



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

SAFETY EVALUATION BY THE OFFICE OF  
NUCLEAR REACTOR REGULATION  
RELATED TO REQUESTS FOR RELIEF FROM  
INSERVICE INSPECTION REQUIREMENTS

PHILADELPHIA ELECTRIC COMPANY  
PEACH BOTTOM UNITS 2 AND 3  
DOCKET NO. 50-277/278

INTRODUCTION

Technical Specification 4.6.G for the Peach Bottom Atomic Power Station Units 2 and 3 states that inservice examination of ASME Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a(g) except where specific written relief has been granted by the Commission. Certain requirements of later editions and addenda of Section XI are impractical to perform on older plants because of the plants' design, component geometry, and materials of construction. Thus, 10 CFR 50.55a(g)(6)(i) authorizes the Commission to grant relief from those requirements upon making the necessary findings.

By letters dated June 28, 1984, December 21, 1984, January 31, 1985, February 1, 1985, and March 6, 1985, Philadelphia Electric Company submitted its inservice inspection program, revisions, or additional information related to requests for relief from certain Code requirements determined to be impractical to perform on the Peach Bottom Atomic Power Station Units 2 and 3 during the inspection interval. The program is based on the requirements of the 1980 Edition through Winter 1981 Addenda of Section XI of the ASME Code, and remains in effect until July 6, 1994 and December 13, 1994 for Units 2 and 3, respectively, unless the program is modified or changed prior to the interval end dates.

EVALUATION

Requests for relief from the requirements of Section XI which have been determined to be impractical to perform have been reviewed by the Staff's contractor, Science Applications International Corporation. The contractor's evaluations of the licensee's requests for relief and his recommendations are presented in the Technical Evaluation Report (TER) attached (ATTACHMENT 1). The staff has reviewed the TER and adopts the evaluations and recommendations. A summary of the determinations made by the staff is presented in the following tables:

CONCLUSION

Based on the review summarized, the staff concludes that the items for which relief is granted are impractical to perform, that relief granted from the examining and testing requirements and alternate methods imposed through this document give reasonable assurance of the piping and component pressure boundary and support structural integrity, and that granting relief from the Code requirements found impractical here is authorized by law and will not endanger life or property, or the common defense and security, and is otherwise in the public interest considering the burden that could result if they were imposed on the facility.

Principal Contributors: G. Johnson and S. Lee

Dated: April 8, 1986

TABLE 1  
CLASS 1 COMPONENTS

IWB-2500-1 ITEM NO.	IWB-2500-1 EXAM. CAT.	SYSTEM OR COMPONENT	AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE EXAMINATION	RELIEF REQUEST STATUS
B1.11 & B1.12	B-A	Reactor Pressure Vessel	Shell Welds B1.11: Circumferential B1.12: Longitudinal	Volumetric	Volumetric to Extent Practical	Granted Provided Visual (VT-2) During System Pressure Tests is Performed
B9.11	B-J	Piping Pressure Boundary	Circumferential Welds, Nom. Pipe Size > 4 in. (Welds Enclosed in Containment Penetrations, See Attachment 1 to TER, Relief Request 2.4.5)	Surface and Volumetric	Visual (VT-2) During System Pressure Tests	Granted Provided Volumetric and Surface of First Pressure Boundary Weld Outside Each Contain- ment Penetration are Performed
B9.11 & B9.12	B-J	Piping Pressure Boundary	Nom. Pipe Size > 4 in. B9.11: Circumferential Welds B9.12: Longitudinal Welds (Obstructed Welds, See Attachment 1 to TER, Relief Request 2.4.6)	Surface and Volumetric	Code Examina- tion to Extent Practical and Visual (VT-2) During System Pressure Tests	Granted

TABLE 1

## CLASS 1 COMPONENTS (continued)

IWB-2500-1 ITEM NO.	IWB-2500-1 EXAM. CAT.	SYSTEM OR COMPONENT	AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE EXAMINATION	RELIEF REQUEST STATUS
B9.11 & B9.12	B-J	Piping Pressure Boundary	Nom. Pipe Size > 4 in. B9.11: Circumferential Welds B9.12: Longitudinal Welds (Welds with Material and/or Design Constraints, See Attachment 1 to TER, Relief Request 2.4.7 and 2.4.8)	Surface and Volumetric	Code Examina- tion to Extent Practical and Visual (VT-2) During System Pressure Tests	Granted Provided Code- Required Surface Examination is Performed
B10.10	B-K-1	Piping Pressure Boundary	Integrally Welded Attach- ments (Inaccessible Welds, See Attachment 1 to TER, Relief Request 2.4.9, 2.4.10, and 2.4.11)	Volumetric or Surface as Applicable	Code Examina- tion to Extent Practical and Visual (VT-2) During System Pressure Tests	Granted Provided Code Examination of Welds which Become Accessible Due to Main- tenance is Performed

TABLE 1

## CLASS 1 COMPONENTS (continued)

IWB-2500-1 ITEM NO.	IWB-2500-1 EXAM. CAT.	SYSTEM OR COMPONENT	AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE EXAMINATION	RELIEF REQUEST STATUS
B12.10	B-L-1	Reactor Recircu- lation Pump	Pump Casing Welds	Volumetric	Surface	Granted Provided Volumetric Upon Pump Disassembly for Mainten- ance is Per- formed
B12.20	B-L-2	Recircu- lation Pump	Pump Casing Internal Surface	Visual (VT-3)	Code Examina- tion Upon Pump Disassembly for Mainten- ance, Ultrasonic Surveillance and Visual (VT-2) During System Pressure Tests	Granted
B12.50	B-M-2	Valve	Valve Body, Exceeding 4 in. Nom. Pipe Size	Visual (VT-3)	Code Examina- tion Upon Valve Disassembly for Mainten- ance, Ultra- sonic Surveil- lance and Visual (VT-2) During System Pressure Tests	Granted

TABLE 2

CLASS 2 COMPONENTS

NO RELIEF REQUESTS

TABLE 3

COMPONENT 3 COMPONENTS

NO RELIEF REQUESTS



TABLE 4  
COMPONENTS SUPPORTS

IWF-2500-1 ITEM NO.	IWF-2500-1 EXAM. CAT.	SYSTEM OR COMPONENT	AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE EXAMINATION	RELIEF REQUEST STATUS
F3.50	F-C	Class 1, 2, 3 Piping Pumps and Valves	Spring Type Supports, Constant Load Type Supports, Shock Absorbers, Hydraulic and Mechanical Type Snubbers	Visual (VT-4)	Technical Specification Requirements	Granted

TABLE 5  
PRESSURE TESTS

SYSTEM OR COMPONENT	IWA-5000 IWB-5000 IWC-5000 & IWD-5000 TEST PRESSURE REQUIREMENT	LICENSEE PROPOSED ALTERNATIVE TEST PRESSURE	RELIEF REQUEST STATUS
Class 1	IWB-5222(a): Hydrostatic Test Pressure shall be Specified in Table IWB-5220-1 Correspond- ing to Selected Test Temperature	Nominal Pressure of 1075 psig at Temperature Between 185°F and 212°F	Granted
Class 3 (High Pressure Service Water, Emergency Service Water, and Emergency Cooling Systems)	IWD-5223(a): System Hydrostatic Test Pressure shall be at Least 1.25 Times System Pressure P <sub>sy</sub> for Systems with Design Temperature Above 200°F	Test Pressure at 1.10 Times System Operating Pressure	Granted