INSERVICE INSPECTION AND TESTING PROGRAM

QUAD CITIES NUCLEAR POWER STATION

UNITS 1 AND 2

Commonwealth Edison

INSERVICE INSPECTION AND TESTING PROGRAM

QUAD CITIES NUCLEAR POWER STATION

UNITS 1 AND 2

COMMONWEALTH EDISON COMPANY

JULY 18, 1979

TABLE OF CONTENTS

PAGE

1.0 INTRODUCTION

1.1 General Information..... 1-1

1.2 System Classifications..... 1-2

2.0 INSERVICE INSPECTION PROGRAM

2.1 Description of ISI Program..... 2-1

2.2 Program Tables..... 2-8

A. Quad Cities Unit-1

B. Quad Cities Unit-2

2.3 Relief Requests.....2-9

3.0 INSERVICE TESTING PROGRAM FOR PUMPS

3.1 Description of IST Program for Pumps..... 3-1

3.2 Program Tables..... 3-2

A. Quad Cities Unit-1

B. Quad Cities Unit-2

3.3 Relief Requests..... 3-3

4.0 INSERVICE TESTING PROGRAM FOR VALVES

4.1 Description of IST Program for Valves..... 4-1

4.2 Program Tables..... 4-10

A. Quad Cities Unit-1

B. Quad Cities Unit-2

4.3 Relief Requests..... 4-11

1.0 INTRODUCTION

1.1 GENERAL INFORMATION

The Inservice Inspection (ISI) and Inservice Testing (IST) Programs for Quad Cities Nuclear Power Station, Units 1 and 2, are developed in compliance with the rules and regulations of 10CFR50.55a and Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition including the Addenda through Summer 1975. Where these rules are determined to be impractical, specific relief is requested in writing.

The Inservice Inspection Programs for Class 1, 2 and 3 Components are applicable for the forty month period beginning October 18, 1979 and November 10, 1979 for Quad Cities Units 1 and 2, respectively. The Inservice Testing Programs for Class 1, 2 and 3 Pumps and Valves are applicable for the twenty month period beginning on the same above mentioned dates. It should be noted that the proposed rule change to 10CFR50.55a dated January 18, 1979, if adopted, would extend the applicable period for the Inservice Testing Programs from 20 months to 40 months. The upcoming 40 month period is the third and final period of the first inspection interval for both Quad Cities Units 1 and 2.

1.2 SYSTEM CLASSIFICATION

The construction permits for Quad Cities Units 1 and 2 were issued on February 15, 1967. At that time the ASME Boiler and Pressure Vessel Code covered only nuclear vessels. Piping, pumps, and valves were built primarily to the rules of USAS B31.1.0, therefore, the station has essentially no ASME Code Class 1, 2 or 3 designed systems. The system classifications used as a basis for the Inservice Inspection and Testing Programs are based on the requirements set forth in 10CFR50 and Regulatory Guide 1.26 and were developed for the sole purpose of assigning the appropriate inservice inspection requirements. Components within the primary coolant pressure boundary, as defined in 10CFR50.2(v), are designated as ISI-Class 1 while other safety-related components are designated as ISI-Class 2 and 3 in accordance with the guidelines of Regulatory Guide 1.26. Pursuant to 10CFR50 paragraph (g)(1), inservice inspection requirements of Section XI of the ASME Code are then assigned to these components, within the constraints of existing plant design.

Color-coded Piping and Instrument Diagrams (P&IDs) documenting the system classifications were developed to aid in the review and implementation of the subject programs. A legend explaining the color-coding scheme is included on the first page of the P&IDs.

2.0 INSERVICE INSPECTION PROGRAM

2.1 PROGRAM DESCRIPTION

2.1.1 The Inservice Inspection Program for ISI Class 1, 2 and 3 components meets the requirements of Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition through the Summer 1975 Addenda. Where these requirements are determined to be impractical, specific requests for relief have been written and included in Section 2.3.

2.1.2 The ISI Program is presented in Section 2.2 in a tabular format. The components and associated requirements are listed according to ascending Code Category and Item Numbers. The following information is included in the tables:

A. Code Category lists the Section XI examination categories as defined in Table IWB-2500 for Class-1 components and Table IWC-2520 for Class 2 components. Since there are no such categories for pressure testing requirements or for Class 3 component examinations, the applicable paragraphs of the Code are referenced. Only those categories applicable to Boiling Water Reactors are included.

B. Item Number and Description lists the Item Number and its description as listed in Table IWB-2600 and IWC-2600. All applicable item numbers are listed for each Code Category.

C. Exam Method lists the examination method or methods that will be performed for each component. Where no relief has been requested, this reflects the Section XI requirements. Where relief has been requested, the exam methods that will be performed in lieu of the required Section XI methods are listed. The abbreviations used are as follows:

VOL - Volumetric

SUR - Surface

V-A - Visual examination per IWA-2210 for components such as bolting and vessel internal parts.

V-B - Visual examination for evidence of leakage conducted in conjunction with pressure testing requirements of IWB, IWC and IWD-5000.

V-C - Visual examination of component supports to determine general condition as related to operability.

D. System lists the applicable Class 1, 2 or 3 system as indicated below. If NONE is listed in this column, there are no components applicable to that Item Number.

SYSTEM NAME	CLASS
Control Rod Drive	1&2
Residual Heat Removal (RHR)	1&2
RHR Service Water	3
Standby Liquid Control (SBLC)	1&2
Reactor Water Cleanup	1
Reactor Core Isolation Cooling (RCIC)	1
Core Spray	1&2
High Pressure Coolant Injection (HPCI)	1&2
Main Steam	1
Feedwater	1&2
Diesel Generator Cooling Water	3

E. Line or Component Numbers lists all line numbers or component numbers applicable to each Item Number. The first digit of the number indicates the appropriate unit number. The letter designation at the end of each line number indicates the piping material (A - stainless steel, B, C, LA, L and LX - carbon steel).

F. P&ID and Coordinates references the applicable color-coded P&ID and Coordinates for the line or component.

G. No. of Items indicates the total number of components (i.e. welds, supports, valves, etc.) that apply to

the particular Item Number. Where this number appears in parentheses, it refers to the number of components exempted by the referenced relief request. For example, if an entry reads - 16 (1) - then sixteen of seventeen total components will be examined per the Code and one component is exempted from a Code required examination by the referenced relief request.

Since this number indicates the total number of components for a particular Item Number, the number to be inspected each interval is some percentage of this total, based on the requirements stated in Section XI for each Category.

H. Relief Request references either a specific relief request contained in Section 2.3 or references one of the Code allowed exemptions listed below. If the latter is referenced, the particular line or component has been exempted from volumetric or surface examination by the applicable Code paragraph.

EX-1 - IWB-1220(b)(3): lines 1-inch nominal pipe size (n.p.s.) and less

EX-2 - IWB-1220(b)(1): liquid carrying lines 2-inch n.p.s. and less (see 2.1.3)

EX-3 - IWB-1200(b)(1): steam carrying lines 3-inch n.p.s. and less (see 2.1.3)

EX-4 - IWC-1220(a): design pressure and temperature less than 200° F and 275 psig

EX-5 - IWC-1220(c): chemistry control (see 2.1.4)

EX-6 - IWC-1220(d): 4-inch n.p.s. and less

EX-7 - IWC-5222(c): open ended piping - hydro exempt

EX-8 - IWD-5223(c): open ended piping - hydro exempt

It should be noted that Section 2.3 - contains some generic relief requests that are not specifically referenced in the tables but apply to the ISI Program in general.

I. Remarks - lists general clarification remarks.

2.1.3 Pursuant to paragraph IWB-1220(b)(1), the maximum size line break that can be made up by the reactor coolant makeup system has been calculated to be 2.0* inches inside diameter for liquid carrying lines and 4.16 inches for steam carrying lines. In applying this exemption to the program, liquid carrying lines less than or equal to 2 inch nominal pipe size and steam carrying lines less than or equal to 3.0 inches n.p.s. were exempted.

2.1.4 Paragraph IWC-1220(c) provides exemption criteria for ECCS systems for which the control of the chemistry of the contained flow is verified by periodic sampling and test.

In carbon steels it is possible to cause stress corrosion cracking with the presence of high percentage hydroxide solutions (15-30%) and with the presence of dissolved oxygen. Failures usually occur when operating temperatures are over 200° C (392° F).

The operating conditions of the components involved are such that the stress levels imposed on the piping are much too low to cause any hydroxide attack. Even though it is believed that the possibility of stress corrosion cracking is extremely low, a conservative approach has been taken and the following sampling program established. The contained fluid of the applicable systems will be analyzed on a monthly basis verifying that the limits listed below are not exceeded.

Chlorides	-	50 ppm
Dissolved Oxygen	-	20 ppm
pH	-	less than 5 or greater than 10

2.1.5 Quad Cities Station will be implementing Class 2 and 3 inspection requirements for the first time with the acceptance of this program. For the remainder of the current ten year interval the percentage of the required examinations completed will be only that which would have been scheduled had Class 2 and 3 requirements been imple-

mented at the beginning of the interval and the required examinations divided evenly among each of the three periods.

SECTION 2.2

TABLES FOR INSERVICE INSPECTION PROGRAM

A. QUAD CITIES UNIT-1

B. QUAD CITIES UNIT-2

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-A PRESSURE RETAINING WELDS IN VESSEL BELTLINE REGION	1	0 - 07/18/74	Page 1 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.1	LONGITUDINAL AND CIRCUMFERENTIAL SHELL WELDS IN CORE REGION	NONE	REACTOR VESSEL	1-201	NONE	(7)	CR-1	

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-B PRESSURE RETAINING WELDS IN VESSELS	1	0 - 07/17/79	Page 2 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.2	LONGITUDINAL AND CIRCUMFERENTIAL WELDS IN SHELL (OTHER THAN THOSE OF CATEGORY B-A and B-C) AND MERIDIONAL AND CIRCUMFERENTIAL SEAM WELDS IN BOTTOM HEAD AND CLOSURE HEAD (OTHER THAN THOSE OF CATEGORY B-C)	VOL	REACTOR VESSEL	1-201	NONE	10(18)	CR-2	

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-C PRESSURE RETAINING WELDS, VESSEL-TO-FLANGE AND HEAD-TO-FLANGE	1	0 - 07/18/79	Page 3 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.3	VESSEL-TO-FLANGE AND HEAD-TO-FLANGE CIRCUMFERENTIAL WELDS	VOL	REACTOR VESSEL	1-201	NONE	2		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-D FULL PENETRATION WELDS OF NOZZLES IN VESSELS	1	0 - 07/18/79	Page 4 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	& ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.4	PRIMARY NOZZLE-TO-VESSEL WELDS AND NOZZLE INSIDE RADIUSED SECTION	VOL	REACTOR VESSEL	1-201	35-1&2	29		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-E PRESSURE RETAINING PARTIAL PENETRATION WELDS IN VESSELS	1	0 - 07/18/79	Page 5 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.5	VESSEL PENETRATIONS, INCLUDING CONTROL ROD DRIVE AND INSTRUMENTATION PENETRATIONS	V-B	REACTOR VESSEL	1-201	35-1&2	235		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-F PRESSURE RETAINING DISSIMILAR METAL WELDS	1	0 - 07/18/79	Page 6 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.6	NOZZLE-TO-SAFE-END WELDS	VOL&SUR	REACTOR VESSEL	1-201	35-1&2	20		
B4.1	SAFE-END-TO-PIPING WELDS AND SAFE-ENDS IN BRANCH PIPING WELDS	VOL&SUR	RX HEAD VENT	1-0215-4"	35-1 B-4	1		
		"	CRD	1-0308-3"	41 D-2	1		
		"	RHRS	1-1025-20"	39 C-6	1		
		VOL&SUR	"	1-1011-4"	39 A-6	1		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
B-G-1	PRESSURE RETAINING BOLTING, 2 INCHES DIAMETER AND LARGER	1	0 - 07/18/79	Page 7 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
	RX VESSEL:							
B1.7	CLOSURE STUDS IN PLACE	VOL	REACTOR VESSEL	1-201	NONE	92		
B1.8	CLOSURE STUDS AND NUTS, WHEN REMOVED	VOL&SUR	"	"	"	184		
B1.9	LIGAMENTS BETWEEN THREADED STUD HOLES	VOL	"	"	"	92		
B1.10	CLOSURE WASHERS, BUSHINGS	V-A	"	"	"	184		
	PIPING PRESSURE BOUNDARY:							
B4.2	PRESSURE-RETAINING BOLTS,							
B4.3	STUDS AND BOLTING	NA	NONE	NA	NA	0		
B4.4								
	PUMPS:							
B5.1	PRESSURE-RETAINING BOLTS AND STUDS, IN PLACE	VOL	RECIRCULATION	1A&B-202	35-2 B-6,3	32		
B5.2	PRESSURE-RETAINING BOLTS AND STUDS, WHEN REMOVED	VOL&SUR	"	"	" "	*		* NUMBER OF BOLTS OR STUDS REMOVED
B5.3	PRESSURE-RETAINING BOLTING	V-A	"	"	" "	32		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-G-1 PRESSURE RETAINING BOLTING, 2 INCHES DIA AND LARGER (Cont)	1	0 - 07/18/79	Page 8 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
	VALVES:							
B6.1	PRESSURE-RETAINING BOLTS	V-A	RECIRCULATION	1-0202-4A&B	35-2 C-7,2	48	CR-3	
	AND STUDS, IN PLACE	V-A	"	1-0202-5A&B	" C-6,3	48	CR-3	
B6.2	PRESSURE-RETAINING BOLTS	V-A	RECIRCULATION	1-202-4A&B	35-2 C-7,2	*	CR-3	* NUMBER OF
	AND STUDS, WHEN REMOVED	V-A	"	1-202-5A&B	" C-6,3	*	CR-3	BOLTS AND STUDS REMOVED
B6.3	PRESSURE-RETAINING BOLTING	V-A	RECIRCULATION	1-202-4A&B	35-2 C-7,2	48		
		V-A	"	1-202-5A&B	" C-6,3	48		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-G-2 PRESSURE RETAINING BOLTING, SMALLER THAN 2 INCHES IN DIAMETER	1	0 - 07/18/79	Page 9 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
	REACTOR VESSEL:							
B1.11	PRESSURE-RETAINING BOLTING	NA	NONE	NA	NA	0		
	PIPING:							
B4.12	PRESSURE-RETAINING BOLTING	V-A	INSTRUMENT	1-0201	NONE	1		RPV HEAD FLANGE
		"	RECIRCULATION	1-0202A-28"A	35-2 B-7	1		DECON FLANGE
		"	"	1-0202B-28"A	35-2 B-2	1		" "
		"	RX HEAD VENT	1-0215-4"A	35-1 E-4	1		FLANGE
		"	RHRS	1-1011-4"A	39 A-6	4		FLANGES
		"	MAIN STEAM	1-3001A-20"B	13-1 E-8	3		SRV FLANGES
		"	"	1-3001B-20"B	13-1 D-8	4		" "
		"	"	1-3001C-20"B	13-1 C-8	3		" "
		V-A	"	1-3001D-20"B	13-1 B-8	3		" "
	PUMPS:							
B5.9	PRESSURE-RETAINING BOLTING	NA	NONE	NA	NA	0		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DA..	PAGE
B-G-2 PRESSURE RETAINING BOLTING, SMALLER THAN 2 IN. IN DIA. (Cont)	1	0 - 07/18/79	Page 10 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
	VALVES							
B6.9	PRESSURE-RETAINING BOLTING	V-A	RECIRCULATION	VARIOUS	35-2	6		NO. OF ITEMS INDICATES NUMBER OF VALVES WITH BOLTING < 2".
		"	CRD	"	41	3		
		"	RHRS	"	39	10		
		"	RX WTR CLEANUP	"	47	2		
		"	CORE SPRAY	"	36	6		
		"	HPC[illegible]	"	46	2		
		"	MAIN STEAM	"	13-1&2	21		
		V-A	FEEDWATER	"	15	6		

585023

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ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-H VESSEL SUPPORTS	1	0 - 07/18/79	Page 11 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.12	INTEGRALLY-WELDED VESSEL SUPPORTS	VOL	REACTOR VESSEL	1-201	NONE	1		SUPPORT SKIRT

585024

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ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-I-1 INTERIOR CLAD SURFACES OF REACTOR VESSELS	1	0 - 07/18/79	Page 12 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.13	CLOSURE HEAD CLADDING	NONE	REACTOR VESSEL	1-201	NONE	(6)	CR-4	
B1.14	VESSEL CLADDING	NONE	REACTOR VESSEL	1-201	NONE	(6)	CR-4	

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ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-J PRESSURE RETAINING WELDS IN PIPING	1	0 - 07/18/79	Page 13 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.5	CIRCUMFERENTIAL AND LONGITUDINAL PIPE WELDS	VOL	RECIRCULATION	1-0201A-28"A	35-2	B-6	10		
		"	"	1-0202A-28"A	"	E-5	8		
		"	"	1-0201B-28"A	"	B-3	10		
		"	"	1-0202B-28"A	"	E-4	10		
		"	"	1-0201-22"A	"	B-4	2		
		"	"	1-0201A-22"A	"	D-4	5		
		"	"	1-0201B-22"A	"	D-5	5		
		"	"	1-0201C-12"A	"	D-4	4		
		"	"	1-0201D-12"A	"	D-4	4		
		"	"	1-0201E-12"A	"	D-4	4		
		"	"	1-0201F-12"A	"	D-4	4		
		"	"	1-0201G-12"A	"	D-4	4		
		"	"	1-0201H-12"A	"	D-5	4		
		"	"	1-0201J-12"A	"	D-5	4		
		"	"	1-0201K-12"A	"	D-5	4		
		"	"	1-0201L-12"A	"	D-5	4		
		"	"	1-0201M-12"A	"	D-5	4		
		"	RX HEAD VENT	1-0215-4"	35-1	F-4	3		
		"	CRD RETURN	1-0308-4"A	41	D-3	16(1)	CP-5	
		"	RHRS	1-1011-4"A/B	39	A-5	30(1)	CR-5	
		"	"	1-1012A-16"A	39	B-4	13		
		"	"	1-1012B-16"B	39	B-5	17		
		"	"	1-1025-20"A	39	C-5	15		
		VOL	RX WTR CLEANUP	1-1202-6"A	47	B-6	24		

585026

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY
B-J PRESSURE RETAINING WELDS IN PIPING (Cont)

CLASS 1 | REVISION - DATE 0 - 07/18/79 |

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.5	CONTINUED	VOL	CORE SPRAY	1-1403-10"A	36 C-3	17		
		"	"	1-1404-10"A	36 C-4	15		
		"	HPCI	1-2305-10"B	46 C-9	17		
		"	MAIN STEAM	1-3001A-20"B	13-1&2 E-8	27		
		"	"	1-3001B-20"B	" D-8	30		
		"	"	1-3001C-20"B	" C-8	28		
		"	"	1-3001D-20"B	" B-8	27		
		"	FEEDWATER	1-3204A-18"C	15 E-3	12		
		"	"	1-3204B-18"C	" F-3	11		
		"	"	1-3204C-12"C	" F-4	6		
		"	"	1-3204D-12"C	" F-4	8		
		"	"	1-3204E-12"C	" E-4	7		
		VOL	"	1-3204F-12"C	" E-4	9		

585027

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
B-J	PRESSURE RETAINING WELDS IN PIPING (Cont)	1	0 - 07/18/79	Page 15 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.5	CONTINUED								
	(WELDS THAT ARE INACCES-	NONE	CRD	PENETRATION X-36	41	D-2	(1)	CR-6	
	SIBLE DUE TO CONTAINMENT	"	RHRS	X-17	39	A-6	(1)	"	
	PENETRATION DESIGN)	"	'	X-13A	"	E-5	(1)	"	
		"	"	X-13B	"	B-6	(1)	"	
		"	"	X-12	"	B-5	(1)	"	
		"	RX WTR CLEANUP	X-14	47	B-6	(1)	"	
		"	CORE SPRAY	X-16A	36	C-3	(1)	"	
		"	"	X-16B	"	C-4	(1)	"	
		"	HPCI	X-11	46	C-9	(1)	"	
		"	MAIN STEAM	X-7A	13-1	E-3	(1)	"	
		"	"	X-7B	"	D-3	(1)	"	
		"	"	X-7C	"	C-3	(1)	"	
		"	"	X-7D	"	B-3	(1)	"	
		"	FEEDWATER	X-9A	15	E-3	(1)	"	
		NONE	"	X-9B	"	F-3	(1)	CR-6	

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY: B-J PRESSURE RETAINING WELDS IN PIPING (Cont) | CLASS: 1 | REVISION - DATE: 0 - 07/18/79 | PAGE: Page 16 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.6	BRANCH PIPE CONNECTION WELDS EXCEEDING SIX INCH DIAMETER	VOL	RECIRCULATION	1-0201A-22"A	35-2	D-5	4		
		"	"	1-0201B-22"A		D-3	4		
		"	MAIN STEAM	1-3001A-20"B	13-1	E-8	3		
		"	"	1-3001B-20"B		D-8	4(1)	CR-7	10" BPC
		"	"	1-3001C-20"B		C-8	3		
		VOL	"	1-3001D-20"B		B-8	3		
		NONE	FEEDWATER	1-3204A-18"C	15	E-3	(1)	CR-7	12" BPC
		NONE	"	1-3204B-18"C		F-3	(1)	CR-7	12" BPC
B4.7	BRANCH PIPE CONNECTION WELDS SIX INCHES DIAMETER AND SMALLER	SUR	RECIRCULATION	1-0201A-28"A	35-2	B-6	2		
		"	"	1-0202A-28"A		E-5	1		
		"	"	1-0201B-28"A		B-3	2		
		SUR	"	1-0202B-28"A		E-4	1		
		NONE	RHRS	1-1025-20"A	39	C-5	(1)	CR-7	6" BPC
B4.8	SOCKET WELDS $\leq$ 2" NPS	NONE	VARIOUS*	NA	NA		*		*SEE B4.11
	SOCKET WELDS > 2" NPS	NONE	NONE	NA	NA		0		

585029

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-K-1 SUPPORT MEMBERS FOR PIPING, VALVES, AND PUMPS	1	0 - 07/18/79	Page 17 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.9	INTEGRALLY WELDED SUPPORTS IN PIPING	VOL	RECIRCULATION	1-0201A-28"A	35-2	B-6	4		
		"	"	1-0202A-28"A	"	E-5	1		
		"	"	1-0201B-28"A	"	B-3	4		
		VOL	"	1-0202B-28"A	"	E-4	1		
		(SUR)	"	1-0201A-22"A	"	D-5	(1)	CR-8	
		(SUR)	"	1-0201B-22"A	"	D-3	(1)	CR-8	
		VOL	"	1-0201-22"A	"	B-4	1		
		"	CRD RETURN	1-0308-3&4"A	41	D-3	2		
		"	RHRS	1-1011-4"A/B	39	A-5	2		
		"	"	1-1012A-16"A	"	B-4	4		
		"	"	1-1012B-16"A	"	B-5	4		
		"	"	1-1025-20"A	"	C-5	5		
		"	RX WTR CLEANUP	1-1202-6"A	47	B-6	5		
		"	CORE SPRAY	1-1403-10"A	36	C-3	2		
		"	"	1-1404-10"A	"	C-4	2		
		"	HPCI	1-2305-10"B	46	C-9	2		
		"	MAIN STEAM	1-3001A-20"B	13-1&2	E-8	4		
		"	"	1-3001B-20"B	"	D-8	5		
		"	"	1-3001C-20"B	"	C-8	5		
		VOL	"	1-3001D-20"B	"	B-8	4		

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-K-1 SUPPORT MEMBERS FOR PIPING, VALVES, AND PUMPS (Cont)	1	0 - 07/18/79	Page 18 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.9	CONTINUED	VOL	FEEDWATER	1-3204A-18"C	15	E-3	2		
		"	"	1-3204B-18"C	"	F-3	3		
		"	"	1-3204C-12"C	"	F-4	1		
		"	"	1-3204D-12"C	"	F-4	2		
		"	"	1-3204E-12"C	"	E-4	1		
		VOL	"	1-3204F-12"C	"	E-4	3		
B5.4	INTEGRALLY WELDED SUPPORTS FOR PUMPS	(SUR)	RECIRCULATION	1A-202	35-2	B-6	(3)	CR-8	
		(SUR)	"	1B-202	"	B-3	(3)	CR-8	
B6.4	INTEGRALLY WELDED SUPPORTS FOR VALVES	(SUR)	RECIRCULATION	1-202-5A	35-2	D-6	(1)	CR-8	
		(SUP)	"	1-202-5B	"	D-3	(1)	CR-8	

585031

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY: B-K-2 SUPPORT COMPONENTS FOR PIPING, VALVES AND PUMPS | CLASS: 1 | REVISION - DATE: 0 - 07/18/79 | PAGE: Page 19 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.10	SUPPORT COMPONENTS FOR PIPING	V-C	RECIRCULATION	1-0201A-28"A	35-2	B-6	4		
		"	"	1-0202A-28"A	"	E-5	1		
		"	"	1-0201B-28"A	"	B-3	4		
		"	"	1-0202B-28"A	"	E-4	1		
		"	"	1-0201-22"A	"	B-4	2		
		"	"	1-0201A-22"A	"	D-4	4		
		"	"	1-0201B-22"A	"	D-5	3		
		"	CRD RETURN	1-0308-3"/4"A	41	D-3	3		
		"	RHRS	1-1011-4"A/B	39	A-5	3		
		"	"	1-1012A-16"A	"	B-4	4		
		"	"	1-1012B-16"A	"	B-5	4		
		"	"	1-1025-20"A	"	C-5	5		
		"	RX WTR CLEANUP	1-1202-6"A	"	B-6	6		
		"	CORE SPRAY	1-1403-10"A	36	C-3	4		
		"	"	1-1404-10"A	"	C-4	4		
		"	HPCI	1-2305-10"B	46	C-3	2		
		"	MAIN STEAM	1-3001A-20"B	13-1	E-8	4		
		"	"	1-3001B-20"B	"	D-8	5		
		"	"	1-3001C-20"B	"	C-8	5		
		V-C	"	1-3001D-20"B	"	B-8	4		

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-K-2 SUPPORT COMPONENTS FOR PIPING, VALVES AND PUMPS (Cont)	1	0 - 07/18/79	Page 20 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B.4.10	CONTINUED	V-C	FEEDWATER	1-3204A-18"C	15 E-3	2		
		"	"	1-3204B-18"C	" F-3	3		
		"	"	1-3204C-12"C	" F-4	1		
		"	"	1-3204D-12"C	" F-4	2		
		"	"	1-3204E-12"C	" E-4	1		
		V-C	"	1-3204F-12"C	" E-4	3		
B5.5	SUPPORT COMPONENTS FOR PUMPS	V-C	RECIRCULATION	1A-202	35-2 B-6	6		
		"	"	1B-202	" B-3	6		
B6.5	SUPPORT COMPONENTS FOR VALVES	"	RECIRCULATION	1-0202-5A	" D-6	1		
		"	"	1-0202-5B	" D-3	1		
		"	"	1-0202-4A	" C-7	1		
		V-C	"	1-0202-4B	" C-2	1		

585033

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
B-L-1 B-L-2	PRESSURE RETAINING WELDS IN PUMP CASINGS PUMP CASINGS	1	0 - 07/18/79	Page 21 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B5.6	PUMP CASING WELDS	NA	NONE	NA	NA	0		
B5.7	PUMP CASINGS	*	RECIRCULATION	1A-202	35-2 B-6	(1)	CR-9	* SEE CR-9
		*	"	1B-202	" B-3	(1)	CR-9	

5850234

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
B-M-1	PRESSURE RETAINING WELDS IN VALVE BODIES	1	0 - 07/18/79	Page 22 of 40
B-M-2	VALVE BODIES			

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUEST	REMARKS
B6.6	VALVE BODY WELDS	NA	NONE	NA	NA	0		
B6.7	VALVE BODIES	*	RECIRCULATION	VARIOUS	35-2	6	CR-10	* SEE CR-10
		*	RHRS	"	37&39	8	CR-10	
		*	RX WTR CLEANUP	"	47	2	CR-10	
		*	CORE SPRAY	"	36	6	CR-10	
		*	HPCI	"	46	2	CR-10	
		*	MAIN STEAM	"	13-1&2	21	CR-10	
		*	FEEDWATER	"	15	6	CR-10	

585035

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INSERVICE INSPECTION PROGRA

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QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
B-N-1 B-N-2	INTERIOR OF REACTOR VESSELS INTEGRALLY WELDED CORE SUP. STR. & INT. ATTACH. TO RX VES.	1	0 - 07/18/79	Page 23 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.15	VESSEL INTERIOR	V-A	REACTOR VESSEL	1-201	NONE	*		* PER TABLE IWB-2500 CATEGORY B-N-1
B1.16	INTERIOR ATTACHMENTS AND CORE SUPPORT STRUCTURE	V-A	REACTOR VESSEL	1-201	NONE	**		** PER TABLE IWB-2500 CATEGORY B-N-2

585036

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-O PRESSURE RETAINING WELDS IN CONTROL ROD DRIVE HOUSING	1	0 - 07/18/79	Page 24 of

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.18	CONTROL ROD DRIVE HOUSINGS	NONE	REACTOR VESSEL	1-201	NA	32	EX-2	

5805497

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

VOL. - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-P COMPONENTS EXEMPTED FROM EXAMINATION BY IWB-1220	1	0 - 07/16/79	Page 25 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.19	EXEMPTED COMPONENTS	V-B	REACTOR VESSEL	FLANGE NOZZLES	35-2 E-4	2	EX-1	
		"	"	IN-CORE FLANGE BOLTS	NONE	53	EX-2	
		V-B	"	CRD FLANGE BOLTS	NONE	177	EX-2	
B4.11	EXEMPTED COMPONENTS	V-B	PIPING PRESSURE BOUNDARY	ALL COMPONENTS $\leq$ 1" NPS	ALL CLASS 1 P&ID'S	SEE P&IDs	EX-1	
		V-B	PIPING PRESSURE BOUNDARY	LIQUID CARRYING COMPONENTS > 1" BUT $\leq$ 2"	"	"	EX-2	
		V-B	PIPING PRESSURE BOUNDARY	STEAM CARRYING COMPONENTS > 1" BUT $\leq$ 3"	"	"	EX-3	
B5.8	EXEMPTED COMPONENTS	NA	PUMP PRESSURE BOUNDARY	NONE	NA	0		
B6.8	EXEMPTED COMPONENTS	NA	VALVE PRESSURE BOUNDARY	NONE	NA	0		

585058

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
PRESSURE TESTING	1	0-07/18/79	Page 26 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
NA	SYSTEM PRESSURE TESTING AS REQUIRED BY IWB-5000	V-B	ALL	ALL COMPONENTS	ALL CLASS 1 P&ID'S	ALL	CR-12	

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
C-A PRESSURE RETAINING WELDS IN PRESSURE VESSELS	2	0 07/18/79	Page 27 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C1.1	CIRCUMFERENTIAL BUTT WELDS	VOL	RHRS	1A-1003	37 B-2	4		RHR HT EXCHANGER
		VOL	"	1B-1003	" B-10	4		SEE FIGURE 5

5850060

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
C-B PRESSURE RETAINING NOZZLE WELDS IN VESSELS	2	0 - 07/18/79	Page 28 Of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C1.2	NOZZLE-TO-VESSEL WELDS	NONE	RHRS	1A-1003	37 B-2	(2)	CR-11	RHR HT EXCHANGER
		NONE	"	1B-1003	" B-10	(2)	CR-11	SEE FIGURE 5

585061

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
C-C INTEGRALLY WELDED SUPPORT ATTACHMENTS TO VESSELS	2	0 - 07/13/79	Page 29 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C1.3	INTEGRALLY WELDED SUPPORTS	SUR	RHRS	1A-1003	37 L-2	4		RHR HT EXCHANGER
		SUR	"	1B-1003	" B-10	4		SEE FIGURE 5

585062

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
C-D	PRESSURE RETAINING BOLTING EXCEEDING 1 INCH IN DIAMETER	2	0 - 07/18/79	Page 30 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C1.4	PRESSURE RETAINING BOLTING IN PRESSURE VESSELS	NONE	RHRS	1A-1003	37 A-2	(2)	CR-3	BOLTING FOR 2 FLANGES
		"	"	1B-1003	" A-10	(2)	CR-3	BOLTING FOR 2 FLANGES
C2.4	PRESSURE RETAINING BOLTING	"	RHRS	1-1009B-16"DX	37&39 A-10	(1)	CR-3	ITEMS LISTED INDICATES NO. OF FLANGES WITH BOLTING
		"	"	1-1015A-24"LX	" F-6	(2)	CR-3	
		"	"	1-1015B-24"LX	" A-6	(2)	CR-3	
		"	CORE SPRAY	1-1401-18"LX	36 E-3	(4)	CR-3	
		"	"	1-1402-18"LX	" E-4	(4)	CR-3	
		"	"	1-1403-12"DX	" E-6	(2)	CR-3	
		"	"	1-1404-12"DX	" E-9	(2)	CR-3	
		"	HPCI	1-2306-20"LX	46 A-6	(2)	CR-3	
		"	"	1-2306-24"LX	" A-6	(1)	CR-3	
		NONE	"	1-2304-14"C	" A-5	(2)	CR-3	
C 3.2	PRESSURE RETAINING BOLTING IN PUMPS	V-A & VOL OR SUR	HPCI	1-2302	46 A-5	1		BOLTING FOR 1 PUMP
C4.2	PRESSURE RETAINING BOLTING IN VALVES	NONE	RHRS	VARIOUS	37&39	(24)	CR-3	ITEMS LISTED INDICATES NO. OF VALVES WITH BOLTING
		"	CORE SPRAY		36	(2)	CR-3	
		NONE	HPCI		46	(5)	CR-3	

585063

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
C-E-1 SUPPORT MEMBERS FOR PIPING, VALVES, AND PUMPS	2	0 - 07/18/79	Page 31 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C2.5	INTEGRALLY WELDED SUPPORTS IN PIPING	SUR	CRD	1-0318-10"B	41	2		
		"	RHRS	1-1006A-12"DX	37&39	1		
		"	"	1-1006B-12"DX	"	1		
		"	"	1-1006C-12"DX	"	1		
		"	"	1-1006D-12"DX	"	1		
		"	"	1-1008A-18"DX	"	1		
		"	"	1-1009A-18"DX	"	4		
		"	"	1-1009B-18"DX	"	6		
		"	"	1-1010-18"DX	"	1		
		"	"	1-1012A-16"DX	"	1		
		"	"	1-1012B-16"DX	"	1		
		"	"	1-1013A-16"DX	"	1		
		"	"	1-1013B-16"DX	"	1		
		"	"	1-1015A-24"LX	"	3		
		"	"	1-1015B-24"LX	"	1		
		"	"	1-1016A-14"LX	"	1		
		"	"	1-1016B-14"LX	"	1		
		"	"	1-1016C-14"LX	"	2		
		"	"	1-1016D-14"LX	"	1		
		"	"	1-1018A-14"L	"	1		
		"	"	1-1018B-14"L	"	1		
		"	"	1-1018C-14"L	"	1		
		"	"	1-1018D-14"L	"	1		
		"	"	1-1024A-14"LX	"	1		
		"	"	1-1024B-14"LX	"	1		
		"	"	1-1024D-14"LX	"	1		
		SUR	"	1-1086-6"DX	"	1		

585064

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
C-E-1 SUPPORT MEMBERS FOR PIPING, VALVES, AND PUMPS (Cont)	2	0 - 07/18/79	Page 32 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C2.5	CONTINUED	SUR	CORE SPRAY	1-1401-18"LC	36	4		
		"	"	1-1402-18"LX	"	4		
		"	"	1-1403-12"DX	"	3		
		"	"	1-1404-12"DX	"	6		
		"	HPCI	1-2301-16"LX	46	1		
		"	"	1-2302-16"LX	"	2		
		"	"	1-2304-14"C	"	3		
		"	"	1-2305-10"B	"	2		
		"	"	1-2306-24"LX	"	2		
		"	"	1-2325-6"LX	"	1		
		SUR	"	1-2342-12"C	"	1		
C3.3	INTEGRALLY WELDED SUPPORTS IN PUMPS	NA	NONE	NA	NA	0		
C4.3	INTEGRALLY WELDED SUPPORTS IN VALVES	NA	NONE	NA	NA	0		

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
C-E-2 SUPPORT COMPONENTS FOR PIPING, VALVES, AND PUMPS	2	0 - 07/18/79	Page 33 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C2.6	SUPPORT COMPONENTS FOR PIPING	V-C	CRD	1-0318-10"B	41	4		
		"	"	1-0380A,B,C,D-8"B	"	28		
		"	RHRS	1-1006A-12"DX	37&39	1		
		"	"	1-1006B-12"DX	"	1		
		"	"	1-1006C-12"DX	"	1		
		"	"	1-1006D-12"DX	"	1		
		"	"	1-1008A-18"DX	"	3		
		"	"	1-1008B-18"DX	"	1		
		"	"	1-1009A-18"DX	"	7		
		"	"	1-1009B-18"DX	"	11		
		"	"	1-1010-18"DX	"	6		
		"	"	1-1012A-16"DX	"	4		
		"	"	1-1012B-16"DX	"	4		
		"	"	1-1013A-16"DX	"	2		
		"	"	1-1013B-16"DX	"	2		
		"	"	1-1015A-24"LX	"	3		
		"	"	1-1015B-24"LX	"	1		
		"	"	1-1016A-14"LX	"	1		
		"	"	1-1016B-14"LX	"	1		
		"	"	1-1016C-14"LX	"	2		
		"	"	1-1016D-14"LX	"	1		
		"	"	1-1018A-14"L	"	1		
		"	"	1-1018B-14"L	"	1		
		"	"	1-1018C-14"L	"	1		
		"	"	1-1018D-14"L	"	1		
		"	"	1-1024A-14"LX	"	1		
		V-C	"	1-1024B-14"LX	"	1		

585066

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
C-E-2 SUPPORT COMPONENTS FOR PIPING, VALVES, AND PUMPS (Cont)	2	0 - 07/18/79	Page 34 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
		V-C	RHRS	1-1024D-14"LX	"	1		
		"	"	1-1086-6"DX	"	8		
		"	CORE SPRAY	1-1401-18"LX	36	4		
		"	"	1-1402-18"LX	"	4		
		"	"	1-1403-12"DX	"	6		
		"	"	1-1404-12"DX	"	15		
		"	HPCI	1-2301-16"LX	46	1		
		"	"	1-2302-16"LX	"	4		
		"	"	1-2304-14"C	"	8		
		"	"	1-2305-10"B	"	11		
		"	"	1-2306-24"LX	"	7		
		"	"	1-2325-6"LX	"	9		
		"	"	1-2342-12"C	"	1		
		V-C	"	1-3204B-18"C	15	1		
C3.4	SUPPORT COMPONENTS FOR PUMPS	NA	NONE	NA	NA	0		
C4.4	SUPPORT COMPONENTS FOR VALVES	NA	NONE	NA	NA	0		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
C-F	PRESSURE RETAINING WELDS IN PIPING, PUMPS, AND VALVES IN SYSTEMS WHICH CIRCULATE REACTOR COOLANT.	2	0 - 07/18/79	Page 35 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C2.1	CIRCUMFERENTIAL BUTT WELDS	NA	NONE	NA	NA	0		
C2.2	LONGITUDINAL WELD JOINTS IN FITTINGS	NA	NONE	NA	NA	0		
C2.3	BRANCH PIPE-TO-PIPE WELD JOINTS.	NA	NONE	NA	NA	0		
C3.1	PUMP CASING WELDS	NA	NONE	NA	NA	0		
C4.1	VALVE BODY WELDS	NA	NONE	NA	NA	0		

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
C-G	PRESSURE RETAINING WELDS IN PIPING, PUMPS, AND VALVES WHICH CIRCULATE OTHER THAN REACTOR COOLANT	2	0 - 07/18/79	Page 36 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C2.1	CIRCUMFERENTIAL BUTT WELDS	NONE	ALL	COMPONENTS ≤ 4" N. P.S.	VARIOUS	ALL	EX-6	
		VOL	CRD	1-0318-10"B	41	6		
		"		1-0380A,B,C,D-8"B	"	12		
		NONE	RHRS	1-1006A,B,C,D-12"DX	37&39	33	EX-5	
		"	"	1-1008A,B-18"DX	"	40	EX-5	
		"	"	1-1009A,B-18"DX	"	81	EX-5	
		"	"	1-1010-18"DX	"	24	EX-5	
		NONE	"	1-1012A,B-16"DX	"	18	EX-5	
		VOL	"	1-1012A,B-16"A	"	2		
		NONE	"	1-1013A,B-16"DX	"	21	EX-5	
		"	"	1-1015A,B-16"DX	"	27	EX-5	
		"	"	1-1016A,B,C,D-14"DX	"	42	EX-5	
		"	"	1-1017A,B-6"DX	"	4	EX-5	
		"	"	1-1018A,B,C,D-14"L	"	9	EX-4,5	
		"	"	1-1024A,B,C,D-14"LX	"	16	EX-4,5	
		"	"	1-1029A,B-10"DX	"	3	EX-5	
		"	"	1-1086-6"DX	"	16	EX-5	
		"	CORE SPRAY	1-1401-18"LX	36	18	EX-4,5	
		"	"	1-1402-18"LX	"	18	EX-4,5	
		VOL	"	1-1403-12"A	"	3		
		VOL	"	1-1404-12"A	"	2		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
C-G	PRESSURE RETAINING WELDS IN PIPING, PUMPS, AND VALVES WHICH CIRCULATE OTHER THAN REACTOR COOLANT (Cont)	2	0 - 07/18/79	Page 37 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
		NONE	CORE SPRAY	1-1403-12"DX	"	29	EX-5	
		"	"	1-1404-12"DX	"	35	EX-5	
		"	"	1-1406-8"DX	"	2	EX-5	
		"	"	1-1409-8"DX	"	3	EX-5	
		"	"	1-1424A,B-12"LX	"	4	EX-4,5	
		NONE	HPCI	1-2301-16"LX	46	10	EX-4,5	
		"	"	1-2302-16"LX	"	24	EX-4,5	
		"	"	1-2304-14"C	"	26	EX-5	
		"	"	1-2305-10"B	"	23	EX-5	
		"	"	1-2306-24"LX	"	27	EX-5	
		"	"	1-2321-10"B	"	2	EX-5	
		"	"	1-2325-6"LX	"	14	EX-5	
		"	"	1-2339-10"B	"	1	EX-5	
		"	"	1-2342-12"C	"	4	EX-5	
		NONE	FEEDWATER	1-3204B-18"C	15	5	EX-5	
C2.2	LONGITUDINAL WELD JOINTS IN FITTINGS	NA	NONE	NA	NA	0		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
C-G	PRESSURE RETAINING WELDS IN PIPING, PUMPS, AND VALVES WHICH CIRCULATE OTHER THAN REACTOR COOLANT	2	0 - 07/18/79	Page 38 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C2.3	BRANCH PIPE-TO-PIPE WELD JOINTS	NONE	RHRS	ALL	ALL CLASS 2 P&ID'S	ALL	EX-5	
		"	CORE SPRAY			"	EX-5	
		"	HPCI			"	EX-5	
		NONE	FEEDWATER			"	EX-5	
C3.1	PUMP CASING WELDS	NA	NONE	NA	NA	0		
C4.1	VALVE BODY WELDS	NA	NONE	NA	NA	0		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY: PRESSURE TESTING | CLASS: 2 | REVISION - DATE: 0 - 7/18/79 |

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P&ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
NA	IWC-2510 EXEMPT AND NON-EXEMPT COMPONENTS	V-B	ALL	ALL LINES	ALL CLASS 2 P&IDs	ALL	CR-12	
		NONE	ALL	ALL CROSS-HATCHED LINES	ALL CLASS 2 P&IDs	ALL	EX-7	

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
PRESSURE TESTING	3	0 - 7/18/79	Page 40 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
NA	PRESSURE TESTING PER IWD-2410	V-B	D/G COOLING WATER	ALL LINES (SOLID AND SLASHED).	22	ALL	CR-12	
		NONE	"	ALL LINES (CROSS-HATCHED).	22	ALL	EX-8	
		V-B	RHRS SERVICE WATER	ALL LINES (SOLID AND SLASHED).	37&39	ALL	CR-12	
		NONE	"	ALL LINES (CROSS-HATCHED).	37&39	ALL	EX-8	
NA	VISUAL EXAMINATION OF HANGERS AND SUPPORTS PER IWD-2600(C)	V-C	D/G COOLING WATER	LINES > 4"N.P.S.	22	ALL		
		V-C	RHRS SERVICE WATER	LINES > 4"N.P.S.	37&39	ALL		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-A PRESSURE RETAINING WELDS IN VESSEL BELTLINE REGION	1	0 - 07/18/79	Page 1 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.1	LONGITUDINAL AND CIRCUMFERENTIAL SHELL WELDS IN CORE REGION	NONE	REACTOR VESSEL	2-201	NONE	(7)	CR-1	

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-B PRESSURE RETAINING WELDS IN VESSELS	1	0 - 07/17/79	Page 2 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.2	LONGITUDINAL AND CIRCUMFERENTIAL WELDS IN SHELL (OTHER THAN THOSE OF CATEGORY B-A and B-C) AND MERIDIONAL AND CIRCUMFERENTIAL SEAM WELDS IN BOTTOM HEAD AND CLOSURE HEAD (OTHER THAN THOSE OF CATEGORY B-C)	VOL	REACTOR VESSEL	2-201	NONE	10(18)	CR-2	

585075

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-C PRESSURE RETAINING WELDS, VESSEL-TO-FLANGE AND HEAD-TO-FLANGE	1	0 - 07/18/79	Page 3 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.3	VESSEL-TO-FLANGE AND HEAD-TO-FLANGE CIRCUMFERENTIAL WELDS	VOL	REACTOR VESSEL	2-201	NONE	2		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY
B-D FULL PENETRATION WELDS OF NOZZLES IN VESSELS

CLASS 1

REVISION - DATE 0 - 07/18/79

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.4	PRIMARY NOZZLE-TO-VESSEL WELDS AND NOZZLE INSIDE RADIUSED SECTION	VOL	REACTOR VESSEL	2-201	77-1&2	29		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-E PRESSURE RETAINING PARTIAL PENETRATION WELDS IN VESSELS	1	0 - 07/18/79	Page 5 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.5	VESSEL PENETRATIONS, INCLUDING CONTROL ROD DRIVE AND INSTRUMENTATION PENETRATIONS	V-B	REACTOR VESSEL	2-201	77-1&2	235		

585078

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-F PRESSURE RETAINING DISSIMILAR METAL WELDS	1	0 - 07/18/79	Page 6 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.6	NOZZLE-TO-SAFE-END WELDS	VOL&SUR	REACTOR VESSEL	2-201	77-1&2	20		
B4.1	SAFE-END-TO-PIPING WELDS AND SAFE-ENDS IN BRANCH PIPING WELDS	VOL&SUR	RX HEAD VENT	2-0215-4"	77-1 B-4	1		
		"	CRD	2-0308-3"	83 D-2	1		
		"	RHRS	2-1025-20"	81 C-6	1		
		VOL&SUR	"	2-1011-4"	81 A-6	1		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
B-G-1	PRESSURE RETAINING BOLTING, 2 INCHES DIAMETER AND LARGER	1	0 - 07/18/79	Page 7 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
	RX VESSEL:							
B1.7	CLOSURE STUDS IN PLACE	VOL	REACTOR VESSEL	2-201	NONE	92		
B1.8	CLOSURE STUDS AND NUTS, WHEN REMOVED	VOL&SUR	"	"	"	184		
B1.9	LIGAMENTS BETWEEN THREADED STUD HOLES	VOL	"	"	"	92		
B1.10	CLOSURE WASHERS, BUSHINGS	V-A	"	"	"	184		
	PIPING PRESSURE BOUNDARY:							
B4.2 B4.3 B4.4	PRESSURE-RETAINING BOLTS, STUDS AND BOLTING	NA	NONE	NA	NA	0		
	PUMPS:							
B5.1	PRESSURE-RETAINING BOLTS AND STUDS, IN PLACE	VOL	RECIRCULATION	2A&B-202	77-2 B-6,3	32		
B5.2	PRESSURE-RETAINING BOLTS AND STUDS, WHEN REMOVED	VOL&SUR	"	"	" "	*		* NUMBER OF BOLTS OR STUDS REMOVED
B5.3	PRESSURE-RETAINING BOLTING	V-A	"	"	" "	32		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-G-1 PRESSURE RETAINING BOLTING, 2 INCHES DIA AND LARGER (Cont)	1	0 - 07/18/79	Page 8 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
	VALVES:							
B6.1	PRESSURE-RETAINING BOLTS	V-A	RECIRCULATION	2-0202-4A&B	77-2 C-7,2	48	CR-3	
	AND STUDS, IN PLACE	V-A	"	2-0202-5A&B	" C-6,3	48	CR-3	
B6.2	PRESSURE-RETAINING BOLTS	V-A	RECIRCULATION	2-202-4A&B	77-2 C-7,2	*	CR-3	* NUMBER OF
	AND STUDS, WHEN REMOVED	V-A	"	2-202-5A&B	" C-6,3	*	CR-3	BOLTS AND STUDS REMOVED
B6.3	PRESSURE-RETAINING BOLTING	V-A	RECIRCULATION	2-202-4A&B	77-2 C-7,2	48		
		V-A	"	2-202-5A&B	" C-6,3	48		

5850681

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-C-2 PRESSURE RETAINING BOLTING, SMALLER THAN 2 INCHES IN DIAMETER	1	0 - 07/18/79	Page 9 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
	REACTOR VESSEL:							
B1.11	PRESSURE-RETAINING BOLTING	NA	NONE	NA	NA	0		
	PIPING:							
B4.12	PRESSURE-RETAINING BOLTING	V-A	INSTRUMENT	2-0201	NONE	1		RPV HEAD FLANGE
		"	RECIRCULATION	2-0202A-28"A	77-2 B-7	1		DECON FLANGE
		"	"	2-0202B-28"A	77-2 B-2	1		" "
		"	RX HEAD VENT	2-0215-4"A	77-1 E-4	1		FLANGE
		"	RHRS	2-1011-4"A	81 A-6	4		FLANGES
		"	MAIN STEAM	2-3001A-20"B	60-1 E-8	3		SRV FLANGES
		"	"	2-3001B-20"B	60-1 D-8	4		" "
		"	"	2-3001C-20"B	60-1 C-8	3		" "
		V-A	"	2-3001D-20"B	60-1 B-8	3		" "
	PUMPS:							
B5.9	PRESSURE-RETAINING BOLTING	NA	NONE	NA	NA	0		

585082

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-G-2 PRESSURE RETAINING BOLTING, SMALLER THAN 2 IN. IN DIA. (Cont)	1	0 - 07/18/79	Page 10 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
	VALVES							
B6.9	PRESSURE-RETAINING BOLTING	V-A	RECIRCULATION	VARIOUS	77-2	6		NO. OF ITEMS INDICATES NUMBER OF VALVES WITH BOLTING < 2".
		"	CRD	"	83	3		
		"	RHRS	"	81	10		
		"	RX WTR CLEANUP	"	88	2		
		"	CORE SPRAY	"	78	6		
		"	HPCI	"	87	2		
		"	MAIN STEAM	"	60-1&2	21		
		V-A	FEEDWATER	"	62	6		

585083

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-H VESSEL SUPPORTS	1	0 - 07/18/79	Page 11 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.12	INTEGRALLY-WELDED VESSEL SUPPORTS	VOL	REACTOR VESSEL	2-201	NONE	1		SUPPORT SKIRT

585084

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY B-I-1 INTERIOR CLAD SURFACES OF REACTOR VESSELS | CLASS 1 | REVISION - DATE 0 - 07/18/79 |

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.13	CLOSURE HEAD CLADDING	NONE	REACTOR VESSEL	2-201	NONE	(6)	CR-4	
B1.14	VESSEL CLADDING	NONE	REACTOR VESSEL	2-201	NONE	(6)	CR-4	

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY
B-J PRESSURE RETAINING WELDS IN PIPING

CLASS 1 | REVISION - DATE 0 - 07/18/79 |

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.5	CIRCUMFERENTIAL AND LONGITUDINAL PIPE WELDS	VOL	RECIRCULATION	2-0201A-28"A	77-2	B-6	10		
		"	"	2-0202A-28"A	"	E-5	8		
		"	"	2-0201B-28"A	"	B-3	10		
		"	"	2-0202B-28"A	"	E-4	10		
		"	"	2-0201-22"A	"	B-4	4		
		"	"	2-0201A-22"A	"	D-4	5		
		"	"	2-0201B-22"A	"	D-5	5		
		"	"	2-0201C-12"A	"	D-4	4		
		"	"	2-0201D-12"A	"	D-4	4		
		"	"	2-0201E-12"A	"	D-4	4		
		"	"	2-0201F-12"A	"	D-4	4		
		"	"	2-0201G-12"A	"	D-4	4		
		"	"	2-0201H-12"A	"	D-5	4		
		"	"	2-0201J-12"A	"	D-5	4		
		"	"	2-0201K-12"A	"	D-5	4		
		"	"	2-0201L-12"A	"	D-5	4		
		"	"	2-0201M-12"A	"	D-5	4		
		"	RX HEAD VENT	2-0215-4"	77-1	F-4	4		
		"	CRD RETURN	2-0308-4"A	83	D-3	16(1)	CR-5	
		"	RHRS	2-1011-4"A/B	81	A-5	30(1)	CR-5	
		"	"	2-1012A-16"A	81	B-4	14		
		"	"	2-1012B-16"B	81	B-5	17		
		"	"	2-1025-20"A	81	C-5	17		
		VOL	RX WTR CLEANUP	2-1202-6"A	88	B-6	25		

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
B-J	PRESSURE RETAINING WELDS IN PIPING (Cont)	1	0 - 07/18/79	Page 14 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.5	CONTINUED	VOL	CORE SPRAY	2-1403-10"A	78	C-3	16		
		"	"	2-1404-10"A	78	C-4	15		
		"	HPCI	2-2305-10"B	87	C-9	13		
		"	MAIN STEAM	2-3001A-20"B	60-1&2	E-8	26		
		"	"	2-3001B-20"B	"	D-8	29		
		"	"	2-3001C-20"B	"	C-8	27		
		"	"	2-3001D-20"B	"	B-8	26		
		"	FEEDWATER	2-3204A-18"C	62	E-3	11		
		"	"	2-3204B-18"C	"	F-3	12		
		"	"	2-3204C-12"C	"	F-4	6		
		"	"	2-3204D-12"C	"	F-4	8		
		"	"	2-3204E-12"C	"	E-4	5		
		VOL	"	2-3204F-12"C	"	E-4	9		

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
B-J	PRESSURE RETAINING WELDS IN PIPING (Cont)	1	0 - 07/18/79	Page 15 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.5	CONTINUED								
	(WELDS THAT ARE INACCES-	NONE	CRD	PENETRATION X-36	83	D-2	(1)	CR-6	
	SIBLE DUE TO CONTAINMENT	"	RHRS	X-17	81	A-6	(1)	"	
	PENETRATION DESIGN)	"	"	X-13A	"	B-5	(1)	"	
		"	"	X-13B	"	B-6	(1)	"	
		"	"	X-12	"	B-5	(1)	"	
		"	RX WTR CLEANUP	X-14	88	B-6	(1)	"	
		"	CORE SPRAY	X-16A	78	C-3	(1)	"	
		"	"	X-16B	"	C-4	(1)	"	
		"	HPCI	X-11	87	C-9	(1)	"	
		"	MAIN STEAM	X-7A	60-1	E-3	(1)	"	
		"	"	X-7B	"	D-3	(1)	"	
		"	"	X-7C	"	C-3	(1)	"	
		"	"	X-7D	"	B-3	(1)	"	
		"	FEEDWATER	X-9A	62	E-3	(1)	"	
		NONE	"	X-9B	"	F-3	(1)	CR-6	

8505080

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY: B-J PRESSURE RETAINING WELDS IN PIPING (Cont) | CLASS: 1 | REVISION - DATE: 0 - 07/18/79 | PAGE: Page 16 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.6	BRANCH PIPE CONNECTION WELDS EXCEEDING SIX INCH DIAMETER	VOL	RECIRCULATION	2-0201A-22"A	77-2	D-5	4		
		"	"	2-0201B-22"A		D-3	4		
		"	MAIN STEAM	2-3001A-20"B	60-1	E-8	3		
		"	"	2-3001B-20"B		D-8	4		
		"	"	2-3001C-20"B		C-8	3(1)	CR-7	10" BPC
		VOL	"	2-3001D-20"B		B-8	3		
		NONE	FEEDWATER	2-3204A-18"C	62	E-3	(1)	CR-7	12" BPC
		NONE	"	2-3204B-18"C		F-3	(1)	CR-7	12" BPC
B4.7	BRANCH PIPE CONNECTION WELDS SIX INCHES DIAMETER AND SMALLER	SUR	RECIRCULATION	2-0201A-28"A	77-2	B-6	2		
		"	"	2-0202A-28"A		E-5	1		
		"	"	2-0201B-28"A		B-3	2		
		SUR	"	2-0202B-28"A		E-4	1		
		NONE	RHRS	2-1025-20"A	81	C-5	(1)	CR-7	6" BPC
B4-8	SOCKET WELDS $\leq$ 2" NPS	NONE	VARIOUS*	NA	NA		*		* See B4.11
	SOCKET WELDS > 2" NPS	NONE	NONE	NA	NA		0		

585089

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY: B-K-1 SUPPORT MEMBERS FOR PIPING, VALVES, AND PUMPS | CLASS: 1 | REVISION - DATE: 0 - 07/18/79 |

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.9	INTEGRALLY WELDED SUPPORTS IN PIPING	VOL	RECIRCULATION	2-0201A-28"A	77-2 B-6	4		
		"	"	2-0202A-28"A	" E-5	1		
		"	"	2-0201B-28"A	" B-3	4		
		VOL	"	2-0202B-28"A	" E-4	1		
		(SUR)	"	2-0201A-22"A	" D-5	(1)	CR-8	
		(SUR)	"	2-0201B-22"A	" D-3	(1)	CR-8	
		VOL	"	2-0201-22"A	" B-4	1		
		"	CRD RETURN	2-0308-3&4"A	83 D-3	2		
		"	RHRS	2-1011-4"A/B	81 A-5	2		
		"	"	2-1012A-16"A	" B-4	4		
		"	"	2-1012B-16"A	" B-5	4		
		"	"	2-1025-20"A	" C-5	5		
		"	RX WTR CLEANUP	2-1202-6"A	88 B-6	5		
		"	CORE SPRAY	2-1403-10"A	78 C-3	2		
		"	"	2-1404-10"A	" C-4	2		
		"	HPCI	2-2305-10"B	87 C-9	2		
		"	MAIN STEAM	2-3001A-20"B	60-1&2 E-8	4		
		"	"	2-3001B-20"B	" D-8	5		
		"	"	2-3001C-20"B	" C-8	5		
		VOL	"	2-3001D-20"B	" B-8	4		

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY B-K-1 SUPPORT MEMBERS FOR PIPING, VALVES, AND PUMPS (Cont) | CLASS 1 | REVISION - DATE 0 - 07/18/79 |

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.9	CONTINUED	VOL	FEEDWATER	2-3204A-18"C	62	E-3	2		
		"	"	2-3204B-18"C	"	F-3	3		
		"	"	2-3204C-12"C	"	F-4	1		
		"	"	2-3204D-12"C	"	F-4	2		
		"	"	2-3204E-12"C	"	E-4	1		
		VOL	"	2-3204F-12"C	"	E-4	3		
B5.4	INTEGRALLY WELDED SUPPORTS FOR PUMPS	(SUR)	RECIRCULATION	2A-202	77-2	B-6	(3)	CR-8	
		(SUR)	"	2B-202	"	B-3	(3)	CR-8	
B6.4	INTEGRALLY WELDED SUPPORTS FOR VALVES	(SUR)	RECIRCULATION	2-202-5A	77-2	D-6	(1)	CR-8	
		(SUR)	"	2-202-5B	"	D-3	(1)	CR-8	

585091

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY: B-K-2 SUPPORT COMPONENTS FOR PIPING, VALVES AND PUMPS | CLASS: 1 | REVISION - DATE: 0 - 07/18/79 |

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B4.10	SUPPORT COMPONENTS FOR PIPING	V-C	RECIRCULATION	2-0201A-28"A	77-2	B-6	4		
		"	"	2-0202A-28"A	"	E-5	1		
		"	"	2-0201B-28"A	"	B-3	4		
		"	"	2-0202B-28"A	"	E-4	1		
		"	"	2-0201-22"A	"	B-4	2		
		"	"	2-0201A-22"A	"	D-4	4		
		"	"	2-0201B-22"A	"	D-5	3		
		"	CRD RETURN	2-0308-3"/4"A	83	D-3	3		
		"	RHRS	2-1011-4"A/B	81	A-5	3		
		"	"	2-1012A-16"A	"	B-4	4		
		"	"	2-1012B-16"A	"	B-5	4		
		"	"	2-1025-20"A	"	C-5	5		
		"	RX WTR CLEANUP	2-1202-6"A	"	B-6	6		
		"	CORE SPRAY	2-1403-10"A	78	C-3	4		
		"	"	2-1404-10"A	"	C-4	4		
		"	HPCI	2-2305-10"B	87	C-9	2		
		"	MAIN STEAM	2-3001A-20"B	60-1	E-8	4		
		"	"	2-3001B-20"B	"	D-8	5		
		"	"	2-3001C-20"B	"	C-8	5		
		V-C	"	2-3001D-20"B	"	B-8	4		

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
B-K-2	SUPPORT COMPONENTS FOR PIPING, VALVES AND PUMPS (Cont)	1	0 - 07/18/79	Page 20 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES		NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B.4.10	CONTINUED	V-C	FEEDWATER	2-3204A-18"C	62	E-3	2		
		"	"	2-3204B-18"C	"	F-3	3		
		"	"	2-3204C-12"C	"	F-4	1		
		"	"	2-3204D-12"C	"	F-4	2		
		"	"	2-3204E-12"C	"	E-4	1		
		V-C	"	2-3204F-12"C	"	E-4	3		
B5.5	SUPPORT COMPONENTS FOR PUMPS	V-C	RECIRCULATION	2A-202	77-2	B-6	6		
		"	"	2B-202	"	B-3	6		
B6.5	SUPPORT COMPONENTS FOR VALVES	"	RECIRCULATION	2-0202-5A	"	D-6	1		
		"	"	2-0202-5B	"	D-3	1		
		"	"	2-0202-4A	"	C-7	1		
		V-C	"	2-0202-4B	"	C-2	1		

585093

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY B-L-1 PRESSURE RETAINING WELDS IN PUMP CASINGS
B-L-2 PUMP CASINGS

CLASS: 1 | REVISION - DATE: 0 - 07/18/79 |

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B5.6	PUMP CASING WELDS	NA	NONE	NA	NA	0		
B5.7	PUMP CASINGS	*	RECIRCULATION	2A-202	77-2 B-6	(1)	CR-9	* SEE CR-9
		*	"	2B-202	" B-3	(1)	CR-9	

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY B-M-1 PRESSURE RETAINING WELDS IN VALVE BODIES
B-M-2 VALVE BODIES

CLASS 1 | REVISION - DATE 0 - 07/18/79 |

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B6.6	VALVE BODY WELDS	NA	NONE	NA	NA	0		
B6.7	VALVE BODIES	*	RECIRCULATION	VARIOUS	77-2	6	CR-10	* SEE CR-10
		*	RHRS	"	79&81	8	CR-10	
		*	RX WTR CLEANUP	"	88	2	CR-10	
		*	CORE SPRAY	"	78	6	CR-10	
		*	HPCI	"	87	2	CR-10	
		*	MAIN STEAM	"	60-1&2	21	CR-10	
		*	FEEDWATER	"	62	6	CR-10	

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
B-N-1	INTERIOR OF REACTOR VESSELS	1	0 - 07/18/79	Page 23 of 40
B-N-2	INTEGRALLY WELDED CORE SUP. STR. & INT. ATTACH. TO RX VES.			

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.15	VESSEL INTERIOR	V-A	REACTOR VESSEL	2-201	NONE	*		* PER TABLE IWB-2500 CATEGORY B-N-1
B1.16	INTERIOR ATTACHMENTS AND CORE SUPPORT STRUCTURE	V-A	REACTOR VESSEL	2-201	NONE	**		** PER TABLE IWB-2500 CATEGORY B-N-2

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
B-O PRESSURE RETAINING WELDS IN CONTROL ROD DRIVE HOUSING	1	0 - 07/18/79	Page 24 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.18	CONTROL ROD DRIVE HOUSINGS	NONE	REACTOR VESSEL	2-201	NA	32	EX-2	

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY B-P COMPONENTS EXEMPTED FROM EXAMINATION BY IWB-1220 | CLASS 1 | REVISION - DATE 0 - 07/18/79 | PAGE Page 25 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
B1.19	EXEMPTED COMPONENTS	V-B	REACTOR VESSEL	FLANGE NOZZLES	77-2 E-4	2	EX-1	
		"		IN-CORE FLANGE BOLTS	NONE	53	EX-2	
		V-B		CRD FLANGE BOLTS	NONE	177	EX-2	
B4.11	EXEMPTED COMPONENTS	V-B	PIPING PRESSURE BOUNDARY	ALL COMPONENTS ≤ 1" NPS	ALL CLASS 1 P&ID'S	SEE P&IDs	EX-1	
		V-B	PIPING PRESSURE BOUNDARY	LIQUID CARRYING COMPONENTS > 1" BUT ≤ 2"	"	"	EX-2	
		V-B	PIPING PRESSURE BOUNDARY	STEAM CARRYING COMPONENTS > 1" BUT ≤ 3"	"	"	EX-3	
B5.8	EXEMPTED COMPONENTS	NA	PUMP PRESSURE BOUNDARY	NONE	NA	0		
B6.8	EXEMPTED COMPONENTS	NA	VALVE PRESSURE BOUNDARY	NONE	NA	0		

585098

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
PRESSURE TESTING	1	0-07/18/79	Page 26 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
NA	SYSTEM PRESSURE TESTING AS REQUIRED BY IWB-5000	V-B	ALL	ALL COMPONENTS	ALL CLASS 1 P&ID'S	ALL	CR-12	

585099

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY: C-A PRESSURE RETAINING WELDS IN PRESSURE VESSELS | CLASS: 2 | REVISION - DATE: 0-07/18/79 |

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C1.1	CIRCUMFERENTIAL BUTT WELDS	VOL	RHRS	2A-1003	79 B-2	4		RHR HT EXCHANGER
		VOL	"	2B-1003	" B-10	4		SEE FIGURE 5

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
C-B PRESSURE RETAINING NOZZLE WELDS IN VESSELS	2	0 - 07/18/79	Page 28 Of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C1.2	NOZZLE-TO-VESSEL WELDS	NONE	RHRS	2A-1003	79 B-2	(2)	CR-11	RHR HT EXCHANGER
		NONE	"	2B-1003	" B-10	(2)	CR-11	SEE FIGURE 5

585161

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
C-C INTEGRALLY WELDED SUPPORT ATTACHMENTS TO VESSELS	2	0 - 07/18/79	Page 29 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C1.3	INTEGRALLY WELDED SUPPORTS	SUR	RHRS	2A-1003	79 B-2	4		RHR HT EXCHANGER
		SUR	"	2B-1003	" B-10	4		SEE FIGURE 5

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY: C-D PRESSURE RETAINING BOLTING EXCEEDING 1 INCH IN DIAMETER | CLASS: 2 | REVISION - DATE: 0 - 07/18/79 | PAGE: Page 30 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C1.4	PRESSURE RETAINING BOLTING IN PRESSURE VESSELS	NONE	RHRS	2A-1003	79 A-2	(2)	CR-3	BOLTING FOR 2 FLANGES
		"	"	2B-1003	" A-10	(2)	CR-3	BOLTING FOR 2 FLANGES
C2.4	PRESSURE RETAINING BOLTING	"	RHRS	2-1009B-16"DX	79&81 A-10	(1)	CR-3	ITEMS LISTED
		"	"	2-1015A-24"LX	" F-6	(2)	CR-3	INDICATES NO.
		"	"	2-1015B-24"LX	" A-6	(2)	CR-3	OF FLANGES
		"	CORE SPRAY	2-1401-18"LX	78 E-3	(4)	CR-3	WITH BOLTING
		"	"	2-1402-18"LX	" E-4	(4)	CR-3	
		"	"	2-1403-12"DX	" E-6	(2)	CR-3	
		"	"	2-1404-12"DX	" E-9	(2)	CR-3	
		"	HPCI	2-2306-20"LX	87 A-6	(2)	CR-3	
		"	"	2-2306-24"LX	" A-6	(1)	CR-3	
		NONE	"	2-2304-14"C	" A-5	(2)	CR-3	
C-3.2	PRESSURE RETAINING BOLTING IN PUMPS	V-A & VOL OR SUR	HPCI	2-2302	87 A-5	1		BOLTING FOR 1 PUMP
C4.2	PRESSURE RETAINING BOLTING IN VALVES	NONE	RHRS	VARIOUS	79&81	(24)	CR-3	ITEMS LISTED
		"	CORE SPRAY		78	(2)	CR-3	INDICATE NO.
		NONE	HPCI		87	(5)	CR-3	OF VALVES WITH BOLTING

585103

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
C-E-1 SUPPORT MEMBERS FOR PIPING, VALVES, AND PUMPS	2	0 - 07/18/79	Page 31 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C2.5	INTEGRALLY WELDED SUPPORTS IN PIPING	SUR	CRD	2-0318-10"B	83	2		
		"	RHRS	2-1006A-12"DX	79&81	1		
		"	"	2-1006B-12"DX	"	1		
		"	"	2-1006C-12"DX	"	1		
		"	"	2-1006D-12"DX	"	1		
		"	"	2-1008A-18"DX	"	1		
		"	"	2-1008B-18"DX	"	2		
		"	"	2-1009A-18"DX	"	5		
		"	"	2-1009B-18"DX	"	4		
		"	"	2-1010-18"DX	"	2		
		"	"	2-1012A-16"DX	"	1		
		"	"	2-1013A-16"DX	"	1		
		"	"	2-1013B-16"DX	"	1		
		"	"	2-1015A-24"LX	"	1		
		"	"	2-1015B-24"LX	"	2		
		"	"	2-1016A-14"LX	"	1		
		"	"	2-1016B-14"LX	"	1		
		"	"	2-1016C-14"LX	"	1		
		"	"	2-1016D-14"LX	"	1		
		"	"	2-1018A-14"L	"	1		
		"	"	2-1018B-14"L	"	1		
		"	"	2-1018C-14"L	"	1		
		"	"	2-1018D-14"L	"	1		
		"	"	2-1024A-14"LX	"	1		
		"	"	2-1024C-14"LX	"	1		
		SUR	"	2-1024D-14"LX	"	1		

585164

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
C-E-1 SUPPORT MEMBERS FOR PIPING, VALVES, AND PUMPS (Cont)	2	0 - 07/18/79	Page 32 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C2.5	CONTINUED	SUR	CORE SPRAY	2-1401-18"LC	78	3		
		"	"	2-1402-18"LX	"	3		
		"	"	2-1403-12"DX	"	4		
		"	"	2-1404-12"DX	"	5		
		"	"	2-1409-8"DX	"	1		
		"	HPCI	2-2301-16"LX	87	2		
		"	"	2-2302-16"LX	"	5		
		"	"	2-2304-14"C	"	5		
		"	"	2-2305-10"B	"	3		
		SUR	"	2-2306-24"LX	"	2		
C3.3	INTEGRALLY WELDED SUPPORTS IN PUMPS	NA	NONE	NA	NA	0		
C4.3	INTEGRALLY WELDED SUPPORTS IN VALVES	NA	NONE	NA	NA	0		

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
C-E-2	SUPPORT COMPONENTS FOR PIPING, VALVES, AND PUMPS	2	0 - 07/18/79	Page 33 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C2.6	SUPPORT COMPONENTS FOR PIPING	V-C	CRD	2-0318-10"B	83	4		
		"	"	2-0380A,B,C,D-8"B	"	28		
		"	RHRS	2-1006A-12"DX	79&81	1		
		"	"	2-1006B-12"DX	"	1		
		"	"	2-1006C-12"DX	"	1		
		"	"	2-1006D-12"DX	"	1		
		"	"	2-1008A-18"DX	"	3		
		"	"	2-1008B-18"DX	"	2		
		"	"	2-1009A-18"DX	"	6		
		"	"	2-1009B-18"DX	"	9		
		"	"	2-1010-18"DX	"	6		
		"	"	2-1012A-16"DX	"	5		
		"	"	2-1012B-16"DX	"	6		
		"	"	2-1013A-16"DX	"	2		
		"	"	2-1013B-16"DX	"	2		
		"	"	2-1015A-24"LX	"	1		
		"	"	2-1015B-24"LX	"	2		
		"	"	2-1016A-14"LX	"	1		
		"	"	2-1016B-14"LX	"	3		
		"	"	2-1016C-14"LX	"	1		
		"	"	2-1016D-14"LX	"	1		
		"	"	2-1018A-14"L	"	1		
		"	"	2-1018B-14"L	"	1		
		"	"	2-1018C-14"L	"	1		
		"	"	2-1018D-14"L	"	1		
		"	"	2-1024A-14"LX	"	1		
		V-C	"	2-1024C-14"LX	"	1		

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
C-E-2 SUPPORT COMPONENTS FOR PIPING, VALVES, AND PUMPS (Cont)	2	0 - 07/18/79	Page 34 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
		V-C	RHRS	2-1024D-14"LX	"	1		
		"	"	2-1086-6"DX	"	7		
		"	CORE SPRAY	2-1401-18"LX	78	3		
		"	"	2-1402-18"LX	"	3		
		"	"	2-1403-12"DX	"	8		
		"	"	2-1404-12"DX	"	16		
		"	"	2-1406-8"DX	"	3		
		"	"	2-1409-8"DX	"	1		
		"	HPCI	2-2301-16"LX	87	8		
		"	"	2-2302-16"LX	"	6		
		"	"	2-2304-14"C	"	8		
		"	"	2-2305-10"B	"	8		
		"	"	2-2306-24"LX	"	7		
		V-C	FEEDWATER	2-3204B-18"C	62	1		
C3.4	SUPPORT COMPONENTS FOR PUMPS	NA	NONE	NA	NA	0		
C4.4	SUPPORT COMPONENTS FOR VALVES	NA	NONE	NA	NA	0		

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
C-F	PRESSURE RETAINING WELDS IN PIPING, PUMPS, AND VALVES IN SYSTEMS WHICH CIRCULATE REACTOR COOLANT.	2	0 - 07/18/79	Page 35 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C2.1	CIRCUMFERENTIAL BUTT WELDS	NA	NONE	NA	NA	0		
C2.2	LONGITUDINAL WELD JOINTS IN FITTINGS	NA	NONE	NA	NA	0		
C2.3	BRANCH PIPE-TO-PIPE WELD JOINTS.	NA	NONE	NA	NA	0		
C3.1	PUMP CASING WELDS	NA	NONE	NA	NA	0		
C4.1	VALVE BODY WELDS	NA	NONE	NA	NA	0		

585108

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
C-G	PRESSURE RETAINING WELDS IN PIPING, PUMPS, AND VALVES WHICH CIRCULATE OTHER THAN RX COOLANT	2	0 - 07/18/79	Page 36 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C2.1	CIRCUMFERENTIAL BUTT WELDS	NONE	ALL	COMPONENTS ≤ 4" N. P.S.	VARIOUS	ALL	EX-6	
		VOL	CRD	2-0318-10"B	83	6		
		"		2-0380A,B,C,D-8"B	"	12		
		NONE	RHRS	2-1006A,B,C,D-12"DX	79&81	26	EX-5	
		"	"	2-1008A,B-18"DX	"	44	EX-5	
		"	"	2-1009A,B-18"DX	"	85	EX-5	
		"	"	2-1010-18"DX	"	24	EX-5	
		NONE	"	2-1012A,B-16"DX	"	18	EX-5	
		VOL	"	2-1012A,B-16"A	"	2		
		NONE	"	2-1013A,B-16"DX	"	23	EX-5	
		"	"	2-1015A,B-16"DX	"	27	EX-5	
		"	"	2-1016A,B,C,D-14"DX	"	47	EX-5	
		"	"	2-1017A,B-6"DX	"	6	EX-5	
		"	"	2-1018A,B,C,D-14"L	"	8	EX-4,5	
		"	"	2-1024A,B,C,D-14"LX	"	16	EX-4,5	
		"	"	2-1029A,B-10"DX	"	3	EX-5	
		"	"	2-1086-6"DX	"	18	EX-5	
		"	CORE SPRAY	2-1401-18"LX	78	15	EX-4,5	
		"	"	2-1402-18"LX	"	15	EX-4,5	
		VOL	"	2-1403-12"A	"	3		
		VOL	"	2-1404-12"A	"	2		

585169

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INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY C-G PRESSURE RETAINING WELDS IN PIPING, PUMPS, AND VALVES WHICH CIRCULATE OTHER THAN RX COOLANT (Cont)

CLASS 2 | REVISION - DATE 0 - 07/18/79 |

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
		NONE	CORE SPRAY	2-1403-12"DX	"	32	EX-5	
		"	"	2-1404-12"DX	"	48	EX-5	
		"	"	2-1406-8"DX	"	7	EX-5	
		"	"	2-1409-8"DX	"	2	EX-5	
		NONE	"	2-1424A,B-12"LX	"	2	EX-4,5	
		NONE	HPCI	2-2301-16"LX	87	26	EX-4,5	
		"	"	2-2302-16"LX	"	41	EX-4,5	
		"	"	2-2304-14"C	"	36	EX-5	
		"	"	2-2305-10"B	"	37	EX-5	
		"	"	2-2306-24"LX	"	23	EX-5	
		"	"	2-2325-6"LX	"	3	EX-5	
		"	"	2-2342-12"C	"	3	EX-5	
		NONE	FEEDWATER	2-3204B-18"C	62	5	EX-5	
C2.2	LONGITUDINAL WELD JOINTS IN FITTINGS	NA	NONE	NA	NA	0		

585110

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY		CLASS	REVISION - DATE	PAGE
C-G	PRESSURE RETAINING WELDS IN PIPING, PUMPS, AND VALVES WHICH CIRCULATE OTHER THAN REACTOR COOLANT	2	0 - 07/18/79	Page 38 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
C2.3	BRANCH PIPE-TO-PIPE WELD JOINTS	NONE	RHRS	ALL	ALL CLASS 2 P&ID'S	ALL	EX-5	
		"	CORE SPRAY			ALL	EX-5	
		"	HPCI			ALL	EX-5	
		NONE	FEEDWATER			ALL	EX-5	
C3.1	PUMP CASING WELDS	NA	NONE	NA	NA	0		
C4.1	VALVE BODY WELDS	NA	NONE	NA	NA	0		

585144

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY: PRESSURE TESTING | CLASS: 2 | REVISION - DATE: 0 - 7/18/79 | PAGE: Page 39 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
NA	IWC-2510 EXEMPT AND NON-EXEMPT COMPONENTS	V-B	ALL	ALL LINES	ALL CLASS 2 P&IDs	ALL	CR-12	
		NONE	ALL	ALL CROSS-HATCHED LINES	ALL CLASS 2 P&IDs	ALL	EX-7	

585112

Commonwealth Edison

INSERVICE INSPECTION PROGRAM

ISI - CLASS 1, 2 & 3 COMPONENTS
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

CODE CATEGORY	CLASS	REVISION - DATE	PAGE
PRESSURE TESTING	3	0 - 7/18/79	Page 40 of 40

ITEM NUMBER	ITEM DESCRIPTION	EXAM METHOD	SYSTEM	LINE OR COMPONENT NUMBER	P & ID AND COORDINATES	NUMBER OF ITEMS	RELIEF REQUESTS	REMARKS
NA	PRESSURE TESTING PER IWD-2410	V-B	D/G COOLING WATER	ALL LINES (SOLID AND SLASHED).	69	ALL	CR-12	
		NONE	"	ALL LINES (CROSS-HATCHED).	69	ALL	EX-8	
		V-B	RHRS SERVICE WATER	ALL LINES (SOLID AND SLASHED).	79&81	ALL	CR-12	
		NONE	"	ALL LINES (CROSS-HATCHED).	79&81	ALL	EX-8	
NA	VISUAL EXAMINATION OF	V-C	D/G COOLING WATER	LINES > 4"N.P.S.	69	ALL		
	HANGERS AND SUPPORTS PER IWD-2600(C)	V-C	RHRS SERVICE WATER	LINES > 4"N.P.S.	79&81	ALL		

SECTION 2.3

RELIEF REQUESTS FOR INSERVICE INSPECTION PROGRAM

585114

RELIEF REQUEST NO. CR-1

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

The reactor vessel is designed with one circumferential and six longitudinal welds in the core beltline region as shown on Figure 1.

The ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition through the Summer 1975 Addenda requires a volumetric examination of ten percent of the length of each longitudinal weld and five percent of the length of each circumferential weld each ten year interval (Code Category B-A).

Relief is requested from the above mentioned Code requirements on the basis of inaccessibility.

II. BASIS FOR RELIEF

Accessibility for examination of these welds was not provided for in the original plant design which occurred prior to the issuance of Section XI inservice inspection requirements.

As indicated on Figure 1, examination from the reactor vessel outer surface is precluded due to the close proximity to the biological shield wall and obstruction by the vessel insulation.

The mirror type insulation consists of interlocking panels which were not designed to be easily removed at the weld locations. Furthermore, the annular dimensions between the shield wall and the insulation is not sufficient to allow direct access for personnel. Access through the biological shield wall is only provided at reactor vessel nozzle locations, however, there are no nozzle penetrations in the beltline region.

Examination of the beltline region welds from inside the vessel is impeded by vessel internal design features. The core shroud, jet pumps, and various brackets welded to the vessel wall are not designed to be removed.

III. ALTERNATE PROVISIONS

Currently, it is not feasible to perform the required volumetric examinations on these welds. Commonwealth Edison will, however, keep abreast of improvements in state-of-the-art NDE techniques that could provide a viable means of examination.

585115

RELIEF REQUEST NO. CR-2

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

The reactor vessel contains thirteen longitudinal welds and five circumferential welds in the shell sections and bottom head which are inaccessible for examination, in addition to the beltline region welds addressed in Relief Request CR-1.

Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition through the Summer 1975 Addenda requires a volumetric examination of ten percent of the length of each longitudinal shell weld and five percent of each circumferential shell and head weld each inspection interval (Code Category B-B).

As shown on Figure 1, all of the reactor vessel closure head welds are fully accessible for examination as are the vessel and head-to-flange welds and the three longitudinal welds in the upper shell course (No. 4).

The remaining shell and bottom head welds, however, are inaccessible for examination.

585116

II. BASIS FOR RELIEF

As discussed in Relief Request CR-1, accessibility for examination of these welds was not considered in the plant design. There is no access through the biological shield wall or between the wall and the vessel to permit examination of the shell welds from the vessel outer surface. Similarly, the bottom head welds cannot be examined because of the limited physical access, the inability to remove vessel insulation panels, and the interference from the forest of control rod drives and instrumentation penetrations.

III ALTERNATE PROVISIONS

Currently, it is not feasible to perform the required volumetric examinations on these welds. Commonwealth Edison will, however, keep abreast of improvements in state-of-the-art NDE techniques that could provide a viable means of examination.

RELIEF REQUEST NO. CR-3

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

This relief request addresses the Section XI Examination Categories B-G-1 and B-G-2 for Class-1 bolting, and C-D for Class-2 bolting. Category B-G-1 in the 1974 Edition of the ASME Code, Summer 1975 Addenda covers bolting two-inches and greater in diameter and B-G-2 covers bolting less than two-inches in diameter. Category C-D covers bolting that exceeds one-inch in diameter.

However, in later editions of the Code, Class-1 bolting exactly two-inches in diameter is shifted from Category B-G-1 to B-G-2 by revision of the category definition.

Similarly, Class-2 bolting between one and two-inch diameter is eliminated from Category C-D of the later editions of the Code.

Quad Cities Station concurs with the Category definitions of later Editions of Section XI for Examination Categories B-G-1, B-G-2, and C-D and accordingly request permission to adopt these definitions.

II. BASIS FOR RELIEF

This request for relief involves substitution of requirements from later Editions of the ASME Code. Adopting the more practical requirements from these later editions will provide continuity between the inspection program for this period and the program for subsequent intervals while reducing overall radiation exposure to inspection personnel. Plant safety margins will be unaffected by this change since modifications in the Code requirements are technically justified.

III. ALTERNATE PROVISIONS

Visual examinations will be performed as specified in the appropriate Code Category for the bolting shifted from Category B-G-1 to B-G-2. No alternate or augmented examinations are required for the bolting affected in Category C-D.

RELIEF REQUEST NO. CR-4

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

The reactor vessel and associated closure head are stainless steel cladded on the interior surfaces. Six patches, each having a 36 square inch area, are selected for examination in accessible locations of the reactor vessel shell and closure head.

The ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition through the Summer 1975 Addenda requires that the clad patches in the reactor vessel be visually examined each interval. In addition, for closure head patches a visual and a surface or volumetric examination is required each interval.

For the reasons described below, these examination requirements are unrealistic since they offer no meaningful check of reactor vessel integrity.

II. BASIS FOR RELIEF

Analysis has shown that flaws which initiate in the reactor vessel cladding at locations other than nozzles do not propagate through the clad-base metal interface. Therefore, their existence poses no threat to reactor vessel integrity. The nozzle areas are covered by the requirement to examine the inner radii

volumetrically to detect the presence of flaws which may have propagated into base metal. Accordingly, the ASME has completely eliminated the B-I-1 and B-I-2 Examination Categories from later Editions of Section XI.

Performing these examinations only constitutes a needless exposure of personnel to radiation with no compensatory increase in safety. Quad Cities Station, therefore, will not perform the above mentioned examinations for the remainder of the present inspection interval. The examinations will not be required for subsequent intervals since the requirements have been deleted from the Code.

III. ALTERNATE PROVISIONS

No alternate or augmented examinations are necessary in this case.

RELIEF REQUEST NO. CR-5

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

Two Class-1 piping welds are physically inaccessible for examination. The weld is in the Control Rod Drive System is on line number 0308-4", the other weld is in the RHR System on line number 1011-4". The weld in the CRD System cannot be examined because of interference from a structural support as shown on Figure 4. The weld in the RHR System is located just above the point at which the line penetrates the floor separating the reactor cavity and the drywell. The inaccessibility is due to the presence of a water barrier and sleeve arrangement as shown on Figure 4.

Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition including the Summer 1975 Addenda requires that twenty-five percent of the total number of circumferential pipe welds be volumetrically examined each ten year interval (Code Category B-J).

It is unlikely that these welds will be inspectable at any time during the plant life. Relief is, therefore, requested from performing the volumetric examination requirements of Section XI.

II. BASIS FOR RELIEF

The implications of this exemption are minimal due to the fact that safety margins inherent in the design of the subject welds are typical of those in all other welds in the Class-1 systems. Exempting these two welds from the total inspection sampling program will have negligible statistical significance.

III. ALTERNATE PROVISIONS

No alternate or augmented examinations are feasible or necessary in this case. The examinations required by IWB-5000 will, however, be conducted in accordance with the Code.

585123

II. BASIS FOR RELIEF

As stated in 10 CFR50.55a (g)(1) for plants whose construction permits were issued prior to January 1, 1971, components shall meet Section XI requirements to the extent practical. Since examination requirements for these welds did not exist at the time Quad Cities Station was designed, accessibility for their examination was not a prime consideration. Figure-2 clearly illustrates the design constraints which make it extremely impractical to examine the subject welds by volumetric or surface techniques. Commonwealth Edison feels that this constitutes a basis for relief from the volumetric examination requirements of Section XI.

The safety implications of this exemption are minimal due to the fact that the safety margins in the subject welds are typical of those in all welds in the applicable systems. Since the exempted welds represent only a small fraction of the total number of welds in these systems (15 out of 445), the statistical significance to the inspection sampling program due to exempting these welds is expected to be negligible.

III. ALTERNATE PROVISIONS

At the present time no alternate examinations are feasible because of the inaccessibility. However, the examinations required by IWB-5000 will be conducted in accordance with the Code.

RELIEF REQUEST NO. CR-7

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

The design of certain Class-1 branch pipe connection welds calls for the use of reinforcement saddles. These saddles are fillet welded over the actual pressure retaining branch pipe to main pipe weld, completely incasing it as illustrated on Figure 3. As listed in the program, there is one such weld that is six inches in diameter and three welds that are greater than 6 inches.

Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition through the Summer 1975 Addenda requires that branch pipe connection welds exceeding six inches diameter be examined volumetrically and those six inch diameter and smaller be surface examined. Twenty-five percent of these welds are required to be examined each inspection interval (Code Category B-J).

Relief from this requirement is requested due to the physical inaccessibility of the design.

II. BASIS FOR RELIEF

The fabrication of these joints precludes any type of surface examination or meaningful volumetric examination. Additional assurance of the continued integrity of joints fabricated in this

fashion is afforded by the fact that the reinforcement saddle strengthens the joint and reduces the stresses on the internal weld.

III. ALTERNATE PROVISIONS

A visual examination of these joints for evidence of leakage will be conducted during the pressure tests required by IWB-5000.

585127

RELIEF REQUEST NO. CR-8

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

In the Class-1 system there are ten integrally welded supports whose support lugs are welded to cast stainless steel components. Specifically, six are welded to the recirculation pump casings, two are welded to the bodies of recirculation valves 0202-5A and 5B, and two are welded to a stainless steel crosses in the recirculation ring header piping.

Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition through the Summer 1975 Addenda requires a volumetric inspection of each integrally welded support attachment each ten year interval (Code Category B-K-1).

This examination requirement is impractical for these support attachments because of the material structure and weld geometry.

II. BASIS FOR RELIEF

The high ultrasonic beam attenuation of the cast stainless steel base material and the weld geometry inhibit meaningful examination of the ten subject support attachments by either ultrasonic or radiographic methods. The substitution of a surface examination, however, would be sufficient to determine the integrity of

these attachment welds and the surrounding base metal since flaws which would be expected to occur in these areas would originate from the outer surface.

III. ALTERNATE PROVISIONS

A surface examination will be substituted for the required volumetric examination for these components.

RELIEF REQUEST NO. CR-9

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

Each Quad Cities Unit has an ISI Class-1 recirculation pump in each of the two 28-inch diameter recirculation loops. These pumps function during normal reactor operation to provide forced recirculation through the core.

The ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition through the Summer 1975 Addenda requires that one of these recirculation pumps be examined visually during each inspection interval. Specifically, the area of examination includes all pump internal pressure boundary surfaces.

As discussed, in detail below, Quad Cities Station requests relief from the Section XI examination requirement to visually examine the recirculation pump internal surfaces on the basis of impracticality.

II. BASIS FOR RELIEF

The basis for this relief request is predicated on the following two points:

585130

1) to complete the subject examination, large expenditures of manhours and man-rem are required with essentially no compensating increase in plant safety, and

2) the structural integrity afforded by the pump casing material utilized will not significantly degrade over the lifetime of the pump.

Based on data compiled from an actual recirculation pump disassembly, it is expected that approximately 1000 man-hours and 50 man-rem exposure would be required to disassemble, inspect and reassemble one pump. Performing this visual examination under adverse conditions such as high dose rate (30-40 R/hr) and poor as-cast surface condition, realistically, provides little additional information as to the pump casing integrity.

The recirculation pump casing material, cast stainless steel (ASTM A351-CF-8), is widely used in the nuclear industry and has performed extremely well. The presence of some delta ferrite (typically 5% or more) imparts substantially increased resistance to intergranular stress corrosion cracking. The delta ferrite also results in improved pitting corrosion resistance in chloride containing environments.

Commonwealth Edison feels that adequate safety margins are inherent in the basic pump design and that the health and safety of the public will not be adversely effected by performing the

visual examination of the pump internal pressure boundary surfaces only when the pumps are required to be disassembled for maintenance.

III. ALTERNATE PROVISIONS

As stated above, it is not felt that the visual examination required by Code each ten year interval is warranted. However, as standard maintenance practice dictates, when a pump of this type is disassembled for maintenance, examination of the pump internals and internal pressure boundary surfaces will be performed, to the extent practical.

RELIEF REQUEST NO. CR-10

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

In the Class-1 system there are 51 valves which are greater than four inches nominal pipe size. These valves vary in size, design and manufacturer but are all manufactured from either cast stainless steel or carbon steel. None of the valve body casings are welded.

Section XI of the ASME Code, 1974 Edition through the Summer 1975 Addenda requires a visual examination of the internal pressure boundary surfaces of one valve in each group of valves of the same constructional design, manufacturing method and manufacturer that perform similar functions in the system. These examinations are required to be completed each inspection interval. (Code Category B-M-2)

Since these examinations must be met whether or not the valves have to be disassembled for maintenance, this requirement is considered impractical to implement.

II. BASIS FOR RELIEF

The requirement to disassemble primary system valves for the sole purpose of performing a visual examination of the internal pres

sure boundary surfaces has only a very small potential of increasing plant safety margins and a very disproportionate impact on expenditures of plant manpower and radiation exposure.

Performing these visual examinations under such adverse conditions as high dose rates (10 R/hr) and poor as-cast surface condition, realistically, provides little additional information as to the valve casing integrity.

For approximately 20 percent of these valves, the reactor vessel core must be completely unloaded and the vessel drained to permit disassembly for examination.

The performance of both carbon and stainless cast valve bodies has been excellent in all BWR applications. Based on this experience and both industry and regulatory acceptance of these alloys, continued excellent service performance is anticipated.

A more practical approach that would essentially provide an equivalent sampling program and significantly reduce radiation exposure to plant personnel is to examine the internal pressure boundary of only those valves that require disassembly for maintenance purposes. This would still provide a reasonable sampling of primary system valves and give adequate assurance that the integrity of these components is being maintained.

III. ALTERNATE PROVISIONS

An examination of the internal pressure boundary surfaces will be performed, to the extent practical, each time a valve is disassembled for maintenance purposes.

RELIEF REQUEST NO. CR-11

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, 1974 Edition through the Summer 1975 Addenda requires a volumetric examination of two of these four nozzle-to-shell welds in the service lifetime of the unit. 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

A visual examination for evidence of leakage will be conducted in accordance with the Subsection IWC-5000 requirements.

RELIEF REQUEST NO. CR-12

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

The pressure retaining components within each system boundary are subject to system pressure tests. These test requirements are not only an important part of inservice inspection but also demand clarity in their application. The hydrostatic test requirements in the 1974 Edition of Section XI are not as definitive as in later editions and addenda of the Code and for this reason, misinterpretation or misapplication could occur.

The later editions of the Code have revised various requirements regarding these system pressure tests which Quad Cities Station feels are more practical to implement. Therefore, the following pressure testing requirements will be adopted:

1) The requirements of IWC&D 5200(a) in the 1974 Edition of the ASME Code, Section XI will be replaced with the following: The system hydrostatic test pressure shall be at least 1.10 times the system pressure Psv for systems with design temperature of 200°F or less, and at least 1.25 times the system pressure Psv for systems with Design Temperature above 200°F. The system pressure Psv is defined as the lowest pressure setting among the number of safety or relief valves provided for overpres

sure protection within the boundary of the system to be tested.

2) The following requirements regarding the holding time after pressurization (before visual examination) will be adopted for clarity.

a) System Leakage Tests - no holding time required after attaining test pressure and temperature conditions.

b) System Functional Tests - 10 minutes after attaining the system operating pressure.

c) System Inservice Tests - no holding time required, provided the system has been in operation for at least 4 hours.

d) System Hydrostatic Tests - 4 hours after attaining the test pressure and temperature conditions for insulated systems, and 10 minutes for noninsulated systems or components.

e) System Pneumatic Tests - 10 minutes after attaining the test pressure.

II. BASIS FOR RELIEF

This request for relief involves the substitution of requirements from later Editions of the ASME Code. Substituting these more definitive and practical requirements will not only provide continuity between the inspection program for this period and the program for subsequent intervals, but will also help reduce radiation exposure to inspection personnel. Plant safety margins will be unaffected by these substitutions since modification in the Code requirements are technically justified.

III. ALTERNATE PROVISIONS

No alternate or augmented examinations are necessary in this case.

585140

RELIEF REQUEST NO. CR-13

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENTS

Quad Cities Station currently utilizes some calibration blocks which lack documentation consistent with the requirements of current editions of the Code. The documentation requirements existing at the time of their fabrication did not require traceability to the material's chemical or physical certifications. As a result, the only documentation available for the existing blocks is verification of the appropriate P-number grouping.

The Section XI requirements of the 1974 Edition of the ASME Code including the 1975 Addenda specify traceability of the calibration block material to a material specification.

Relief is requested from these documentation requirements to allow the continued use of the existing calibration blocks.

II. BASIS FOR RELIEF

Previous inservice inspections have been performed utilizing the above mentioned blocks and their use would provide continuity in the ISI Program. It would be impractical to fabricate new

585141

calibration blocks in order to satisfy the documentation requirements of the current Code. Existing records which indicate the appropriate material P-grouping provide adequate assurance that the blocks will establish the proper ultrasonic calibration and sensitivity.

III. ALTERNATE PROVISIONS

All future calibration blocks will be fabricated from material having the appropriate documentation as required by the Code in effect at the time of procurement.

RELIEF REQUEST NO. CR-14

I. IDENTIFICATION OF COMPONENTS AND IMPRACTICAL CODE REQUIREMENT

The rules of Article 5 of Section V recommend that UT indications which produce a response greater than 20% of the reference level be investigated to the extent that the operator can evaluate the shape, identity and location of all such reflectors in terms of the acceptance-rejection standards of Section XI.

The ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition through Summer 1975 Addenda states that the provisions of Article 5 of Section V shall apply where Appendix I is not applicable. However, in later editions of Section XI, the rules of Article 5, Section V were amended such that only reflectors producing a response greater than 50% of the reference level are to be recorded, and that all reflectors producing a response greater than 100% of the reference level shall be investigated to the extent that the operator can determine the shape, identity and location of all such reflectors in terms of the acceptance-rejection standards of Section XI.

Commonwealth Edison concurs with the requirements of the later Code and addenda and therefore, a request for relief from the earlier requirement is sought.

II. BASIS FOR RELIEF

As a result of the "noise" level in the typical UT response and the weld geometries present, no meaningful information is obtained from indications producing responses less than 50% of the reference level. Therefore, adopting the more current and practical requirements of Section XI is justified. In fact, the requirement to record these non-relevant indications results in excessive examination times and personnel radiation exposures. It is felt that the levels for recording and evaluating indications specified in the later Codes are adequate and sufficiently reliable in detecting flaws.

III. ALTERNATE PROVISIONS

For examinations conducted to the requirements of Article 5 of Section V, the recording level shall be 50% of the reference level and all indications exceeding 100% of the reference level shall be investigated to the extent that the operator can determine the shape, identity and location of all such reflectors in terms of the acceptance-rejection standards of Section XI.

585144

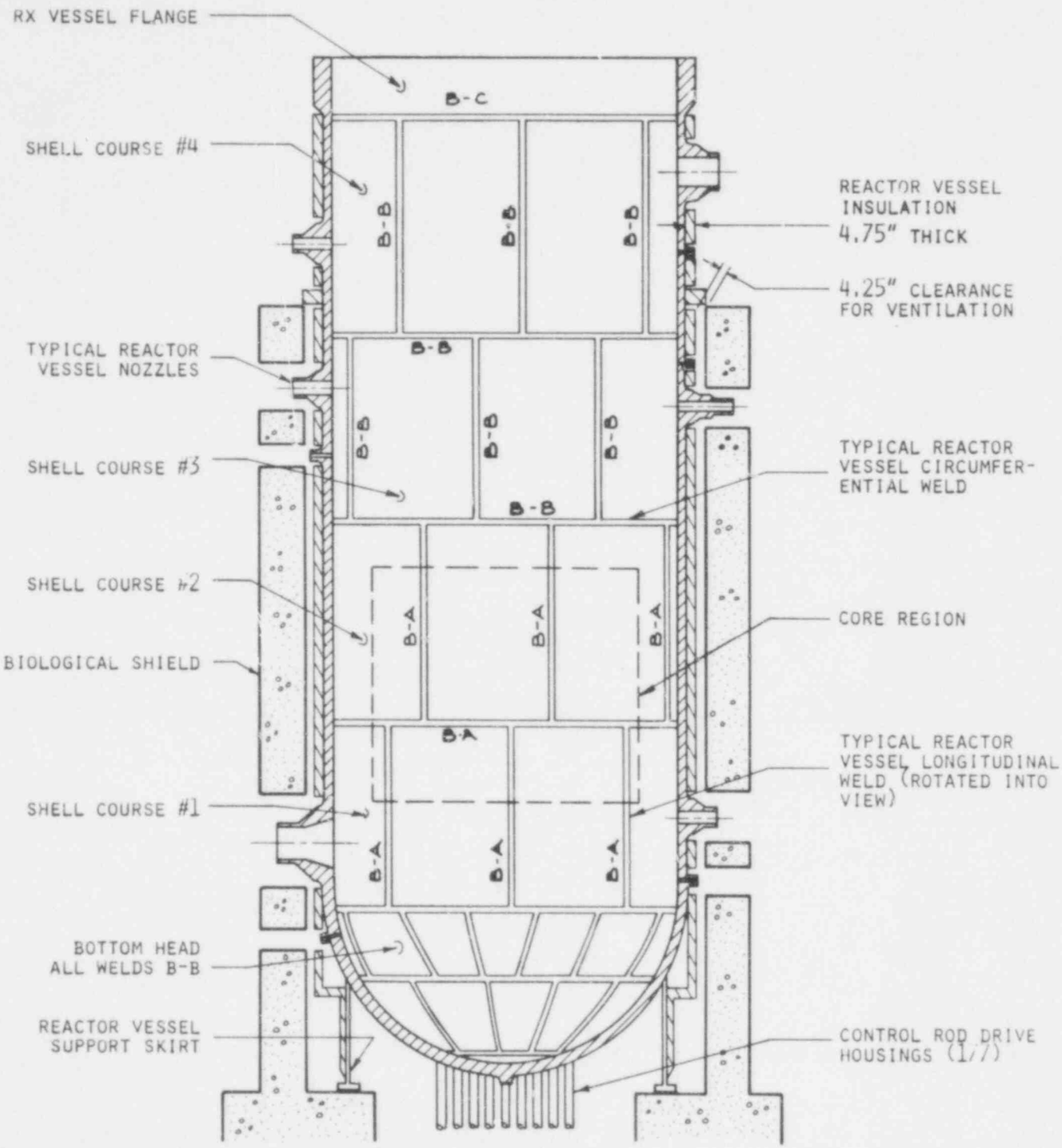


FIGURE 1

REACTOR VESSEL WELD IDENTIFICATION

585145

REVISION 0
7/18/79

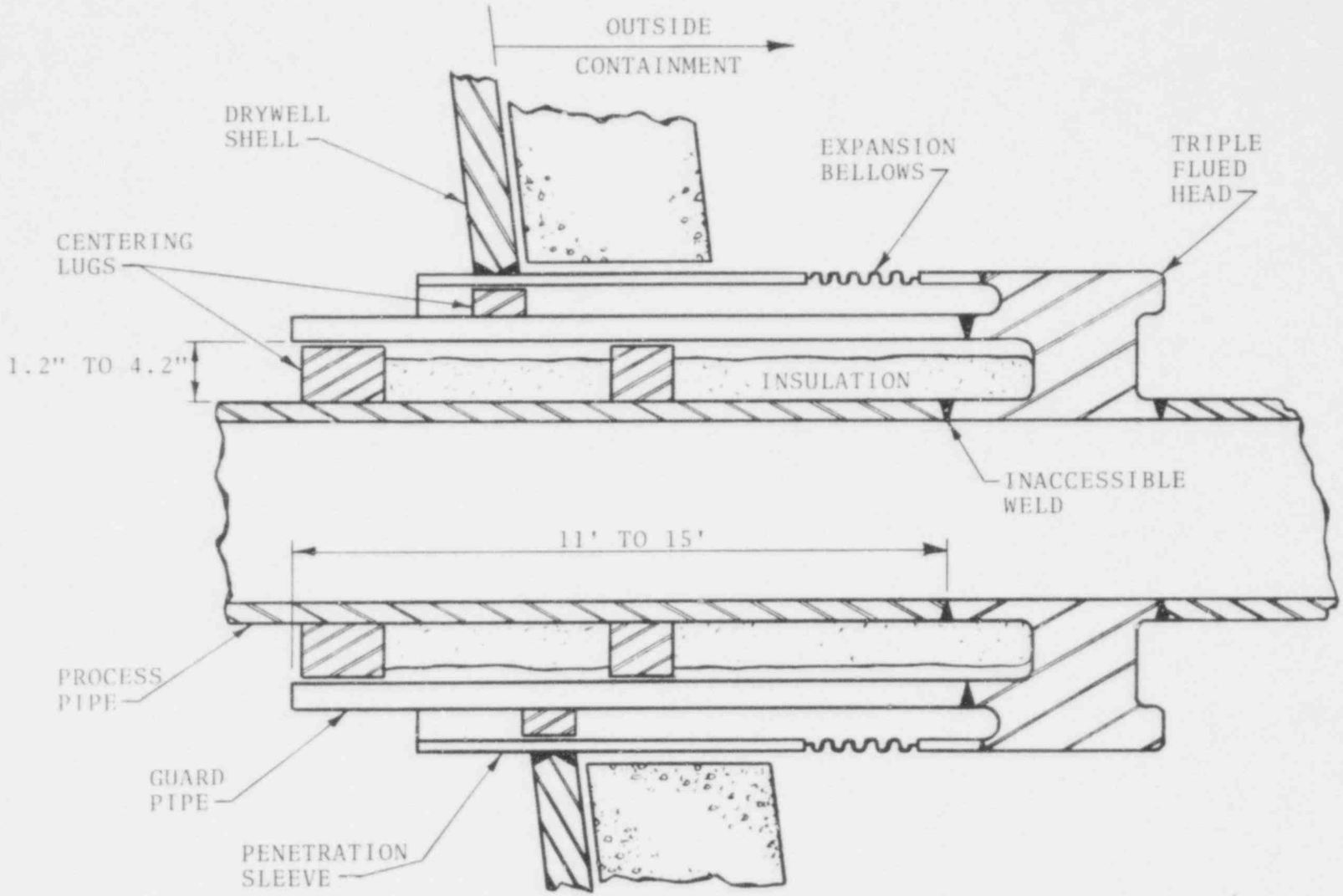
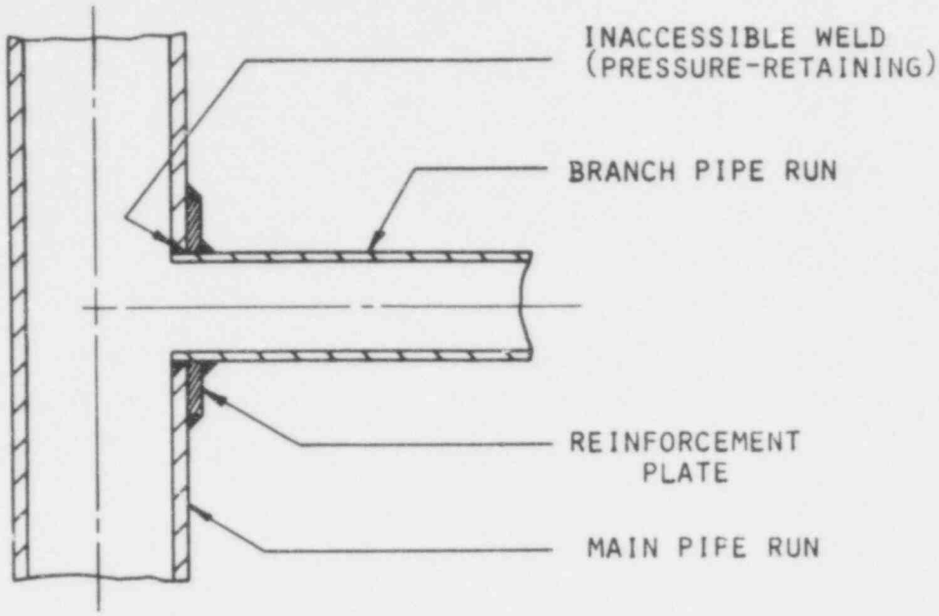


FIGURE 2

TYPICAL DESIGN OF PRIMARY CONTAINMENT PENETRATION



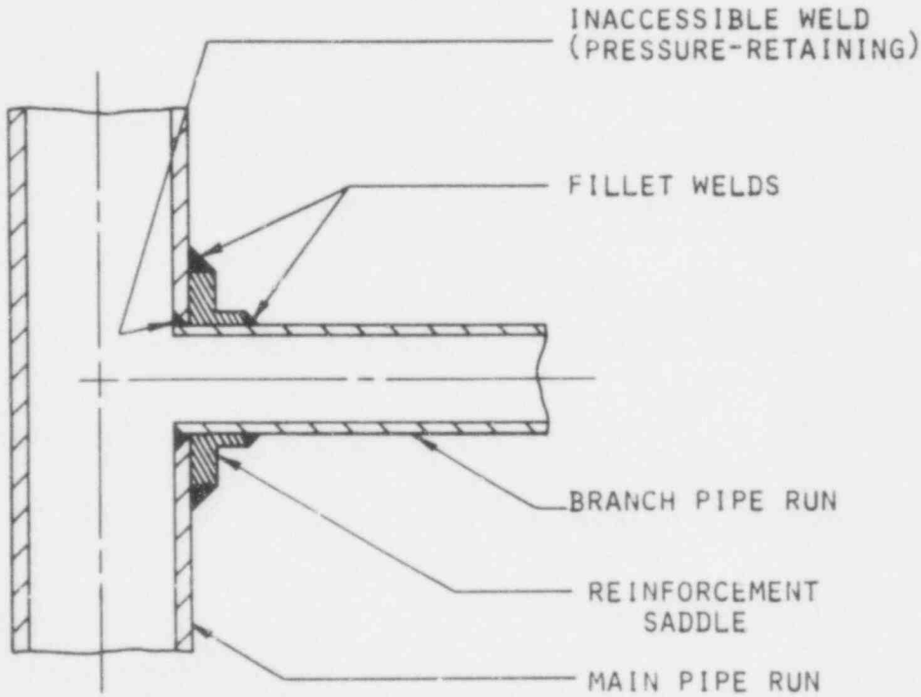
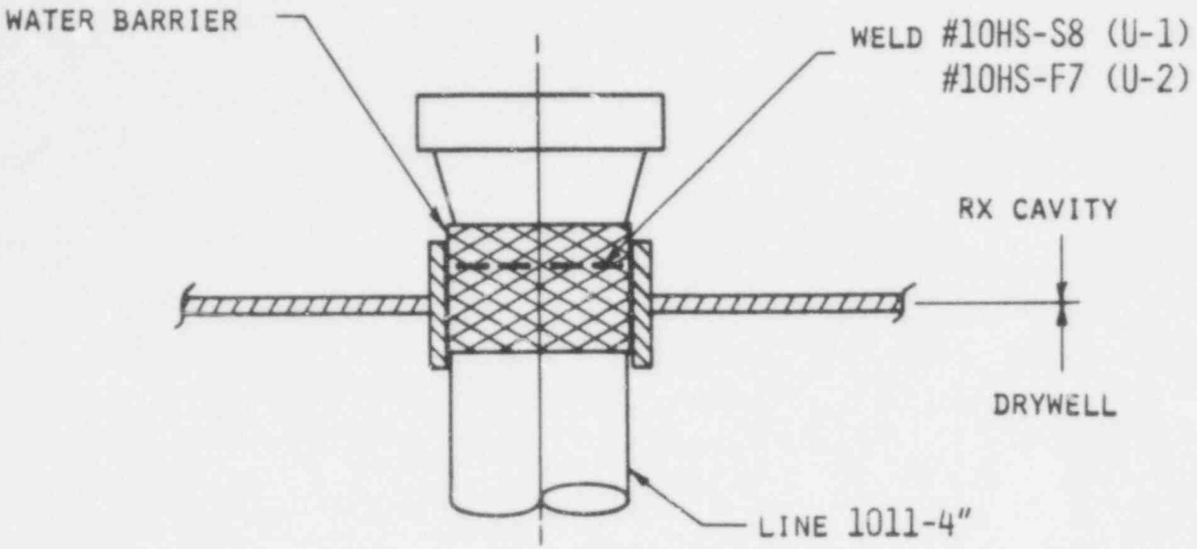


FIGURE 3

TYPES OF REINFORCED BRANCH PIPE CONNECTIONS



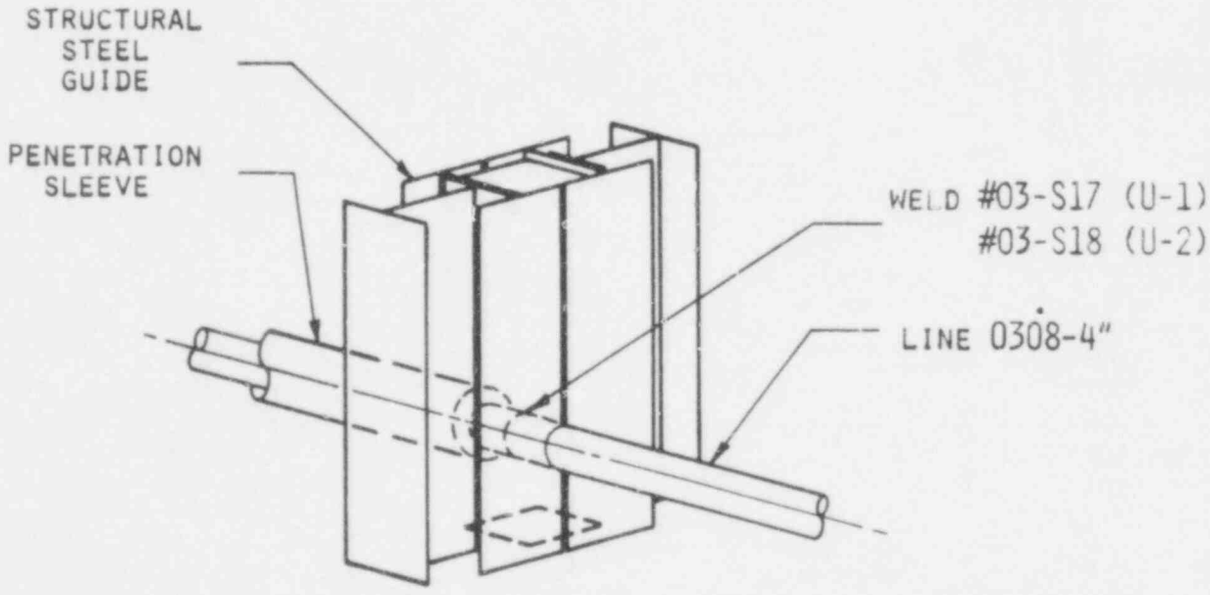


FIGURE 4

WELD OBSTRUCTION DETAILS

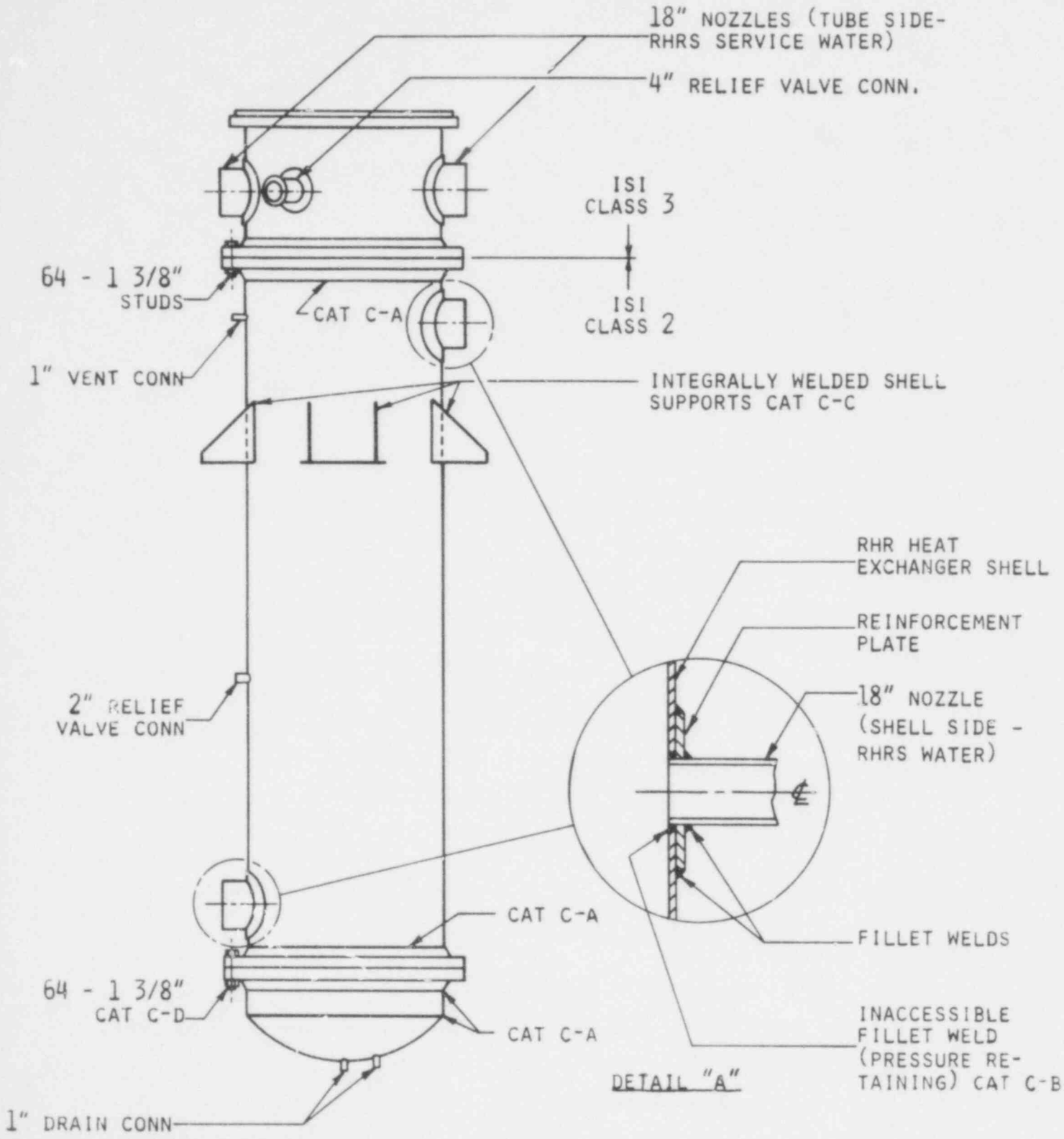


FIGURE 5

RHRS HEAT EXCHANGERS

3.0 INSERVICE TESTING PROGRAM FOR PUMPS

3.1 GENERAL INFORMATION

The Inservice Testing Program for ISI Class 1, 2 and 3 Pumps meets the requirements of Subsection IWP of Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition through the Summer 1975 Addenda. Where these requirements are determined to be impractical, specific requests for relief have been written.

The tables in Section 3.2 list all Class 1, 2 and 3 pumps to be tested along with the parameters to be measured for each pump unless reference is made to a relief request. Section 3.3 includes all relief requests referenced in the tables plus any additional relief requests that are generic to the pump testing program.

It should be noted that pump speed is not measured for synchronous type pumps per IWP-4400. Where pump suction is from a tank or the river, inlet pressure will be calculated from the measured tank or river level. The flow rate for the standby liquid control pumps will be calculated by observing the volume of liquid pumped into a test tank over a given period to time.

SECTION 3.2

TABLES FOR INSERVICE PUMP TESTING PROGRAM

A. QUAD CITIES UNIT-1

B. QUAD CITIES UNIT-2

585151

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 PUMPS

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

REVISION - DATE	PAGE
0 - 07/18/79	1 of 1

PUMP NUMBER	PUMP NAME	CLASS	P & ID AND COORDINATES	TEST PARAMETERS						TEST INTERVAL
				SPEED	INLET PRES	DIFF PRES	FLOW RATE	VIBRATION	BEARING TEMP	
1A-1401	CORE SPRAY	2	36 E-9	NO	YES	YES	YES	PR-1	PR-1	PR-2
1B-1401	CORE SPRAY	2	36 E-6	NO	YES	YES	YES	PR-1	PR-1	PR-2
1A-1002	RESIDUAL HEAT REMOVAL	2	37 B-4	NO	YES	YES	YES	PR-1	PR-1	PR-2
1B-1002	RESIDUAL HEAT REMOVAL	2	37 E-4	NO	YES	YES	YES	PR-1	PR-1	PR-2
1C-1002	RESIDUAL HEAT REMOVAL	2	37 B-8	NO	YES	YES	YES	PR-1	PR-1	PR-2
1D-1002	RESIDUAL HEAT REMOVAL	2	37 E-8	NO	YES	YES	YES	PR-1	PR-1	PR-2
1-1001-65A	RHR SERVICE WATER	3	39 F-4	NO	YES	YES	YES	PR-1	PR-1	PR-2
1-1001-65B	RHR SERVICE WATER	3	39 F-4	NO	YES	YES	YES	PR-1	PR-1	PR-2
1-1001-65C	RHR SERVICE WATER	3	39 F-7	NO	YES	YES	YES	PR-1	PR-1	PR-2
1-1001-65D	RHR SERVICE WATER	3	39 F-7	NO	YES	YES	YES	PR-1	PR-1	PR-2
1A-1102	STANDBY LIQUID CONTROL	2	40 D-7	NO	YES	YES	YES	PR-1	PR-1	PR-2
1B-1102	STANDBY LIQUID CONTROL	2	40 E-7	NO	YES	YES	YES	PR-1	PR-1	PR-2
1-2302	HIGH PRES COOLANT INJ	2	46 A-4	YES	YES	YES	YES	PR-1	PR-1	PR-2
1-3903	D/G COOLING WATER	3	22 A-10	NO	YES	YES	YES	PR-1	PR-1	PR-2
1/2-3903	D/G COOLING WATER	3	22 A-10	NO	YES	YES	YES	PR-1	PR-1	PR-2

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 PUMPS

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

REVISION - DATE	PAGE
0 - 07/18/79	1 of 1

PUMP NUMBER	PUMP NAME	CLASS	P & ID AND COORDINATES	TEST PARAMETERS						TEST INTERVAL
				SPEED	INLET PRES	DIFF PRES	FLOW RATE	VIBRATION	BEARING TEMP	
2A-1401	CORE SPRAY	2	78 E-9	NO	YES	YES	YES	PR-1	PR-1	PR-2
2B-1401	CORE SPRAY	2	78 E-6	NO	YES	YES	YES	PR-1	PR-1	PR-2
2A-1002	RESIDUAL HEAT REMOVAL	2	79 B-4	NO	YES	YES	YES	PR-1	PR-1	PR-2
2B-1002	RESIDUAL HEAT REMOVAL	2	79 E-4	NO	YES	YES	YES	PR-1	PR-1	PR-2
2C-1002	RESIDUAL HEAT REMOVAL	2	79 B-8	NO	YES	YES	YES	PR-1	PR-1	PR-2
2D-1002	RESIDUAL HEAT REMOVAL	2	79 E-8	NO	YES	YES	YES	PR-1	PR-1	PR-2
2-1001-65A	RHR SERVICE WATER	3	81 F-4	NO	YES	YES	YES	PR-1	PR-1	PR-2
2-1001-65B	RHR SERVICE WATER	3	81 F-4	NO	YES	YES	YES	PR-1	PR-1	PR-2
2-1001-65C	RHR SERVICE WATER	3	81 F-7	NO	YES	YES	YES	PR-1	PR-1	PR-2
2-1001-65D	RHR SERVICE WATER	3	81 F-7	NO	YES	YES	YES	PR-1	PR-1	PR-2
2A-1102	STANDBY LIQUID CONTROL	2	82 D-7	NO	YES	YES	YES	PR-1	PR-1	PR-2
2B-1102	STANDBY LIQUID CONTROL	2	82 E-7	NO	YES	YES	YES	PR-1	PR-1	PR-2
2-2302	HIGH PRES COOLANT INJ	2	87 A-4	YES	YES	YES	YES	PR-1	PR-1	PR-2
2-3903	D/G COOLING WATER	3	69 A-10	NO	YES	YES	YES	PR-1	PR-1	PR-2

SECTION 3.3

RELIEF REQUESTS FOR INSERVICE PUMP TESTING PROGRAM

585154

RELIEF REQUEST NO. PR-1

PUMP NUMBER: All pumps in program.

SECTION XI REQUIREMENT: Detection of mechanical change per IWP-1700.

BASIS FOR RELIEF: Subsection IWP of Section XI requires that pump vibration and bearing temperature be measured to detect any changes in the mechanical characteristics of a pump. The specified units for measurement of peak-to-peak vibration amplitude are in thousands of an inch (mils).

Quad Cities Station requests relief from the Code requirements to measure pump vibration amplitude and bearing temperature. The station proposes an alternative means of detecting changes in the mechanical characteristics of a pump which is considered to be more accurate and more sensitive than the methods specified in the Code, thereby leading to earlier detection of potential mechanical problems.

The alternative proposed is to make periodic measurements of pump vibration velocity in inches per second. These velocity measurements detect not only the high amplitude vibrations that indicate a major mechanical problem, but also the equally harmful low amplitude-high frequency vibrations due

to misalignment, inbalance, or bearing wear that usually go undetected by simple displacement measurements. Because these velocity measurements are sensitive enough to detect subtle changes in the condition of bearings as well as other moving pump components, bearing temperature readings need not be taken.

This proposed alternative will provide more meaningful data and provide for earlier detection of potential pump problems resulting in a better preventative maintenance program and in enhanced safety margins.

ALTERNATIVE TESTING: Vibration velocity measurements will be taken to detect changes in the mechanical condition of the pump. These readings will be evaluated in accordance with the attached chart.

585156

ALLOWABLE RANGES OF TEST QUANTITIES

QUANTITY		ACCEPTABLE RANGE	ALERT RANGE LOW VALUES	ALERT RANGE HIGH VALUES	REQUIRED ACTION RANGE LOW VALUES	REQUIRED ACTION RANGE HIGH VALUES
v	When $0 \leq v_r \leq .15$ in/sec	0 to .3 in/sec	None	.3 in/sec to .45 in/sec	None	v > .45 in/sec
v	When .15 in/sec < v_r < .3 in/sec	0 to .45 in/sec	None	.45 in/sec to .75 in/sec	None	v > .75 in/sec
v	When .3 in/sec < v_r < .6 in/sec	0 to 0.9 in/sec	None	0.9 to 1.5 in/sec	None	v > 1.5 in/sec
v	When .6 in/sec < v_r < 1.0 in/sec	0 to 1.1 in/sec	None	1.1 to 1.5 in/sec	None	v > 1.5 in/sec

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Where:

v = velocity measured in inches/second, peak.

v_r = reference velocity measurement (initial measurement after installation or rework.

RELIEF REQUEST NO. PR-2

PUMP NUMBER: All pumps in program.

SECTION XI REQUIREMENT: Measure pump parameters monthly.

BASIS FOR RELIEF: Relief is requested from the requirements of Subsection IWP-3400 to measure the basic pump parameters identified in Table IWP-3100-1 on a monthly basis. Changes in these hydraulic and mechanical parameters will not significantly change over the period of one month because the pumps are primarily run only for operability and remain in a standby mode of operation. Quarterly measurement of these parameters is more than adequate in determining pump degradation.

The original intent to require monthly testing was based on the premise that damage can occur to bearings if a pump remains stagnant for long periods of time. This concern can be mitigated by running pumps on a monthly basis to lubricate the main bearings.

A change to the Code of a similar nature, recently passed the Section XI Main Committee and will be published in a forthcoming Addenda to Section XI. It is not felt that this relief request represents a relaxation in safety require-

585158

rents, only that it allows more practical implementation of Section XI requirements.

ALTERNATE TESTING: All pumps will be exercised on a monthly basis to lubricate the bearings. Pump parameters will be measured quarterly.

585159

RELIEF REQUEST NO. PR-3

PUMP NUMBER: All pumps in the program.

SECTION XI REQUIREMENT: The requirements of IWP-3230(c), Corrective Action.

BASIS FOR RELIEF: Relief is requested from the requirements of IWP3230(c) regarding corrective action when pump parameters are found to be within the "Required Action Range" of Table IWP-3100-2. Some means should be allowed for conducting an analysis to demonstrate that the condition of a pump does not impair pump operability and that the pump can still perform its intended function. Later editions of the Code do address this concern by allowing such an analysis to serve as the corrective action.

ALTERNATE TESTING: When measured pump parameters fall into the "Required Action Range", pump operability and corrective action will be based on the limits specified in the Limiting Conditions for Operation of the plant Technical Specifications. A pump may remain operable if it meets all Technical Specification requirements and an analysis indicates that, even though a pump parameter is in the "Required Action Range", the pump can still fulfill its intended functions.

585160

4.0 INSERVICE TESTING PROGRAM FOR VALVES

4.1 GENERAL INFORMATION

The Inservice Testing Program for ISI Class 1, 2 and 3 Valves meets the requirements of Subsection IWV of Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition through the Summer 1975 Addenda. Where these requirements are determined to be impractical, specific requests for relief have been written and included in Section 4.3.

The tables in Section 4.2 list all ISI Class 1, 2 and 3 valves that have been assigned valve categories; valves exempt per IWV-1300 are not listed. The tables are organized by system in order of the assigned system number. A list of these systems and their respective P&ID numbers is given in Table 4.1-1. The following information is included in the tables:

A. Valve Number lists the valve identification number as shown on the color-coded P&IDs. The first digit of the valve number indicates the appropriate unit.

B. P&ID and Coordinates references the color-coded P&ID on which the valve appears and its coordinates.

C. Class is the ISI Classification of the valve. All primary containment valves have been included in the program, even though some do not have an ISI Classification. These valves are designed as Class NC (Not Classified).

D. Valve Category indicates the category assigned to the valve based on the definitions of IWV-2110. One exception to this is the incorporation of the active and passive valve concept into the program as discussed in relief request VR-18. Category designations such as AP, BP or CP indicate that the valve is passive.

E. Valve Size lists the nominal pipe size of the valve in inches.

F. Valve Type lists the valve design as indicated by the following abbreviations.

GATE	GA
GLOBE	GL
CHECK	CK
SAFETY	SV
RELIEF	RV

585162

ELECTROMATIC RELIEF	ERV
BUTTERFLY	BTF
STOP CHECK	SCK
BALL	BALL
RUPTURE DIAPHRAM	RPD

G. Actuator Type lists the type of valve actuator as indicated by the following abbreviations.

MOTOR OPERATOR	MO
AIR OPERATOR	AO
SOLENOID OPERATOR	SO
PILOT SOLENOID ACTUATOR	PS
EXPLOSIVE ACTUATOR	EXP
SELF ACTUATED	SA
MANUAL	M

H. Valve Position indicates the normal position of the valve during plant operation; either normally open (O) or normally closed (C).

I. Stroke Direction indicates the direction which an active valve must strcke to perform its safety function. Also, the direction in which the valve will be stroked to satisfy the exercising requirements of IWV-3410 or IWV-3520. This may be specified as open (O), closed (C), or both (O&C).

585163

J. Test lists the test or tests that will be performed for each valve to fulfill the requirements of Subsection IWV. The following tests and abbreviations are used:

Seat Leak Test Valve will be seat leak tested at the appropriate functional differential pressure. (See VR-15)	AT
Full Stroke Exercise Test Valve will be full stroke exercised for operability in the direction necessary to fulfill its safety function.	BT
Partial Exercise Test Valve will be part-stroke exercised when full stroke exercising is impractical.	BTP
Check Valve Exercise Test Check valve will be exercised fully open, closed or both depending on the safety function of the valve.	CT-1

585164

Relief Valve Set Point Check — CT-2

Relief and safety valve set points will be verified in accordance with IWV-3510.

Explosive Valve Tests — DT

Explosive valves will be tested in accordance with IWV-3610.

Fail-Safe Test — FST

All valves with fail-safe actuators will be tested to verify proper fail-safe operation upon loss of actuator power.

Position Indication Check — PIT

All valves with remote position indicators that are inaccessible for direct observation during normal plant operation will be checked to verify that remote valve indications accurately reflect valve operation.

K. Test Mode indicates the frequency at which the above mentioned tests will be performed. The following abbreviations are used:

Normal Operation OP

Valve Tests with this designation will be performed once every three months.

Cold Shutdown CS

Valve testing at cold shutdown is valve testing which commences not later than seventy-two (72) hours after cold shutdown and continues until required testing is completed or plant startup, whichever occurs first. Completion of all required valve testing is not a requisite to plant startup. Valve testing which is not completed during a cold shutdown will be performed during subsequent cold shutdowns to meet the Code specified testing requirements. No valve will be tested more often than once every 90 days.

NOTE: It is expected that the required valve testing will normally be completed in 96 hours following cold shutdown. However, completion of all valve testing during cold shutdown is not required if plant operating conditions will not permit the testing of specific valves.

Reactor Refueling RR

Valve Tests with this designation will be conducted at reactor refueling outages only.

L. Max Stroke Time lists the maximum allowed full stroke time in seconds for valves requiring a BT.

M. Relief Request references the relief request contained in Section 4.3 that applies to the particular valve. Also included in Section 4.3 are generic relief requests that are not specifically referenced in this column of the tables, but apply to the valve program in general.

N. Remarks lists clarification remarks or indicates that a valve receives an automatic isolation signal. See Table 4.1-2 for the explanation of isolation groupings.

TABLE 4.1-1

LIST OF SYSTEMS INCLUDED IN THE VALVE PROGRAM

SYSTEM	SYSTEM NUMBER	UNIT-1 REFERENCE P&ID	UNIT-2 REFERENCE P&ID
Recirculation	0200	35-2	77-2
Control Rod Drive	0300	41	83
Residual Heat Removal	1000	37&39	79&81
Standby Liquid Control	1100	40	82
Reactor Water Cleanup	1200	47	88
Reactor Core Isolation Cooling	1300	50	89
Core Spray	1400	36	78
Pressure Suppression	1600	34	76
High Pressure Coolant Injection	2300	46	87
Main Steam	3000	13-1&2	60-1&2
Feedwater	3200	15	62
Service Water	3900	22	69
Instrument Air	4700	24-2	71-2
Rx Building Equipment Drains	4800	43	85

TABLE 4.1-2

AUTOMATIC ISOLATION VALVE GROUPINGS

Group 1: The valves in Group 1 are closed upon any one of the following conditions:

1. Reactor low-low water level
2. Main steamline high radiation
3. Main steamline high flow
4. Main steamline tunnel high temperature
5. Main steamline low pressure

Group 2: The actions in Group 2 are initiated by any one of the following conditions:

1. Reactor low water level
2. High drywell pressure

Group 3: Reactor low water level alone initiates the following:

1. Cleanup demineralizer system isolation

Group 4: Isolation valves in the high pressure coolant injection system (HPCI) are closed upon any one of the following signals:

1. HPCI steamline high flow
2. High temperature in the vicinity of the HPCI steamline
3. Low reactor pressure

Group 5: Same as Group 4 except applies to RCIC

585169

SECTION 4.2

TABLES FOR INSERVICE VALVE TESTING PROGRAM

A. QUAD CITIES UNIT-1

B. QUAD CITIES UNIT-2

585170

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
RECIRCULATION	ISI-35 Sh. 2	0 - 07/18/79	1 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX STROKE TIME	RELIEF REQUEST	REMARKS
1-202-5A	D-6	1	B	28	GA	MO	O	C	BT PIT	CS RR	45	VR-6	
1-202-5B	D-3	1	B	28	GA	MO	O	C	BT PIT	CS	45	VR-6	
1-202-6A	B-5	1	BP	22	GA	MO	C		NA				
1-202-6B	C-4	1	BP	22	GA	MO	C		NA				
1-202-9A	B-5	1	BP	2	GA	MO	O		NA				
1-202-9B	C-4	1	BP	2	GA	MO	C		NA				
1-220-44	E-3	1	A	0.75	GL	AO	O	C	AT BT PIT FST	RR OP RR OP	5		GROUP 1 ISOLATION
1-220-45	E-3	1	A	0.75	GL	AO	O	C	AT BT FST	RR OP OP	5		GROUP 1 ISOLATION

5851471

Commonwealth Edison

INSERVICE TESTING PROGRA

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
CONTROL ROD DRIVE	ISI-41	0 - 07/18/78	2 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
(177) 1-0305-127	D-9	1	B	0.75	GA	AO	C	O	BT	*		VR-11	* SCRAM TESTING
(177) 1-0305-126	D-10	1	B	1.0	GA	AO	C	O	BT	*		VR-11	" "
(177) 1-0305-114	E-9	2	C	0.75	CK	SA	C	O	CT-1	*		VR-11	" "
1-0302-21A	F-2	2	B	1.0	GL	AO	O	C	BT FST	OP OP			
1-0302-21B	F-7	2	B	1.0	GL	AO	O	C	BT FST	OP OP			
1-0302-22	F-3	2	B	2.0	GL	AO	O	C	BT FST	OP OP			
1-0301-23	F-3	2	C	0.75	RV	SA	C	O	CT-2	RR			

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM: RESIDUAL HEAT REMOVAL | P & ID: ISI-37 | REVISION - DATE: 0 - 07/18/79 | PAGE: 3 of 22

SSI 7/3

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-1001-7A	B-6	2	BP	14	GA	MO	O		NA				
1-1001-7B	E-6	2	BP	14	GA	MO	O		NA				
1-1001-7C	B-6	2	BP	14	GA	MO	O		NA				
1-1001-7D	E-6	2	BP	14	GA	MO	O		NA				
1-1001-67A	B-3	2	C	12	CK	SA	C	O	CT-1	OP			
1-1001-67B	E-3	2	C	12	CK	SA	C	O	CT-1	OP			
1-1001-67C	B-9	2	C	12	CK	SA	C	O	CT-1	OP			
1-1001-67D	E-9	2	C	12	CK	SA	C	O	CT-1	OP			
1-1001-125A	B-5	2	C	1	RV	SA	C	O	CT-2	RR			
1-1001-125B	E-5	2	C	1	RV	SA	C	O	CT-2	RR			
1-1001-125C	B-7	2	C	1	RV	SA	C	O	CT-2	RR			
1-1001-125D	E-7	2	C	1	RV	SA	C	O	CT-2	RR			
1-1001-43A	B-4	2	B	14	GA	MO	O&C	C	BT	CS	105	VR-9	
1-1001-43B	E-4	2	B	14	GA	MO	O&C	C	BT	CS	105	VR-9	
1-1001-43C	B-8	2	B	14	GA	MO	O&C	C	BT	CS	105	VR-9	
1-1001-43D	E-8	2	B	14	GA	MO	O&C	C	BT	CS	105	VR-9	
1-1001-166A	A-2	2	C	4	RV	SA	C	O	CT-2	RR			
1-1001-166B	A-10	2	C	4	RV	SA	C	O	CT-2	RR			

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
RESIDUAL HEAT REMOVAL (CONTINUED)	ISI-39	0 - 07/18/79	4 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-1001-29A	A-5	1	A	16	GA	MO	C	O	AT BT	RR OP	25		
1-1001-29B	A-7	1	A	16	GA	MO	C	O	AT BT	RR OP	25		
1-1001-47	C-5	1	A	20	GA	MO	O&C	C	AT BT	RR CS	40	VR-9	GROUP 2 ISOLATION
1-1001-50	B-5	1	A	20	GA	MO	O&C	C	AT BT	RR CS	40	VR-9	GROUP 2 ISOLATION
1-1001-60	A-7	1	A	4	GA	MO	O&C	C	AT BT	RR CS	25	VR-9	GROUP 2 ISOLATION
1-1001-63	A-6	1	A	4	GA	MO	O&C	C	AT BT	RR CS	25	VR-9	GROUP 2 ISOLATION
1-1001-68A	A-5	1	C	16	GK	SA	C	O	PIT CT-1	RR CS		VR-7	
1-1001-68B	A-6	1	C	16	GK	SA	C	O	PIT CT-1	RR CS		VR-7	
1-1001-16A	D-2	2	B	18	GL	MO	O&C	O	BT	OP	125		
1-1001-16B	D-10	2	B	18	GL	MO	O&C	O	BT	OP	125		
1-1001-18A	B-4	2	B	3	GA	MO	O	C	BT	OP		VR-8	
1-1001-18B	B-7	2	B	3	GA	MO	O	C	BT	OP		VR-8	
1-1001-19A	D-2	2	BP	18	GA	MO	O		NA				
1-1001-19B	D-9	2	BP	18	GA	MO	O		NA				

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
RESIDUAL HEAT REMOVAL (CONTINUED)	ISI-39	0 - 07/18/79	5 of 22

5851175

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-1001-20	C-8	2	A	3	GA	MO	O&C	C	AT BT	RR OP	25		GROUP 2 ISOLATION
1-1001-21	C-8	2	A	3	GA	MO	O&C	C	AT BT	RR OP	25		GROUP 2 ISOLATION
1-1001-22A	A-2	2	C	1	RV	SA	C	O	CT-2	RR			
1-1001-22B	A-9	2	C	1	RV	SA	C	O	CT-2	RR			
1-1001-23A	A-5	2	A	10	GA	MO	C	C	AT BT	RR OP	15		
1-1001-23B	A-6	2	A	10	GA	MO	C	C	AT BT	RR OP	15		
1-1001-26A	A-5	2	A	10	CA	MO	C	C	AT BT	OP	15		
1-1001-26B	A-6	2	A	10	GA	MO	C	C	AT BT	OP	15		
1-1001-28A	A-4	2	BP	16	GL	MO	O		NA				
1-1001-28B	A-9	2	BP	16	GL	MO	O		NA				
1-1001-36A	B-2	2	A	14	GL	MO	C	O&C	AT BT	RR OP	60		
1-1001-36B	B-8	2	A	14	GL	MO	C	O&C	AT BT	RR OP	60		
1-1001-37A	B-3	2	A	6	GL	MO	C	O&C	AT BT	RR OP	60		
1-1001-37B	B-7	2	A	6	GL	MO	C	O&C	AT BT	RR OP	60		

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM: RESIDUAL HEAT REMOVAL (CONTINUED) | P & ID: ISI-39 | REVISION - DATE: 0 - 07/18/79 | PAGE: 6 of 22

8851176

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-1001-34A	A-2	2	A	16	GA	MO	C	O&C	AT BT	RR OP	125		
1-1001-34B	B-7	2	A	16	GA	MO	C	O&C	AT BT	RR OP	125		
1-1001-2A	F-3	3	C	12	CK	SA	C	O	CT-1	OP			
1-1001-2B	F-3	3	C	12	CK	SA	C	O	CT-1	OP			
1-1001-2C	F-7	3	C	12	CK	SA	C	O	CT-1	OP			
1-1001-2D	F-7	3	C	12	CK	SA	C	O	CT-1	OP			
1-1001-4A	E-3	3	BP	16	GA	MO	O		NA				
1-1001-4B	E-7	3	BP	16	GA	MO	O		NA				
1-1001-5A	E-3	3	B	12	GL	MO	C	O&C	BT	OP	90		
1-1001-5B	E-7	3	B	12	GL	MO	C	O&C	BT	OP	90		
1-1001-185A	D-3	3	BP	12	GA	MO	O		NA				
1-1001-185B	E-7	3	BP	12	GA	MO	O		NA				
1-1001-186A	D-3	3	BP	12	GA	MO	C		NA				
1-1001-186B	E-9	3	BP	12	GA	MO	C		NA				
1-1001-187A	E-3	3	BP	12	GA	MO	C		NA				
1-1001-187B	E-8	3	BP	12	GA	MO	C		NA				

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
STANDBY LIQUID CONTROL	ISI-40	0 - 07/18/79	7 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-1101-15	C-3	1	C	1.5	CK	SA	C	O	CT-1	RR		VR-10	
1-1101-16	C-3	1	C	1.5	CK	SA	C	O	CT-1	RR		VR-10	
1-1106A	C-4	2	D	1.5		EXP	C	O	DT	RR			
1-1106B	D-4	2	D	1.5		EXP	C	O	DT	RR			
1-1101-43A	D-6	2	C	1.5	CK	SA	C	O	CT-1	OP			
1-1101-43B	E-5	2	C	1.5	CK	SA	C	O	CT-1	OP			
1-1105A	C-6	2	C	1.5	RV	SA	C	O	CT-2	RR			
1-1105B	D-5	2	C	1.5	RV	SA	C	O	CT-2	RR			

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Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
RX WATER CLEAN-UP	ISI-47	0 - 07/18/79	8 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-1201-2	B-6	1	A	6	GA	MO	O	C	AT BT PIT	RR RR RR	30	VR-14	GROUP 3 ISOLATION
1-1201-5	C-6	1	A	6	GA	MO	O	C	AT BT	RR RR	30	VR-14	GROUP 3 ISOLATION

585178

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
REACTOR CORE ISOLATION COOLING	ISI-50	0 - 07/18/79	9 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-1301-16	B-2	1	A	3	GA	MO	O	C	AT BT PIT	RR CS RR	25	VR-15	GROUP 5 ISOLATION
1-1301-17	B-3	1	A	3	GA	MO	O	C	AT BT	RR CS	25	VR-15	GROUP 5 ISOLATION
1-1301-40	D-2	NC	AC	8	CK	SA	C	C	AT CT-1	RR RR		VR-13	
1-1301-41	D-2	NC	AC	2	CK	SA	C	C	AT CT-1	RR RR		VR-13	

5851179

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
CORE SPRAY	ISI-36	0 - 07/18/79	10 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-1402-9A	C-3	1	C	10	CK	SA	C	O	CT-1 PIT	CS RR		VR-7	
1-1402-9B	C-4	1	C	10	CK	SA	C	O	CT-1 PIT	CS RR		VR-7	
1-1402-25A	C-2	1	B	10	GA	MO	C	O	BT	OP	15		
1-1402-25B	C-5	1	B	10	GA	MO	C	O	BT	OP	15		
1-1402-24A	B-2	2	BP	10	GA	MO	O		NA				
1-1402-24B	B-5	2	BP	10	GA	MO	O		NA				
1-1402-28A	C-9	2	C	2	RV	SA	C	O	CT-2	RR			
1-1402-28B	D-6	2	C	2	RV	SA	C	O	CT-2	RR			
1-1402-3A	F-7	2	BP	2	GA	MO	O		NA				
1-1402-3B	F-5	2	BP	2	GA	MO	O		NA				
1-1402-38A	C-8	2	B	1.5	GA	MO	O	C	BT	OP		VR-8	
1-1402-38B	D-7	2	B	1.5	GA	MO	O	C	BT	OP		VR-8	

585180

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
PRESSURE SUPPRESSION	ISI-34	0 - 07/18/79	11 of 22

5851181

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-1601-21	C-6	NC	AP	18	BTF	AO	C		AT	RR			GROUP 2 ISOLATION
1-1601-22	C-6	NC	AP	18	BTF	AO	C		AT	RR			GROUP 2 ISOLATION
1-1601-55	A-6	NC	A	8	GA	AO	O	C	AT BT	RR OP	10		GROUP 2 ISOLATION
1-1601-56	D-6	NC	A	18	BTF	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
1-1601-57	C-9	NC	A	1	GL	MO	O	C	AT BT	RR OP	15		GROUP 2 ISOLATION
1-1601-58	D-7	NC	AP	1	GL	AO	C		AT	RR			GROUP 2 ISOLATION
1-1601-59	D-7	NC	A	1	GL	AO	O	C	AT BT FST	RR OP OP	15		GROUP 2 ISOLATION
1-1601-20A	D-9	NC	A	20	BTF	AO	C	O&C	AT BT FST	RR OP OP			
1-1601-31A	D-9	NC	AC	20	CK	SA	C	O&C	AT CT-1	RR OP			
1-1601-20B	E-9	NC	A	20	BTF	AO	C	O&C	AT BT FST	RR OP OP			
1-1601-31B	E-9	NC	AC	20	CK	SA	C	O&C	AT CT-1	RR OP			
1-1601-23	B-3	NC	AP	18	BTF	AO	C		AT	RR			GROUP 2 ISOLATION

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM: PRESSURE SUPPRESSION (CONTINUED) | P & ID: ISI-34 | REVISION - DATE: 0 - 07/18/79 | PAGE: 12 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-1601-24	B-2	NC	AP	18	BTF	AO	C		AT	RR			GROUP 2 ISOLATION
1-1601-60	B-3	NC	AP	18	BTF	AO	C		AT	RR			GROUP 2 ISOLATION
1-1601-61	B-2	NC	AP	2	GL	AO	C		AT	RR			GROUP 2 ISOLATION
1-1601-62	E-2	NC	AP	2	GL	AO	C		AT	RR			GROUP 2 ISOLATION
1-1601-63	E-2	NC	AP	6	BTF	AO	C		AT	RR			GROUP 2 ISOLATION
1-8803	C-6	NC	A	2	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
1-8804	D-6	NC	A	2	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
1-8801A	C-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
1-8801B	D-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
1-8801C	D-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
1-8801D	E-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP CP	10		GROUP 2 ISOLATION
1-8802A	C-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION

8951182

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
PRESSURE SUPPRESSION (CONTINUED)	ISI-34	0 - 07/18/79	13 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-8802B	D-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
1-8802C	D-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
1-8802D	E-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION

585183

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
HIGH PRESSURE COOLANT INJECTION	ISI-46	0 - 07/18/79	14 of 22

585184

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-2301-4	C-9	1	A	10	GA	MO	O	O&C	AT BT PIT	RR CS RR	50	VR-15	GROUP 4 ISOLATION
1-2301-5	B-10	1	A	10	GA	MO	O	O&C	AT BT	RR CS	50	VR-15	GROUP 4 ISOLATION
1-2301-3	A-6	2	B	10	GA	MO	C	O	BT	OP			
1-2301-68	A-6	2	D	16	RPD	SA	C	O	*				* RPD NOT TESTABLE
1-2301-69	A-6	2	D	16	RPD	SA	C	O	*				" "
1-2301-29	B-9	2	B	1	GL	AO	O	C	BT FST	OP OP			
1-2301-34	D-7	2	AC	2	CK	SA	C	O&C	AT CT-1	RR RR		VR-13	
1-2301-45	B-8	2	AC	24	CK	SA	C	O&C	AT CT-1	RR RR		VR-13	
1-2301-35	E-7	2	B	16	GA	MO	C	O&C	BT	OP	120		
1-2301-36	E-9	2	B	16	GA	MO	C	O&C	BT	OP	120		
1-2301-6	F-2	2	B	16	GA	MO	O	O&C	BT	OP	120		
1-2301-20	E-2	2	C	16	CK	SA	O	O	CT-1	OP			
1-2301-14	C-6	2	B	4	GL	MO	C	O&C	BT	OP		VR-8	
1-2301-39	E-8	2	C	16	CK	SA	C	O	CT-1			VR-12	
1-2301-9	D-5	2	BP	14	GA	MO	O		NA				
1-2301-10	E-5	2	B	12	GL	MO	C	C	BT	OP			

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
HIGH PRESSURE COOLANT INJECTION (CONTINUED)	ISI-46	0 - 07/18/79	15 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-2301-8	D-6	2	B	14	GA	MO	C	O	BT	OP			
1-2301-7	D-6	2	C	14	CK	SA	C	O	PIT CT-1	RR CS		VR-7	

585185

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
MAIN STEAM	ISI-13 Sh. 1	0 - 07/18/79	16 of 22

5851186

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-203-1A	F-4	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
1-203-1B	D-4	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
1-203-1C	C-4	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
1-203-1D	B-4	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
1-220-1	E-4	1	A	3	GA	MO	C	C	AT BT	RR OP	35		GROUP 1 ISOLATION
1-203-3A	F-4	1	BC	6	ERV/SV	PS/SA	C	O	BT CT-2	* RR	*	VR-2 VR-3	* SEE VR-2
1-203-3B	D-6	1	BC	6	ERV	PS	C	O	BT CT-2	* RR	*	VR-2 VR-3	"
1-203-3C	C-7	1	BC	6	ERV	PS	C	O	BT CT-2	* RR	*	VR-2 VR-3	"

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
MAIN STEAM (CONTINUED)	ISI-13 Sh. 1	0 - 07/18/79	17 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-203-3D	B-7	1	BC	6	ERV	PS	C	O	BT CT-2	* RR	*	VR-2 VR-3	* SEE VR-2
1-203-3E	D-7	1	BC	6	ERV	PS	C	O	BT CT-2	* RR	*	VR-2 VR-3	"
1-203-4A	F-8	1	C	6	SV	SA	C	O	CT-2	RR			
1-203-4B	D-5	1	C	6	SV	SA	C	O	CT-2	RR			
1-203-4C	C-5	1	C	6	SV	SA	C	O	CT-2	RR			
1-203-4D	B-5	1	C	6	SV	SA	C	O	CT-2	RR			
1-203-4E	F-8	1	C	6	SV	SA	C	O	CT-2	RR			
1-203-4F	D-5	1	C	6	SV	SA	C	O	CT-2	RR			
1-203-4G	C-5	1	C	6	SV	SA	C	O	CT-2	RR			
1-203-4H	B-5	1	C	6	SV	SA	C	O	CT-2	RR			

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
MAIN STEAM	ISI-13 Sh. 2	0 - 07/18/79	18 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-203-2A	E-7	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
1-203-2B	E-7		A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
1-203-2C	D-7		A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
1-203-2D	B-7	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
1-220-2	E-7	1	A	3	GA	MO	C	C	AT BT	RR OP	35		GROUP 1 ISOLATION

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
FEEDWATER	ISI-15	0 - 07/18/79	19 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-220-58A	E-3	1	AC	18	CK	SA	O	C	AT CT-1	RR RR		VR-4	
1-220-58B	F-3	1	AC	18	CK	SA	O	O&C	AT CT-1	RR RR		VR-4	
1-220-59B	F-3	2	C	18	CK	SA	O	C	CT-1	RR		VR-4	
1-220-62A	E-3	1	AC	18	CK	SA	O	C	AT CT-1	RR		VR-4	
1-220-62B	F-3	1	AC	18	CK	SA	O	O&C	AT CT-1	RR RR		VR-4	

585189

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
SERVICE WATER	ISI-22	0 - 07/18/79	20 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-3999-85	A-10	3	C	8	CK	SA	C	O	CT-1	OP			
1-3999-86	B-9	3	C	8	CK	SA	C	O	CT-1	OP			
1-3999-88	B-10	3	C	8	CK	SA	C	O	CT-1	OP			

585190

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
INSTRUMENT AIR PIPING	ISI-24 Sh. 2	0 - 07/18/79	21 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-4720	D-3	NC	A	1	GA	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
1-4721	D-3	NC	A	1	GA	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
1-733-1		NC	AP	0.375	BALL	SO	C		AT	RR			GROUP 2 ISOLATION
1-733-2		NC	AP	0.375	BALL	SO	C		AT	RR			GROUP 2 ISOLATION
1-733-3		NC	AP	0.375	BALL	SO	C		AT	RR			GROUP 2 ISOLATION
1-733-4		NC	AP	0.375	BALL	SO	C		AT	RR			GROUP 2 ISOLATION
1-733-5		NC	AP	0.375	BALL	SO	C		AT	RR			GROUP 2 ISOLATION
1-743	B-7	NC	AC	0.375	CK	SA	O	C	AT CT-1	RR RR		VR-5	
1-736-1		NC	D	0.375		EXP	O	C	DT	RR			
1-736-2		NC	D	0.375		EXP	O	C	DT	RR			
1-736-3		NC	D	0.375		EXP	O	C	DT	RR			
1-736-4		NC	D	0.375		EXP	O	C	DT	RR			
1-736-5		NC	D	0.375		EXP	O	C	DT	RR			

585191

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 1

SYSTEM	P & ID	REVISION - DATE	PAGE
RX BUILDING EQUIPMENT DRAINS	ISI-43	0 - 07/18/79	22 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
1-2001-15	E-3	NC	A	3	GA	AO	C	C	AT BT FST	RR OP OP	20		GROUP 2 ISOLATION
1-2001-16	E-3	NC	A	3	GA	AO	C	C	AT BT FST	RR OP OP	20		GROUP 2 ISOLATION
1-2001-3	F-7	NC	A	3	GA	AO	C	C	AT BT FST	RR OP OP	20		GROUP 2 ISOLATION
1-2001-4	F-7	NC	A	3	GA	AO	C	C	AT BT FST	RR OP OP	20		GROUP 2 ISOLATION

585192

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
RECIRCULATION	ISI-77 Sh. 2	0 - 07/18/79	1 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-202-5A	D-6	1	B	28	GA	MO	O	C	BT PIT	CS RR	45	VR-6	
2-202-5B	D-3	1	B	28	GA	MO	O	C	BT PIT	CS	45	VR-6	
2-202-6A	B-5	1	BP	22	GA	MO	C		NA				
2-202-6B	C-4	1	BP	22	GA	MO	C		NA				
2-202-9A	B-5	1	BP	2	GA	MO	O		NA				
2-202-9B	C-4	1	BP	2	GA	MO	C		NA				
2-220-44	E-3	1	A	0.75	GL	AO	O	C	AT BT PIT FST	RR OP RR OP	5		GROUP 1 ISOLATION
2-220-45	E-3	1	A	0.75	GL	AO	O	C	AT BT FST	RR OP OP	5		GROUP 1 ISOLATION

585193

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
CONTROL ROD DRIVE	ISI-83	0 - 07/18/78	2 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
(177) 2-0305-127	D-9	1	B	0.75	GA	AO	C	O	BT	*		VR-11	* SCRAM TESTING
(177) 2-0305-126	D-10	1	B	1.0	GA	AO	C	O	BT	*		VR-11	" "
(177) 2-0305-114	E-9	2	C	0.75	CK	SA	C	O	CT-1	*		VR-11	" "
2-0302-21A	F-2	2	B	1.0	GL	AO	O	C	BT FST	OP OP			
2-0302-21B	F-7	2	B	1.0	GL	AO	O	C	BT FST	OP OP			
2-0302-22	F-3	2	B	2.0	GL	AO	O	C	BT FST	OP OP			
2-0301-23	F-3	2	C	0.75	RV	SA	C	O	CT-2	RR			

585194

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
RESIDUAL HEAT REMOVAL	ISI-79	0 - 07/18/79	3 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-1001-7A	B-6	2	BP	14	GA	MO	O		NA				
2-1001-7B	E-6	2	BP	14	GA	MO	O		NA				
2-1001-7C	B-6	2	BP	14	GA	MO	O		NA				
2-1001-7D	E-6	2	BP	14	GA	MO	O		NA				
2-1001-67A	B-3	2	C	12	CK	SA	C	O	CT-1	OP			
2-1001-67B	E-3	2	C	12	CK	SA	C	O	CT-1	OP			
2-1001-67C	B-9	2	C	12	CK	SA	C	O	CT-1	OP			
2-1001-67D	E-9	2	C	12	CK	SA	C	O	CT-1	OP			
2-1001-125A	B-5	2	C	1	RV	SA	C	O	CT-2	RR			
2-1001-125B	E-5	2	C	1	RV	SA	C	O	CT-2	RR			
2-1001-125C	B-7	2	C	1	RV	SA	C	O	CT-2	RR			
2-1001-125D	E-7	2	C	1	RV	SA	C	O	CT-2	RR			
2-1001-43A	B-4	2	B	14	GA	MO	O&C	C	BT	CS	105	VR-9	
2-1001-43B	E-4	2	B	14	GA	MO	O&C	C	BT	CS	105	VR-9	
2-1001-43C	B-8	2	B	14	GA	MO	O&C	C	BT	CS	105	VR-9	
2-1001-43D	E-8	2	B	14	GA	MO	O&C	C	BT	CS	105	VR-9	
2-1001-166A	A-2	2	C	4	RV	SA	C	O	CT-2	RR			
2-1001-166B	A-10	2	C	4	RV	SA	C	O	CT-2	RR			

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
RESIDUAL HEAT REMOVAL (CONTINUED)	ISI-81	0 - 07/18/79	4 of 22

5851:96

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-1001-29A	A-5	1	A	16	GA	MO	C	O	AT BT	RR OP	25		
2-1001-29B	A-7	1	A	16	GA	MO	C	O	AT BT	RR OP	25		
2-1001-47	C-5	1	A	20	GA	MO	O&C	C	AT BT	RR CS	40	VR-9	GROUP 2 ISOLATION
2-1001-50	B-5	1	A	20	GA	MO	O&C	C	AT BT	RR CS	40	VR-9	GROUP 2 ISOLATION
2-1001-60	A-7	1	A	4	GA	MO	O&C	C	AT BT	RR CS	25	VR-9	GROUP 2 ISOLATION
2-1001-63	A-6	1	A	4	GA	MO	O&C	C	AT BT	RR CS	25	VR-9	GROUP 2 ISOLATION
2-1001-68A	A-5	1	C	16	GK	SA	C	O	PIT CT-1	RR CS		VR-7	
2-1001-68B	A-6	1	C	16	GK	SA	C	O	PIT CT-1	RR CS		VR-7	
2-1001-16A	D-2	2	B	18	GL	MO	O&C	O	BT	OP	125		
2-1001-16B	D-10	2	B	18	GL	MO	O&C	O	BT	OP	125		
2-1001-18A	B-4	2	B	3	GA	MO	O	C	BT	OP		VR-8	
2-1001-18B	B-7	2	B	3	GA	MO	O	C	BT	OP		VR-8	
2-1001-19A	D-2	2	BP	18	GA	MO	O		NA				
2-1001-19B	D-9	2	BP	18	GA	MO	O		NA				

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
RESIDUAL HEAT REMOVAL (CONTINUED)	ISI-81	0 - 07/18/79	5 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-1001-20	C-8	2	A	3	GA	MO	O&C	C	AT BT	RR OP	25		GROUP 2 ISOLATION
2-1001-21	C-8	2	A	3	GA	MO	O&C	C	AT BT	RR OP	25		GROUP 2 ISOLATION
2-1001-22A	A-2	2	C	1	RV	SA	C	O	CT-2	RR			
2-1001-22B	A-9	2	C	1	RV	SA	C	O	CT-2	RR			
2-1001-23A	A-5	2	A	10	GA	MO	C	C	AT BT	RR OP	15		
2-1001-23B	A-6	2	A	10	GA	MO	C	C	AT BT	RR OP	15		
2-1001-26A	A-5	2	A	10	GA	MO	C	C	AT BT	OP	15		
2-1001-26B	A-6	2	A	10	GA	MO	C	C	AT BT	OP	15		
2-1001-28A	A-4	2	BP	16	GL	MO	O		NA				
2-1001-28B	A-9	2	BP	16	GL	MO	O		NA				
2-1001-36A	B-2	2	A	14	GL	MO	C	O&C	AT BT	RR OP	60		
2-1001-36B	B-8	2	A	14	GL	MO	C	O&C	AT BT	RR OP	60		
2-1001-37A	B-3	2	A	6	GL	MO	C	O&C	AT BT	RR OP	60		
2-1001-37B	B-7	2	A	6	GL	MO	C	O&C	AT BT	RR OP	60		

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
RESIDUAL HEAT REMOVAL (CONTINUED)	ISI-81	0 - 07/18/79	6 of 22

585198

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-1001-34A	A-2	2	A	16	GA	MO	C	O&C	AT BT	RR OP	125		
2-1001-34B	B-7	2	A	16	GA	MO	C	O&C	AT BT	RR OP	125		
2-1001-2A	F-3	3	C	12	CK	SA	C	O	CT-1	OP			
2-1001-2B	F-3	3	C	12	CK	SA	C	O	CT-1	OP			
2-1001-2C	F-7	3	C	12	CK	SA	C	O	CT-1	OP			
2-1001-2D	F-7	3	C	12	CK	SA	C	O	CT-1	OP			
2-1001-4A	E-3	3	BP	16	GA	MO	O		NA				
2-1001-4B	E-7	3	BP	16	GA	MO	O		NA				
2-1001-5A	E-3	3	B	12	GL	MO	C	O&C	BT	OP	90		
2-1001-5B	E-7	3	B	12	GL	MO	C	O&C	BT	OP	90		
2-1001-185A	D-3	3	BP	12	GA	MO	O		NA				
2-1001-185B	E-7	3	BP	12	GA	MO	O		NA				
2-1001-186A	D-3	3	BP	12	GA	MO	C		NA				
2-1001-186B	E-9	3	BP	12	GA	MO	C		NA				
2-1001-187A	E-3	3	BP	12	GA	MO	C		NA				
2-1001-187B	E-8	3	BP	12	GA	MO	C		NA				

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
STANDBY LIQUID CONTROL	ISI-82	0 - 07/18/79	7 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-1101-15	C-3	1	C	1.5	CK	SA	C	O	CT-1	RR		VR-10	
2-1101-16	C-3	1	C	1.5	CK	SA	C	O	CT-1	RR		VR-10	
2-1106A	C-4	2	D	1.5		EXP	C	O	DT	RR			
2-1106B	D-4	2	D	1.5		EXP	C	O	DT	RR			
2-1101-43A	D-6	2	C	1.5	CK	SA	C	O	CT-1	OP			
2-1101-43B	E-5	2	C	1.5	CK	SA	C	O	CT-1	OP			
2-1105A	C-6	2	C	1.5	RV	SA	C	O	CT-2	RR			
2-1105B	D-5	2	C	1.5	RV	SA	C	O	CT-2	RR			

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
RX WATER CLEAN-UP	ISI-88	0 - 07/18/79	8 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-1201-2	B-6	1	A	6	GA	MO	O	C	AT BT PIT	RR RR RR	30	VR-14	GROUP 3 ISOLATION
2-1201-5	C-6	1	A	6	GA	MO	O	C	AT BT	RR RR	30	VR-14	GROUP 3 ISOLATION

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Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
REACTOR CORE ISOLATION COOLING	ISI-89	0 - 07/18/79	9 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-1301-16	B-2	1	A	3	GA	MO	O	C	AT BT PIT	RR CS RR	25	VR-15	GROUP 5 ISOLATION
2-1301-17	B-3	1	A	3	GA	MO	O	C	AT BT	RR CS	25	VR-15	GROUP 5 ISOLATION
2-1301-40	D-2	NC	AC	8	CK	SA	C	C	AT CT-1	RR RR		VR-13	
2-1301-41	D-2	NC	AC	2	CK	SA	C	C	AT CT-1	RR RR		VR-13	

595261

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
CORE SPRAY	ISI-78	0 - 07/18/79	10 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-1402-9A	C-3	1	C	10	CK	SA	C	O	CT-1 PIT	CS RR		VR-7	
2-1402-9B	C-4	1	C	10	CK	SA	C	O	CT-1 PIT	CS RR		VR-7	
2-1402-25A	C-2	1	B	10	GA	MO	C	O	BT	OP	15		
2-1402-25B	C-5	1	B	10	GA	MO	C	O	BT	OP	15		
2-1402-24A	B-2	2	BP	10	GA	MO	O		NA				
2-1402-24B	B-5	2	BP	10	GA	MO	O		NA				
2-1402-28A	C-9	2	C	2	RV	SA	C	O	CT-2	RR			
2-1402-28B	D-6	2	C	2	RV	SA	C	O	CT-2	RR			
2-1402-3A	F-7	2	BP	2	GA	MO	O		NA				
2-1402-3B	F-5	2	BP	2	GA	MO	O		NA				
2-1402-38A	C-8	2	B	1.5	GA	MO	O	C	BT	OP		VR-8	
2-1402-38B	D-7	2	B	1.5	GA	MO	O	C	BT	OP		VR-8	

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
PRESSURE SUPPRESSION	ISI-76	0 - 07/18/79	11 of 22

5852C3

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-1601-21	C-6	NC	AP	18	BTF	AO	C		AT	RR			GROUP 2 ISOLATION
2-1601-22	C-6	NC	AP	18	BTF	AO	C		AT	RR			GROUP 2 ISOLATION
2-1601-55	A-6	NC	A	8	GA	AO	O	C	AT BT	RR OP	10		GROUP 2 ISOLATION
2-1601-56	D-6	NC	A	18	BTF	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
2-1601-57	C-9	NC	A	1	GL	MO	O	C	AT BT	RR OP	15		GROUP 2 ISOLATION
2-1601-58	D-7	NC	AP	1	GL	AO	C		AT	RR			GROUP 2 ISOLATION
2-1601-59	D-7	NC	A	1	GL	AO	O	C	AT BT FST	RR OP OP	15		GROUP 2 ISOLATION
2-1601-20A	D-9	NC	A	20	BTF	AO	C	O&C	AT BT FST	RR OP OP			
2-1601-31A	D-9	NC	AC	20	CK	SA	C	O&C	AT CT-1	RR OP			
2-1601-20B	E-9	NC	A	20	BTF	AO	C	O&C	AT BT FST	RR OP OP			
2-1601-31B	E-9	NC	AC	20	CK	SA	C	O&C	AT CT-1	RR OP			
2-1601-23	B-3	NC	AP	18	BTF	AO	C		AT	RR			GROUP 2 ISOLATION

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
PRESSURE SUPPRESSION (CONTINUED)	ISI-76	0 - 07/18/79	12 of 22

585204

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-1601-24	B-2	NC	AP	18	BTF	AO	C		AT	RR			GROUP 2 ISOLATION
2-1601-60	B-3	NC	AP	18	BTF	AO	C		AT	RR			GROUP 2 ISOLATION
2-1601-61	B-2	NC	AP	2	GL	AO	C		AT	RR			GROUP 2 ISOLATION
2-1601-62	E-2	NC	AP	2	GL	AO	C		AT	RR			GROUP 2 ISOLATION
2-1601-63	E-2	NC	AP	6	BTF	AO	C		AT	RR			GROUP 2 ISOLATION
2-8803	C-6	NC	A	2	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
2-8804	D-6	NC	A	2	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
2-8801A	C-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
2-8801B	D-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
2-8801C	D-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
2-8801D	E-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
2-8802A	C-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
PRESSURE SUPPRESSION (CONTINUED)	ISI-76	0 - 07/18/79	13 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-8802B	D-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
2-8802C	D-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
2-8802D	E-3	NC	A	0.5	GL	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
HIGH PRESSURE COOLANT INJECTION	ISI-87	0 - 07/18/79	14 of 22

585206

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-2301-4	C-9	1	A	10	GA	MO	O	O&C	AT BT PIT	RR CS RR	50	VR-15	GROUP 4 ISOLATION
2-2301-5	B-10	1	A	10	GA	MO	O	O&C	AT BT	RR CS	50	VR-15	GROUP 4 ISOLATION
2-2301-3	A-6	2	B	10	GA	MO	C	O	BT	OP			
2-2301-68	A-6	2	D	16	RPD	SA	C	O	*				* RPD NOT TESTABLE
2-2301-69	A-6	2	D	16	RPD	SA	C	O	*				" "
2-2301-29	B-9	2	B	1	GL	AO	O	C	BT FST	OP OP			
2-2301-34	D-7	2	AC	2	CK	SA	C	O&C	AT CT-1	RR RR		VR-13	
2-2301-45	F-8	2	AC	24	CK	SA	C	O&C	AT CT-1	RR RR		VR-13	
2-2301-35	E-7	2	B	16	GA	MO	C	O&C	BT	OP	120		
2-2301-36	E-9	2	B	16	GA	MO	C	O&C	BT	OP	120		
2-2301-6	F-2	2	B	16	GA	MO	O	O&C	BT	OP	120		
2-2301-20	E-2	2	C	16	CK	SA	O	O	CT-1	OP			
2-2301-14	C-6	2	B	4	GL	MO	C	O&C	BT	OP		VR-8	
2-2301-39	E-8	2	C	16	CK	SA	C	O	CT-1			VR-12	
2-2301-9	D-5	2	BP	14	GA	MO	O		NA				
2-2301-10	E-5	2	B	12	GL	MO	C	C	BT	OP			

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
HIGH PRESSURE COOLANT INJECTION (CONTINUED)	ISI-87	0 - 07/18/79	15 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-2301-8	D-6	2	B	14	GA	MO	C	O	BT	OP			
2-2301-7	D-6	2	C	14	CK	SA	C	O	PIT CT-1	RR CS		VR-7	

585207

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
MAIN STEAM	ISI-60 Sh. 1	0 - 07/18/79	16 of 22

585208

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-203-1A	F-4	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
2-203-1B	D-4	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
2-203-1C	C-4	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
2-203-1D	B-4	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
2-220-1	E-4	1	A	3	GA	MO	C	C	AT BT	RR OP	35		GROUP 1 ISOLATION
2-203-3A	F-4	1	BC	6	ERV/SV	PS/SA	C	O	BT CT-2	* RR	*	VR-2 VR-3	* SEE VR-2
2-203-3B	D-6	1	BC	6	ERV	PS	C	O	BT CT-2	* RR	*	VR-2 VR-3	"
2-203-3C	C-7	1	BC	6	ERV	PS	C	O	BT CT-2	* RR	*	VR-2 VR-3	"

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
MAIN STEAM (CONTINUED)	ISI-60 Sh. 1	0 - 07/18/79	17 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-203-3D	B-7	1	BC	6	ERV	PS	C	O	BT CT-2	* RR	*	VR-2 VR-3	* SEE VR-2
2-203-3E	D-7	1	BC	6	ERV	PS	C	O	BT CT-2	* RR	*	VR-2 VR-3	"
2-203-4A	F-8	1	C	6	SV	SA	C	O	CT-2	RR			
2-203-4B	D-5	1	C	6	SV	SA	C	O	CT-2	RR			
2-203-4C	C-5	1	C	6	SV	SA	C	O	CT-2	RR			
2-203-4D	B-5	1	C	6	SV	SA	C	O	CT-2	RR			
2-203-4E	F-8	1	C	6	SV	SA	C	O	CT-2	RR			
2-203-4F	D-5	1	C	6	SV	SA	C	O	CT-2	RR			
2-203-4G	C-5	1	C	6	SV	SA	C	O	CT-2	RR			
2-203-4H	B-5	1	C	6	SV	SA	C	O	CT-2	RR			

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
MAIN STEAM	ISI-60 Sh. 2	0 - 07/18/79	18 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-203-2A	E-7	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
2-203-2B	E-7	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
2-203-2C	D-7	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
2-203-2D	B-7	1	A	20	GL	AO	O	C	AT BTP BT FST PIT	RR OP CS CS RR	5	VR-1 VR-1	GROUP 1 ISOLATION
2-220-2	E-7	1	A	3	GA	MO	C	C	AT BT	RR OP	35		GROUP 1 ISOLATION

585210

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
FEEDWATER	ISI-62	0 - 07/18/79	19 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX STROKE TIME	RELIEF REQUEST	REMARKS
2-220-58A	E-3	1	AC	18	CK	SA	O	C	AT CT-1	RR RR		VR-4	
2-220-58B	F-3	1	AC	18	CK	SA	O	O&C	AT CT-1	RR RR		VR-4	
2-220-59B	F-3	2	C	18	CK	SA	O	C	CT-1	RR		VR-4	
2-220-62A	E-3	1	AC	18	CK	SA	O	C	AT CT-1	RR		VR-4	
2-220-62B	F-3	1	AC	18	CK	SA	O	O&C	AT CT-1	RR RR		VR-4	

585211

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
SERVICE WATER	ISI-69	0 - 07/18/79	20 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-3999-86	B-9	3	C	8	CK	SA	C	O	CT-1	OP			
2-3999-88	B-10	3	C	8	CK	SA	C	O	CT-1	OP			

585212

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES
QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
INSTRUMENT AIR PIPING	ISI-71 Sh. 2	0 - 07/18/79	21 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-4720	D-3	NC	A	1	GA	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
2-4721	D-3	NC	A	1	GA	AO	O	C	AT BT FST	RR OP OP	10		GROUP 2 ISOLATION
2-733-1		NC	AP	0.375	BALL	SO	C		AT	RR			GROUP 2 ISOLATION
2-733-2		NC	AP	0.375	BALL	SO	C		AT	RR			GROUP 2 ISOLATION
2-733-3		NC	AP	0.375	BALL	SO	C		AT	RR			GROUP 2 ISOLATION
2-733-4		NC	AP	0.375	BALL	SO	C		AT	RR			GROUP 2 ISOLATION
2-733-5		NC	AP	0.375	BALL	SO	C		AT	RR			GROUP 2 ISOLATION
2-743	B-7	NC	AC	0.375	CK	SA	O	C	AT CT-1	RR RR		VR-5	
2-736-1		NC	D	0.375		EXP	O	C	DT	RR			
2-736-2		NC	D	0.375		EXP	O	C	DT	RR			
2-736-3		NC	D	0.375		EXP	O	C	DT	RR			
2-736-4		NC	D	0.375		EXP	O	C	DT	RR			
2-736-5		NC	D	0.375		EXP	O	C	DT	RR			

Commonwealth Edison

INSERVICE TESTING PROGRAM

ISI - CLASS 1, 2, & 3 VALVES

QUAD CITIES NUCLEAR POWER STATION

UNIT - 2

SYSTEM	P & ID	REVISION - DATE	PAGE
RX BUILDING EQUIPMENT DRAINS	ISI-85	0 - 07/18/79	22 of 22

VALVE NUMBER	COORDINATES	CLASS	VALVE CATEGORY	VALVE SIZE	VALVE TYPE	ACTUATOR TYPE	NORMAL POSITION	STROKE DIRECTION	TEST	TEST MODE	MAX. STROKE TIME	RELIEF REQUEST	REMARKS
2-2001-15	E-3	NC	A	3	GA	AO	C	C	AT BT FST	RR OP OP	20		GROUP 2 ISOLATION
2-2001-16	E-3	NC	A	3	GA	AO	C	C	AT BT FST	RR OP OP	20		GROUP 2 ISOLATION
2-2001-3	F-7	NC	A	3	GA	AO	C	C	AT BT FST	RR OP OP	20		GROUP 2 ISOLATION
2-2001-4	F-7	NC	A	3	GA	AO	C	C	AT BT FST	RR OP OP	20		GROUP 2 ISOLATION

SECTION 4.3

RELIEF REQUESTS FOR INSERVICE VALVE TESTING PROGRAM

585215

RELIEF REQUEST NO. VR-1

SYSTEM: Main Steam

COMPONENT: 1(2)-203-1A, B, C, D

1(2)-203-2A, B, C, D

CATEGORY: A

FUNCTION: Primary containment isolation valves for the main steam lines.

TEST REQUIREMENT: BT - Exercise and time valves every three months.

FST - Check the fail-safe operation of the valve upon loss of actuator power every three months.

BASES FOR RELIEF: Testing these valves during reactor operation would cause primary system transients that would place the reactor in an unsafe mode of operation and possibly cause a scram.

585216

RELIEF REQUEST NO. VR-1

ALTERNATE TESTING: These valves will be part stroke exercised every three months and full stroke exercised during cold shutdown. The fail-safe operation of these valves will also be checked during cold shutdown.

585217

RELIEF REQUEST NO. VR-2

SYSTEM: Main Steam

COMPONENT: 1(2)-203-3A, B, C, D, E

3A-Target Rock Safety Relief Valve

3B-D-Electromatic Relief Valves.

CATEGORY: B/C

FUNCTION: 1) Open upon receipt of an auto depressurization signal to blowdown reactor; 2) Act as a primary system relief valve which actuates on high system pressure.

TEST REQUIREMENT: BT - Exercise and time valves every three months.

BASIS FOR RELIEF: These valves cannot be exercised during normal reactor operation because a failure of any one valve to re-close would cause a rapid depressurization of the primary system resulting in undesirable thermal gradients in the reactor vessel. These valves cannot be exercised when the plant is in a cold shutdown or refueling mode since the valves

require system pressure to operate. Actual stroke times for these relief valves cannot be measured, however, their operability is satisfactorily determined by the tests performed.

ALTERNATE TESTING: To minimize the risks associated with testing these valves, they will be exercised once per operating cycle during startup or shutdown of the reactor.

RELIEF REQUEST NO. VR-3

SYSTEM: Main Steam

COMPONENT: 1(2)-203-3A (Target Rock Safety/Relief)
1(2)-203-3B,C,C,E (Electromatic Relief)

CATEGORY: BC

FUNCTION: 1) Open upon receipt of an auto depressurization signal to blow down the reactor, and 2) act as a primary system relief valve actuating on a high pressure condition. The Target Rock Safety/Relief Valve functions the same as above except, it also acts as a safety valve.

TEST REQUIREMENT: CT-2 - Verify pressure set point in accordance with IWV-3510.

BASIS FOR RELIEF: The electromatic relief valves and the relief function of the Target Rock valve are operated by actuation of a pilot solenoid valve which opens the main valve by applying system pressure to a diaphragm. The pilot valve is actuated from an electric signal from either the control switch, the auto-depressurization logic, or a pressure switch that senses system pressure.

585220

The requirement of IWV-3510(b) to check relief and safety valve set points in accordance with PTC-25.2-1966 is not applicable in this case. Therefore, relief is requested from compliance with this requirement.

The pressure set point of these valves is set by calibrating the pressure switch rather than testing the complete valve assembly. The combination of the pressure switch calibration and the exercising test for operability (BT) satisfies the intent of paragraph IWV-3510.

ALTERNATE TESTING: The pressure switch for each of these valves will be calibrated to verify the correct set point and the exercise test (BT) will verify operability of the valve.

RELIEF REQUEST NO. VR-4

SYSTEM: FEEDWATER

COMPONENT: 1(2)-220-58A, B
1(2)-220-59B
1(2)-220-62A, B

CATEGORY: C

FUNCTION: The 58 and 62 valves close for containment isolation. The 59B valve closes for HPCI injection.

TEST REQUIREMENT: CT-1 - Exercise check valve every three months.

BASIS FOR RELIEF: These check valves cannot be tested for operability during reactor operation because the feedwater system is needed to maintain primary coolant inventory. It is impractical to test these valves during cold shutdown because the reactor water clean-up and feedwater systems are generally required to be operable. To test the check valves these systems must be taken out of service and a pressure test performed to verify valve closure, since no external means of valve position indication is available.

585222

RELIEF REQUEST NO. VR-4 (Continued)

ALTERNATE TESTING: These check valves will be exercised closed during each reactor refueling outage.

RELIEF REQUEST NO. VR-5

SYSTEM: Neutron Monitoring System

COMPONENT: 1(2)-700-743

CATEGORY: C

FUNCTION: Primary containment isolation valve for the T.I.P. System nitrogen purge line.

TEST REQUIREMENT: CT-1 - Exercise valve every three months.

BASIS FOR RELIEF: This check valve cannot be exercised for operability every three months because the T.I.P. system is required to be purged constantly during operation. Since there is no external means of position indication, the system must be taken out-of-service and a pressure test performed to verify operability. For this reason and the fact that the required access to the primary containment is not always available, testing this valve during cold shutdown is also impractical.

ALTERNATE TESTING: The valves will be full stroke exercised each refueling outage.

RELIEF REQUEST NO. VR-6

SYSTEM: Recirculation

COMPONENT: 1(2)-202-5A, B

CATEGORY: B

FUNCTION: In a design basis loss of coolant accident, one of these valves will close depending on the location of the line break.

TEST REQUIREMENT: BT - Exercise and time valves for operability every three months.

BASIS FOR RELIEF: These valves cannot be fully stroke tested or partial stroke tested during normal operation since isolation of a recirculation loop would cause a recirculation pump trip. One loop operation is restricted by the Technical Specifications.

ALTERNATE TESTING: These valves will be full stroke exercised during cold shutdown.

585225

RELIEF REQUEST NO. VR-7

SYSTEM: Residual Heat Removal, High Pressure Coolant Injection, and Core Spray

COMPONENT: 1(2)-1001-68A
1(2)-1001-68B
1(2)-1402-9A
1(2)-1402-9B
1(2)-2301-7

CATEGORY: C

FUNCTION: Open upon system injection.

TEST REQUIREMENT: CT-1 - Exercise valve every three months.

BASIS FOR RELIEF: These valves have air-operators and remote position indicators for testing purposes. However, during normal operation the high differential pressure across the valve prohibits exercising.

ALTERNATE TESTING: These valves will be full stroke exercised during cold shutdown.

RELIEF REQUEST NO. VR-8

SYSTEM: Core Spray, Residual Heat Removal, and High Pressure Coolant Injection.

COMPONENT: 1(2)-1402-38 A&B
1(2)-1001-18 A&B
1(2)-2301-14

CATEGORY: B

FUNCTION: The valves close when pump flow is adequate (i.e., minimum flow recirculation valves).

TEST REQUIREMENT: Exercise and time valves every three months.

BASIS FOR RELIEF: Relief is requested from measuring the stroke time of these valves. Since the valves close automatically when adequate pump flow is reached, it is difficult to accurately measure the stroke time. An equally meaningful test would be to just verify that the valves do close automatically as the pump flow increases.

ALTERNATE TESTING: Operator will verify that these valves automatically close as pump flow increases during quarterly pump operability test.

585227

RELIEF REQUEST NO. VR-9

SYSTEM: RHR-Head Spray/Shutdown Cooling Subsystems

COMPONENT: 1(2)-1001-60, 63, 47, 50
1(2)-1001-43A,B,C,D

CATEGORY: A

FUNCTION: Primary containment isolation valves for RHR Head Spray and Shutdown Cooling Subsystems.

TEST REQUIREMENT: BT - Exercise and time valves every 3 months

BASIS FOR RELIEF: Relief is requested from partial or full stroke testing these valves during operation. These valves, which are normally closed during plant operation, serve as isolation between the high and low pressure piping. Protection interlocks prevent opening these valves while the reactor is at operating pressure.

ALTERNATE TESTING: The valves will be exercised during cold shutdown.

RELIEF REQUEST NO. VR-10

SYSTEM: Standby Liquid Control

COMPONENT: 1(2)-1101-15, 16

CATEGORY: C

FUNCTION: The safety function of these check valves is to open upon a system injection.

TEST REQUIREMENT: CT-1 - Exercise valve every three months.

BASIS FOR RELIEF: Exercising these valves by system initiation is not feasible during operation due to the requirements to maintain (a) boron to reactor water separation, and (b) requirements to maintain system operability per Technical Specifications.

Since the valve operability test, in this case, must be performed with the system out of service by injecting clean demineralize water from some external source, it is more practical in terms of system availability to perform this test during reactor refueling outages.

ALTERNATE TESTING: Exercising the valves will be accomplished at refueling outages via demineralized water injection. While this is partial flow testing, it does verify a clear pathway to the reactor vessel and that the check valves do open.

RELIEF REQUEST NO. VR-11

SYSTEM: Control Rod Drive

COMPONENT: 1(2)-0305-126, 127, 114

CATEGORY: B

FUNCTION: These valves operate on a scram signal to drive the control rods in.

TEST REQUIREMENT: BT - Exercise and time valves every 3 months.

BASIS FOR RELIEF: There are 177 of each of the valves listed, i.e., one for each of the 177 control rod drives. The proper operation of each of these valves is demonstrated during scram testing. During scram testing each drive's scram insertion time is measured. The Technical Specifications limit individual scram insertion times to specific valves. This insures that the above mentioned values are functioning properly.

ALTERNATE TESTING: Perform individual scram insertion tests per the Technical Specifications.

RELIEF REQUEST NO. VR-12

SYSTEM: High Pressure Coolant Injection

COMPONENT: 1(2)-2301-39

CATEGORY: C

FUNCTION: To open when the system suction is from suppression chamber.

TEST REQUIREMENT: CT-1 - Exercise check valve every three months.

BASIS FOR RELIEF: This valve has no external means of position indication, therefore, a flow thru test must be done to verify opening of the valve. Because of the need to maintain high purity water within the system piping, normal pump testing is done with the suction from the condensate tanks. However, only a partial flow test can be done on this valve to verify free movement of the disk from the seat. This will not verify full opening of the valve.

ALTERNATE TESTING: Verify partial flow through the valve utilizing the vents on both sides of the valve.

585232

RELIEF REQUEST NO. VR-13

SYSTEM: High Pressure Coolant Injection, Reactor Core Isolation Cooling

COMPONENT: 1(2)-2301-34, 45,
1(2)-1301-40, 41

CATEGORY: C

FUNCTION: Primary containment isolation.

TEST REQUIREMENT: CT-1 - Exercise valve for operability every three months.

BASIS FOR RELIEF: It is impractical to demonstrate closure of these check valves during normal operation or cold shutdown. To verify closure upon reversal of flow a pressure test must be performed. This requires that the systems be taken out-of-service. The safety significance of these components is minimal since leakage past these valves would be contained within the HPCI and RCIC piping which returns to the containment.

585233

RELIEF REQUEST NO. VR-13 (CONTINUED)

ALTERNATE TESTING: These valves will be demonstrated to close upon reversal of flow during each refueling outage per Appendix J test.

RELIEF REQUEST NO. VR-14

SYSTEM: Reactor Water Clean-up

COMPONENT: 1(2)-1201-2, 5.

CATEGORY: A

FUNCTION: Primary Containment Isolation

TEST REQUIREMENT: BT - Exercise and time every three months.

BASIS FOR RELIEF: The reactor water clean-up system functions continuously during the conditions of startup, operation and shutdown to maintain reactor water chemistry. Valve testing during operation or cold shutdown is impractical for the station due to the importance of reactor water chemistry control during these periods.

ALTERNATE TESTING: These valves will be full stoke exercised each refueling outage.

585235

RELIEF REQUEST NO. VR-15

SYSTEM: High Pressure Coolant Injection, Reactor Core Isolation Cooling.

COMPONENT: 1(2)-2301-4&5 and 1(2)-1301-16&17.

CATEGORY: A

FUNCTION: Primary containment isolation.

TEST REQUIREMENTS: BT-Exercise valve for operability every three months.

BASIS FOR RELIEF: The above valves are normally open to supply steam to the turbine driven HPCI and RCIC injection pumps. Conservatively these valves are left in the open position to insure that driving steam can be supplied to these turbines at all times during operation. Also, these valves serve a primary containment isolation function (Groups 4 and 5).

Quad Cities Station feels that to close these valves during operation would place the operation of the two systems in an untenable condition. Exercising these valves to the closed position can be reasonably checked during cold shutdown with little impact upon the safe operation of the plant.

RELIEF REQUEST NO. VR-15 (CONTINUED)

ALTERNATIVE TEST: These valves will be full stroke exercised during cold shutdowns.

585237

RELIEF REQUEST NO. VR-16

SYSTEM: All Systems

COMPONENT: All primary containment isolation valves (listed in program as Category A or AP).

CATEGORY: A

FUNCTION: Primary containment isolation.

TEST REQUIREMENT: AT - seat leakage tests per IWV-3420.

BASIS FOR RELIEF: Primary containment isolation valves whose functional differential pressure does not exceed the primary containment accident pressure will be seat leak tested in accordance with the Appendix J requirements of 10CFR50. At this functional differential pressure Section XI testing requirements are essentially equivalent to those of Appendix J. No additional information concerning valve leakage would be gained by performing separate tests to both Section XI and Appendix J.

ALTERNATE TESTING: Valves will be seat leak tested in accordance with 10CFR50 Appendix J.

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RELIEF REQUEST NO. VR-17

Specific relief is requested from requirements of paragraphs IWV-3410(g) and IWV-3520(c) of Section XI of the 1974 Edition of the ASME Boiler and Pressure Vessel Code including the Addenda through Summer 1975. These paragraphs state the corrective actions to be taken when valves fail to exhibit a required change of disk position. These actions include requirements to take corrective action prior to plant startup should a failure occur during cold shutdown testing. Also stated are requirements to declare valves inoperable if corrective is unsuccessful within a 24 hour period.

These paragraphs do not take into account the plant Technical Specification requirements for limiting conditions for operation which state the minimum conditions necessary for safe operation of the plant. The failure of a particular valve may not necessarily require a plant shutdown or prevent a startup. In addition, valves not capable of performing their safety-related function are declared inoperable as soon as that condition has been verified, not after a 24 hour period has elapsed.

For these reasons, Quad Cities Station will evaluate the condition of each valve with respect to its safety related function and take the appropriate corrective action as stated in the Technical Specification-Limiting Condition for Operations.

RELIEF REQUEST NO. VR-18

The Inservice Testing Program for Class 1, 2 and 3 valves has been developed in accordance with the rules set forth in Subsection IWV of Section XI of the ASME Code, 1974 Edition including the Summer 1975 Addenda. However, there have been revisions published in later Editions and Addenda that clarify the intent of these rules and make them more practical to implement. Specifically, the active and passive valve concept was adopted so that valves not requiring to change position to accomplish a specific function were not required to be exercised. Also, the requirements of earlier Addenda regarding Category E valves; i.e. those valves which are normally locked open or locked closed to perform their function, were deleted from the more recent Addenda because it is not the intent of Section XI (Subsection IWV) to establish rules for valves which require no inservice testing. Further more, valve positioning is clearly an administrative function controlled by individual plant procedures.

Permission is requested to incorporate the above mentioned revisions to Subsection IWV into the Quad Cities Station, Inservice Testing Program.

Even though the later Addenda of the Code which incorporates these changes has not yet officially been approved for use, the revisions are technically justified and their adoption is not considered a relaxation of safety requirements.