Boston Edison
A BEC ENERGY COMPANY

March 17, 1999
BECo Ltr. 2.99.030

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Docket No. 50-293
License No. DPR-35

Request for Approval to Use ASME Code Case N-573
As An Alternative to ASME Article IWA-4000

Pursuant to 10 CFR 50.55a(a)(3)(i), Boston Edison Company (BECo) hereby requests NRC approval to use ASME Code Case N-573 for weld procedures as an alternative to ASME Article IWA-4000.

ASME Section XI, Article IWA-4000 provides for welding and brazing procedure qualification requirements. The Code Case N-573 provides for alternatives to the welding and brazing procedure qualification requirements by transfer of procedure qualification records between the Owners with Quality Assurance Programs that satisfy ASME Article IWA-1400.

The NRC approval relates to the use of ASME Code Case N-573, dated March 12, 1997, to transfer weld procedures between NRC licensees. The transfer of weld procedure qualification records is described below:

1. BECo anticipates incorporation of Yankee Atomic Weld procedures into the BECo Weld program complying with the provisions (a) to (h) of Code Case N-573. These weld procedures were used at NRC licensees, Vermont Yankee, Seabrook, Maine Yankee, and Yankee Rowe, in accordance with their Quality Assurance Programs.

2. BECo will complete the documentation and obtain information as stated in paragraphs (c), (d), and (e) of Code Case N-573, if required. Also, BECo will demonstrate technical competence in the application of each procedure qualification record by completing a performance qualification test using the parameters of the resulting weld procedure specification.

3. The use of the Code Case will be documented on NIS-2 Form specifying any weld repair/replacement performed using the Code Case.

The use of the ASME Code Case N-573 as an alternative to Article IWA-4000 would provide an acceptable level of quality and safety because the transfer of weld procedure will be accomplished within the scope of the Quality Assurance Program between the NRC licensees and the weld procedures have been previously used at NRC licensed facilities. Therefore, the

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use of Code Case N-573 would not impact the safe operation of Pilgrim Station and health and safety of the public.

NRC approval of the Code Case N-573 is requested by April 16, 1999, in support of Pilgrim Refueling Outage 12. We would need two weeks to develop N-573 compliance documentation to support the outage. The outage is scheduled to start on May 8, 1999. We have enclosed copies of Code Case N-573 and ASME Article IWA-4000 in support of NRC review and approval.

If you have any questions regarding the information contained in this letter, please contact Walter Lobo at (508) 830-7940.

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Group Manager

WGL/cls
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Enclosure: Code Case N-573 and ASME Article IWA-4000

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Senior Resident Inspector
Pilgrim Nuclear Power Station

Approval Date: March 12, 1997
See Numeric Index for expiration and any reaffirmation dates.

Case N-573
Transfer of Procedure Qualification Records Between Owners
Section XI, Division 1

Inquiry: What alternatives to the welding and brazing procedure qualification requirements of IWA-4000 may be used?

Reply: It is the opinion of the Committee that as an alternative to the welding and brazing procedure qualification requirements of IWA-4000, a procedure qualification record (PQR) qualified by one Owner may be used by another Owner. When this alternative is used, the following requirements shall be met:

(a) The Owner that performed the procedure qualification test shall certify, by signing the PQR, that testing was performed in accordance with Section IX.

(b) The Owner that performed the procedure qualification test shall certify, in writing, that the procedure qualification was conducted in accordance with a Quality Assurance Program that satisfies the requirements of IWA-1400.

(c) The Owner accepting the completed PQR shall accept responsibility for obtaining any additional supporting information needed for WPS development.

(d) The Owner accepting the completed PQR shall document, on each resulting WPS, the parameters applicable to welding. Each WPS shall be supported by all necessary PQR's.

(e) The Owner accepting the completed PQR shall accept responsibility for the PQR. Acceptance shall be documented by the Owner's approval of each WPS that references the PQR.

(f) The Owner accepting the completed PQR shall demonstrate technical competence in application of the received PQR by completing a performance qualification test using the parameters of a resulting WPS.

(g) The Owner may accept and use a PQR only when it is received directly from the Owner that certified the PQR.

(h) Use of this Case shall be shown on the NIS-2 form documenting welding or brazing.

ARTICLE IWA-4000
REPAIR PROCEDURES

IWA-4100 GENERAL

IWA-4110 SCOPE

Repairs shall be made in accordance with this Article and IWB-4000 for Class 1 pressure retaining components, IWC-4000 for Class 2 pressure retaining components, IWD-4000 for Class 3 pressure retaining components, and IWF-4000 for component supports.

IWA-4120 ADDITIONAL RULES AND REQUIREMENTS

Repairs shall be performed in accordance with the Owner's Design Specification and Construction Code of the component or system. Later editions of the Construction Code or Section III, either in its entirety or portions thereof, may be used. If repair welding cannot be performed in accordance with these requirements, the following may be used:

(a) IWB-4000 for Class 1 components
(b) IWC-4000 for Class 2 components
(c) IWD-4000 for Class 3 components

IWA-4130 REPAIR PROGRAM

(a) Repair operations shall be performed in accordance with a program delineating essential requirements of the complete repair cycle including (1), (2), and (3) below:

(1) the nondestructive examination method which revealed the flaw and the description of the flaw;

(2) the flaw removal method, method of measurement of the cavity created by removing the flaw, and dimensional requirements for reference points during and after the repair;

(3) weld procedure and postweld heat treatment, if applicable, and nondestructive examination program to be used after the repair.

(b) Prior to authorizing repairs by welding, the Owner shall conduct an evaluation of the suitability of the welding procedure(s) to be used to make the repair. The evaluation should consider cause(s) of failure to ensure that the selected repair procedure is suitable.

(c) Repair programs shall be subject to review by the enforcement and regulatory authorities having jurisdiction at the plant site.

IWA-4140 INSPECTION

The services of an Authorized Inspection Agency shall be used when making a welded repair. The Owner shall notify the Authorized Inspection Agency prior to starting the repair and keep the Inspector informed of the progress of the repair so that necessary inspections may be performed.

IWA-4200 MATERIAL

Material shall conform to the requirements of either the original Design Specification or Section III.

IWA-4300 WELDING AND WELDER QUALIFICATIONS (INCLUDING WELDING OPERATORS)

(a) All welding shall be performed in accordance with welding procedure specifications which have been qualified by the Owner or repair organization in accordance with the requirements of Section IX and the additional requirements of Sections III and XI.

(b) All welders shall be qualified by the repair organization in accordance with the requirements of Section IX and the additional requirements of Sections III and XI.

(c) Welders need not be employed directly by the repair organization provided the use of such welders is

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(b) All welders shall be qualified by the repair organization in accordance with the requirements of Section IX and the additional requirements of Sections III and XI.

(c) Welders need not be employed directly by the repair organization provided the use of such welders is

controlled by the Quality Assurance Program of the repair organization. This Program shall include the following:

(1) requirements for complete and exclusive administration and technical supervision of all welders by the repair organization;

(2) requirements for contractual control which provides the necessary authority to assign and remove welders at the discretion of the repair organization;

(3) evidence that the Quality Assurance Program is acceptable to the Owner's Authorized Nuclear Inservice Inspector.

IWA-4400 PRESSURE TEST

(a) After repairs by welding on the pressure retaining boundary, a system pressure test shall be performed in accordance with IWA-5000.

(b) The following may be exempted from the system hydrostatic pressure tests:

(1) cladding repairs;

(2) heat exchanger tube plugging;

(3) piping, pump, and valve repairs that do not penetrate through the pressure boundary;

(4) pressure vessel repairs where the repaired cavity does not exceed 10% of the minimum design wall thickness;

(5) component connections, piping, and associated valves that are 1 in. nominal pipe size and smaller.

Repairs made in accordance with a procedure which allows exception from postweld heat treatment shall not be exempted.

IWA-4500 EXAMINATION

(a) The repaired areas shall be examined to establish a new preservice record. The examinations shall include the method that detected the flaw.

(b) If the repair includes the complete removal or isolation of the item bearing the flaw, such as heat exchanger tube plugging, (a) above shall not apply.

IWA-4600 REPLACEMENTS

The rules and requirements of this Article shall apply to the attaching of replacements (as defined in IWA-7110) to the system where such attachment is by welding.

IWA-4700 RECORDS

The records required by IWA-6000 shall be completed for all repairs.