that the number of examinations per their proposed alternative, to perform VT-3

examinations of all accessible Class 3 supports, greatly exceeds the minimum 10% sample required by Code Case N-491-1.

Although all required Code examination were not performed for these three supports, a significant number of other ESW Category F-A supports were inspected. Therefore, any significant patterns of degradation should have been detected and reasonable assurance of the structural integrity of the inaccessible supports should be provided.

Based on the impracticality of meeting the Code support examination requirements for these ESW system supports, and the reasonable assurance of structural integrity provided by the support examinations that were completed, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

2.8 Request for Alternative RR-39, Examination Category D-B, Item No. D2.20, Class 3 Integral Attachments for Component Supports

Code Requirement: Subsection IWD, Table IWD-2500-1, Examination Category D-B, Item No. D2.20, requires VT-3 examinations of integral attachments for component supports and restraints be performed each inspection interval.

Licensee's Code Relief Request: Pursuant to 10 CFR 50.55a(g)(5)(iii) the licensee has requested relief from performing the Code required examinations for integral attachments for component support Numbers 32GB-H17, 32GB-H19, 32GB-H21, 33HB-S129, and 33HB-S159 in the Unit 2 High Pressure Service Water (HPSW) and ESW systems; and component support numbers 32GB–S14, 32GB-S16, 32GB-S18, and 33HB-S149A in the Unit 3 HPSW and ESW systems.

Licensee's Basis for Requesting Relief (as stated):
"Access to these supports is restricted by permanent plant components. The actual examination scope of integral attachments in Class 3 lines is extensive when compared to the examination scope described in the third interval program. (The third interval program is based on Code Case N-509, pending regulatory approval.)"

"The second interval examinations are, essentially 100% of the integral attachments for non-exempt, selected hangars. This equates to approximately 50% overall examination for the HPSW system (due to the redundancy of two loops), and 100% of the ESW system. The planned, third interval scope is 10%. (The third interval examination is a VT-1 examination, which is more rigorous than the second interval [VT-3] examination.)"

"The actual examination scope for the second interval greatly exceeds the scope proposed for examination in the third interval. The code reduction in examination scope is based on the relatively low safety implications and reliable, historical performance of integral attachments, especially for Class 3 components. The actual examination history at Peach Bottom supports the Code action to reduce the scope of supports requiring examination."

Licensee's Proposed Alternative Examination:
Perform the required VT-3 examinations on other selected, non-exempt, Class 3 integral attachments that are accessible.

Evaluation: The Code requires 100% examination of the selected non-exempt component support integral attachments each interval. However, the licensee has stated that access to these supports is restricted by permanent plant components. Therefore, the Code required examinations are impractical to perform. To complete the examinations as required by the Code, the licensee would have to remove or redesign permanently mounted components and structures. Therefore, imposition of the Code requirements would result in a considerable burden on the licensee.

Code Case N-509 is approved for use in Regulatory Guide 1.147, Revision 12. The licensee intends to invoke Code Case N-509 for the third ten-year inspection interval. The NRC Staff has found it acceptable for licensee's to implement the requirements of this code case. In lieu of the Code examination requirements, Code Case N-509 allows examination of a representative 10% sample for each type and function of nonexempt Class 3 integral attachment welds for each system. Additional examinations are required if any integral attachments from the sample group do not meet Code acceptance criteria. The licensee stated that the number of examinations in their proposed alternative greatly exceeds the minimum 10% sample required by Code Case N-509.

Although all required Code examinations were not performed for these integral attachments, a significant number of other ESW and HPSW Category D-B integral attachments were examined. Therefore, any significant patterns of degradation should have been detected and reasonable assurance of the structural integrity of the inaccessible supports should be provided.

Based on the impracticality of meeting the Code examination requirements for these ESW and HPSW system support integral attachments, and the reasonable assurance of structural integrity provided by the integral attachment examinations that were completed, it is recommended that relief be granted pursuant to 10 CFR 50.55a(g)(6)(i).

3. CONCLUSION

The INEEL staff has reviewed the licensee's submittal and concluded that certain inservice examinations are impractical to perform as required by the Code. For Request for Relief Nos. RR-13, RR-24, RR-34, RR-37, RR-38, and RR-39, it is recommended that relief be granted pursuant to 10CFR50.55a(g)(6)(i). The INEEL staff concludes that for Request for Alternative No. RR-35, the licensee's proposed alternative would provide an acceptable level of quality and safety; therefore, it is recommended that these proposed alternatives be authorized pursuant to 10CFR50.55a(a)(3)(i). For Request for Alternative No. RR-36, the INEEL staff concludes that imposition of the Code requirements would result in hardship without a compensating increase in quality or safety. Therefore, it is recommended that the licensee's proposed alternative be authorized pursuant to 10 CFR 50.55a(a)(3)(ii).

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