



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

BOSTON EDISON COMPANY

PILGRIM NUCLEAR POWER STATION

DOCKET NO. 50-293

1.0 INTRODUCTION

Technical Specification 4.6.G for the Pilgrim Nuclear Power Station 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 December 3, 1982, August 4, and December 1, 1983, June 28, 1984 and February 12, 1985, the Boston Edison Company (BECo, the licensee) submitted its inservice inspection program, revisions, and additional information related to its requests for relief from certain Code requirements which were considered impractical to meet on the Pilgrim Station during the second 10-year inspection interval. The program is based on the requirements of the 1980 Edition through Winter 1980 Addenda of Section XI of the ASME Code, and remains in effect until December 8, 1992 unless the program is modified or changed prior to the interval end date.

2.0 EVALUATION

Request for relief from the requirements of Section XI which the licensee considers impractical to perform have been reviewed by the staff's contractor, Science Applications, Inc. The contractor's evaluations of the licensee's requests for relief and his recommendations are presented in the enclosed Technical Evaluation Report (TER). The staff has reviewed the TER and agrees with the evaluations and recommendations. A summary of the determinations made by the staff is presented in the following Table 1 (Class 1 components) and Table 2 (Class 2 components). No relief was requested relative to Class 3 components, component supports, or pressure tests. Subject to the provisions therein, we have determined that all of the relief requests should be granted except for those associated with pressure retaining welds in B9.10 through B9.40 and C5.10 through C5.32.

### 3.0 CONCLUSION

Based on our review, we conclude that: (1) granting relief where the ASME Code examination and testing requirements are impractical 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, and (2) the alternate methods imposed through this document give reasonable assurance of the piping and component pressure boundary and support structural integrity.

Principal Contributor: G. Johnson

Dated: August 13, 1985

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	B-A	Reactor Vessel	100% of Circumfer- ential Beltline Region Weld	Volumetric	Requirements of 1974 Edition of Section XI, 5% of Length	Granted
B1.12	B-A	Reactor Vessel	100% of Longitudinal Beltline Region Weld	Volumetric	Requirements of 1974 Edition of Section XI, 10% of Weld	Granted
B1.22	B-A	Reactor Vessel	Bottom Head Circumfer- ential Welds	Volumetric	Examine From One Side Only	Granted
B3.90	B-D	Reactor Vessel	100% of Nozzle-To- Vessel Welds	Volumetric	Examine To Extent Practical	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
B9.10 & B9.21	B-J	Piping Pene- trations: X-12 X-51A,B X-17 X-53 * X-14 X-42 * X-9A,B X-7A,B,C,D X-52	Circumfer- ential Welds in triple-flued Head Penetration	Volumetric & Surface (B9.10)  Surface	Visual of Area during Hydrostatic Testing	Granted provided First pressure- retaining weld outside is examined to code Requirements

\*(Penetrations Covered Under Item No. B9.21)

B9.10 thru B9.40	B-J	Class 1 Piping	Pressure Retaining Welds	Surface and Volumetric or Surface	Volumetric	Not Granted
B12.20	B-L-2	Recir- culation Pump	Internal surfaces	Visual during Ten-Year Interval	Visual when pump is disassem- bled for maintenance	Granted
B12.40	B-M-2	Valves	Valve Body Internal surfaces	Visual	Visual when valves are disassembled for maintenance	Granted

TABLE 2

## CLASS 2 COMPONENTS

IWC-2600-1 ITEM NO.	IWC-2520-1 EXAM. CAT.	SYSTEM OR COMPONENT	AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE EXAMINATION	RELIEF REQUEST STATUS
C5.10 thru C5.32	C-F	Class 2 Piping	Pressure Retaining Welds	Surface and Volumetric (C5.21 & C5.22) Surface (Other Items)	Volumetric	Not Granted
C5.11 & C5.12	C-F	Containment Atmospher- ic Control	Pressure Retaining Welds	Surface	Visual During Pressure Tests	Granted