



**Commonwealth Edison**

One First National Plaza, Chicago, Illinois  
Address Reply to: Post Office Box 767  
Chicago, Illinois 60690

September 7, 1984

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Quad Cities Station Units 1 & 2  
Second Ten Year Inservice Inspection Program  
Request for Additional Information  
NRC Docket No. 50-254 & 50-265

Reference: T.J. Rausch letter to H.R. Denton  
dated February 17, 1983.

Dear Mr. Denton:

In accordance with the provisions of 10CFR 50.55 a Commonwealth Edison submitted, per the referenced letter our second 10-year Inservice Inspection and Testing (ISI & IST) Program. We have since received informal questions and are docketing our response in Attachment A to this letter. Attachment B includes two additional relief requests. Finally we are enclosing six (6) copies of our Summer 1975 Addenda ISI program for reference.

After all questions are resolved on the ISI/IST program we will submit an final amended program which will incorporate any changes resulting from your review.

If any questions arise on this matter, please contact this office. One (1) signed original and forty (40) copies of this letter and Attachment A & B are enclosed.

Very truly yours,

B. Rybak  
Nuclear Licensing Administrator

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cc: R. Bevan - NRR  
NRC Resident Inspector -Quad Cities

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ATTACHMENT A

RESPONSE TO  
REQUEST  
FOR  
ADDITIONAL  
INFORMATION

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION  
INSERVICE INSPECTION PROGRAM

References: Request For Additional Information Inservice Inspection Program, dated April 10, 1984.

1. Quad-Cities Station is submitting two additional relief requests. They are relief request CR-11 and CR-12. Please see attached sheets for additional information.
2. Copies of Quad-Cities' revised "1975" program will be supplied by Nuclear Licensing Department.
3. Relief Requests CR-1 and CR-2: Beltline Shell Welds and Bottom Head Welds in Reactor Vessel, Category B-A, Items Bl.11, Bl.12, Bl.21, Bl.22

(Item Bl.11) There are no accessible circumferential welds in the upper shell area, therefore no increased examination is feasible.

(Item Bl.12) One longitudinal beltline region shell weld has the length of 11'1", hence, 11'1" of accessible longitudinal shell weld in the upper shell area will be examined in order to achieve an examination sample equivalent to the category B-A weld for which relief is requested.

(Item Bl.21, Bl.22) Augmented examinations may not be necessary because Section XI of ASME Code, 1980 Edition through Winter 1980 Addenda, only requires examination of accessible welds.

4. Relief Request CR-3 Piping Welds, Category B-J, Item B9.11

As permitted by 10 CFR 50.55a., Quad-Cities Station will continue to use table IWB-2500, Category B-J of Section XI, 1974 edition including Summer 1975 addenda to determine the extent of examination for Code Class 1 pipe welds in lieu of the extent of examination specified in the 1980 Code in requiring the same sample to be reexamined. In other words, different 25% sample will be inspected each inspection interval, therefore, Quad-Cities Station feels that this relief request is needed.

5. Relief Request CR-4 and CR-5: Penetration and Branch Connection Welds, Category B-J, Item B9.11

(Refer to explanation given in response to question 4 above, concerning the necessity of the relief requests.)

The first pressure boundary weld outside the containment on each of these process pipes will be volumetrically examined, where practical, over 100% of its length during each inspection interval (CR-4). Surface examination of the saddle fillet welds will be performed in lieu of the Code required examination (CR-5). The examinations required by IWB-5000 will also be conducted.

6. Relief Request CR-8: RHR Hx Nozzle-to-Shell Welds, Category C-B Item  
C2.10 or C2.20

- A. The RHR Heat exchanger shell is 1 inch thick, therefore, both surface and volumetric examinations are imposed on these nozzle-to-shell welds by the Code.

Relief from volumetric exam is added to CR-8. See attached revised relief request CR-8 for additional information.

- B. Alternative surface examinations imposed in the SER have been incorporated into the station's procedure which lists all components to be examined and method of examination for the current inspection interval.

7. Exemption of Class 2 welds in RHR, ECCS, and Containment Heat Removal Systems.

Class 2 welds in RHR and ECC systems will be examined except for those components exempted from examination by Code allowed exemptions as specified in IWC.1220(a), (b), and (c).

ATTACHMENT B

ADDITIONAL  
RELIEF REQUEST

RELIEF REQUEST NO. CR-8

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

There are two 18" diameter nozzles in the Class-2 portion of each of the two RHR System heat exchangers that are fabricated with reinforcement saddles. These saddles are fillet welded over the actual pressure retaining nozzle to shell weld. The configuration is shown on Figure 5.

Section XI of the ASME Boiler and Pressure Vessel Code, 1980 Edition through the Winter 1980 Addenda requires surface and volumetric examinations of two of these four nozzle-to-shell welds in the inspection interval. This requirement is impractical due to inaccessibility.

II. BASIS FOR RELIEF

The fabrication of these nozzle-to-shell welds precludes any type of volumetric or surface examination. The design does, however, provide additional strength at the joint and results in lower stresses at the internal weld. Integrity of these joints will be monitored by periodic system pressure and hydrostatic tests.

### III. ALTERNATE PROVISIONS

An alternative surface examination of the reinforcing ring welds will be performed and a visual examination for evidence of leakage will be conducted in accordance with the Subsection IWC-5000 requirements.

Station's procedure will be revised to insure the performance of the alternative examinations.

RELIEF REQUEST NO. CR-11

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENT

Section XI of the 1980 Edition of the ASME Code including the Winter 1980 Addenda specifies that a volumetric inspection of all full penetration nozzle inside radii sections (code category B-D, item B3.100) each ten-year interval.

The design of the Standby Liquid Control (SBLC) Nozzle as shown on Figure 6 provides an inner radius geometry which is not conducive to ultrasonic inspection.

Relief is requested from this SBLC inner radius inspection due to the nozzle inside radius geometry.

II. BASIS FOR RELIEF

The design of the SBLC nozzle piece does not lend itself to ultrasonic inspection. The nozzle as shown on figure 6 has an integral socket to which the boron injection piping is fillet welded and consequently provides a geometry which will result in a meaningless ultrasonic examination.

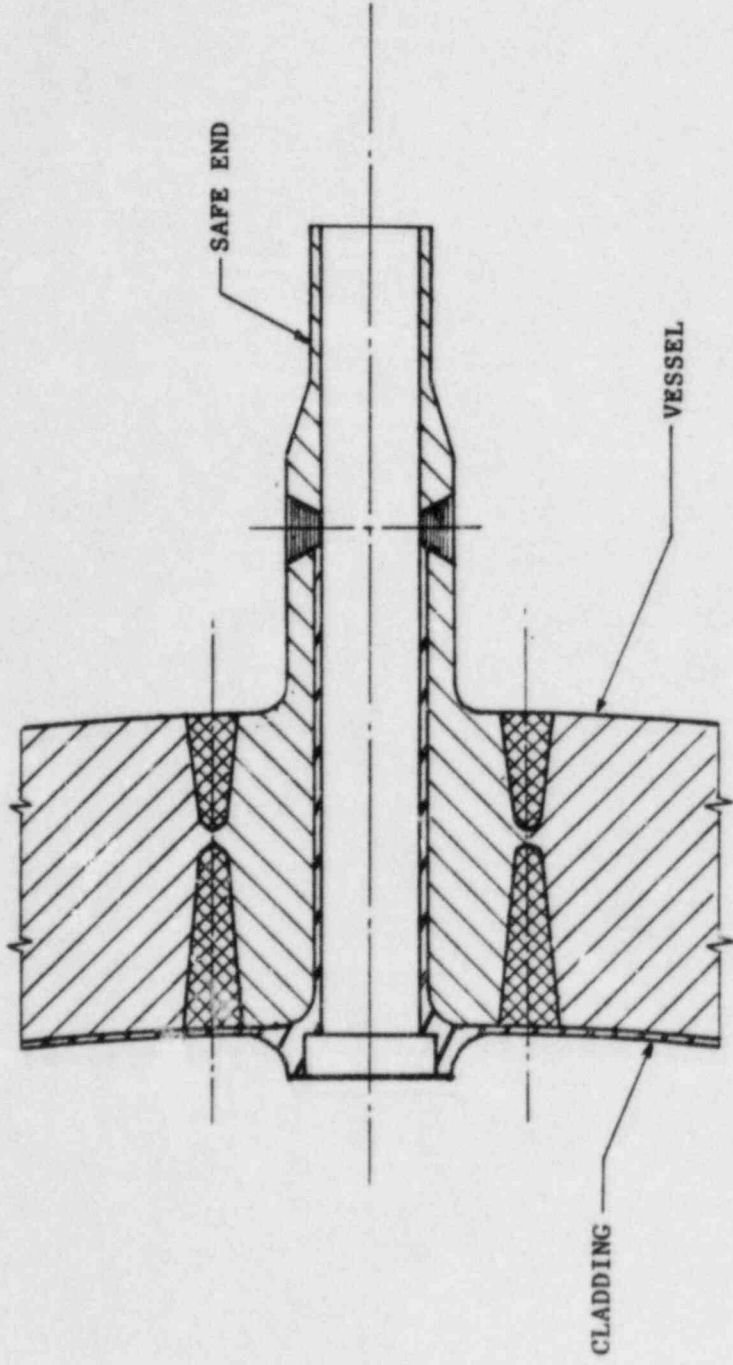
III. ALTERNATE PROVISION

No alternate or augmented examinations are feasible at this time.



Figure 6

Standby Liquid Control Nozzle



RELIEF REQUEST NO. CR-12

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

Each Quad-Cities Unit has an ISI class 2 HPCI Turbine in the HPCI System.

The ASME Boiler and Pressure Vessel Code, Section XI 1980 Edition through the Winter 1980 Addenda requires a hydrostatic test once every inspection interval on all ISI class 2 pressure boundaries.

Relief is requested from this Code requirements in order to avoid damaging the turbine's labyrinth seals.

II. BASIS FOR RELIEF

The labyrinth seals used in the HPCI turbine are designed to prevent steam from leaking out of the turbine casing. The fragile design of the seals is not intended to retain water under pressure. Therefore, performing a hydrostatic test on the turbine casing will permanently damage the turbine seals.

III. ALTERNATE PROVISIONS

A system functional test will be conducted in lieu of the hydrostatic test.