



**Commonwealth Edison**

One First National Plaza, Chicago, Illinois  
Address Reply to: Post Office Box 767  
Chicago, Illinois 60690 - 0767

January 22, 1988

Mr. Thomas E. Murley, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Quad Cities Station Unit 2  
Submittal of Inspection Plan for  
Piping Susceptible to Intergranular  
Stress Corrosion Cracking (IGSCC)  
for the Upcoming Spring 1988 Unit 2  
Refueling Outage  
NRC Docket No. 50-265

References (a): Generic Letter 84-11 dated April 19, 1984  
Regarding Inspections of BWR Stainless  
Steel Piping

(b): Letter from R. Auluck to D.L. Farrar  
dated March 23, 1987

Dear Mr. Murley:

Reference (a) provides the requirements for inspections to be performed at BWR facilities for piping that is susceptible to Intergranular Stress Corrosion Cracking (IGSCC). This transmittal provides the IGSCC inspection plan for the Spring 1988 Quad Cities Unit 2 outage in accordance with the requirements of Generic Letter 84-11. The transmittal also takes into account the items which we were required to address as a result of your most recent Unit 2 Safety Evaluation (Reference (b)). To facilitate final outage planning, we request your preliminary concurrence within 30 days of the receipt of this letter.

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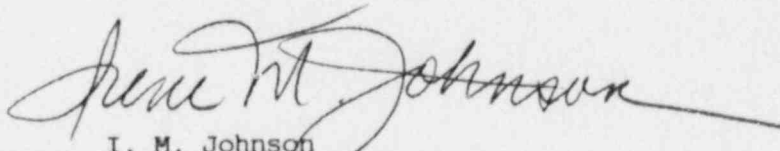
T. E. Murley

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Please direct any questions you may have regarding this matter to this office.

Very truly yours,

A handwritten signature in cursive script, reading "I. M. Johnson". The signature is written in dark ink and is positioned above the printed name and title.

I. M. Johnson  
Nuclear Licensing Administrator

lm

Attachment

cc: T. Ross - NRR  
NRC Resident Inspector - Quad Cities

4136K

Quad Cities Unit Two  
Plan for IGSCC Related Activities  
Spring 1988

During the Fall 1983 refueling outage, Induction Heat Stress Improvement (IHSI) was performed on approximately 100 IGSCC susceptible welds (77 recirculation welds, 10 RHR welds, and 13 RWCW welds). Consideration is being given to the performance of the Mechanical Stress Improvement Process (MSIP) on additional high temperature stainless steel welds during this outage.

1. The accompanying table titled "Augmented Stainless Steel Weld Inspection Plan-Spring 1988-Quad Cities Unit Two" provides the sampling plan for addressing Intergranular Stress Corrosion Cracking (IGSCC) concerns. The plan follows the requirements of Generic Letter 84-11. It also addresses the requirements of the Safety Evaluation (SER) dated March 23, 1987 for Quad Cities Nuclear Power Station, Unit 2.
2. The proposed inspection plan includes ultrasonic examination of 26 non IHSI and previously examined welds, 33 IHSI and previously examined welds, 7 welds with known flaws, and 14 overlaid welds. Additional welds will be examined after the application of MSIP.
3. IGSCC susceptible weld examinations will be performed by Level II or III inspectors qualified by EPRI after September 10, 1985. Examination of overlaid welds will be performed by Level II or III inspectors qualified by EPRI to inspect overlaid welds using the EPRI developed technique. Automated ultrasonic testing technique may be employed.
4. If IGSCC flaw indications are identified, they will be resolved consistent with the intent of Generic Letter 84-11. If repairs are required, weld overlays may be utilized which take into account flaw characterization, depth, length, and material toughness.
5. If flaw is found within the first inspection sample of a specific piping category, another equivalent sample of the same number of welds in that category will be inspected.

If flaw is found within the second inspection sample of a specific piping category, the remaining accessible welds in that category will be examined.

Categories are defined by the horizontal lines on the attached table.

The Noz-SE welds (12" and 28") in the Recirculation system are considered a separate category from the susceptible piping welds for the purpose of sample expansion. These welds have a corrosion resistant cladding on the ID over the weld and adjacent heat affected zones.

6. SER requirements addressed by the plan.
  - a. Approximately 50% of the uncracked LHSI treated welds will be reinspected during this outage. (SER Item 1)
  - b. Recirculation welds 02BS-S12 and 02BS-F14 will be reinspected during this outage. (SER Item 2)
  - c. Overlaid weld 02A-S10 will be reinspected this outage using the EPRI developed technique (automated UT technique may be utilized). Depending on the examination results, appropriate corrective action(s) will be implemented. (SER Item 3)

AUGMENTED STAINLESS STEEL  
WELD INSPECTION PLAN  
SPRING 1988  
QUAD CITIES UNIT TWO

	Size	Total	Not Prev. Exam. (Not Access- sible)	Prev. Exam. (A)	Non Cracked IHSI'd Welds	W.O.L	1988 84-11 & SER Sample			
							Not Prev. Exam	Prev. Exam.		W.O.L
								Non IHSI'd Welds	IHSI'd Welds (B)	
Recirculation										
Outlets	28"	30	0	30	19	6	0	0	10(C) + 5(D)	6
Noz-SE	28"	2	0	2	0	0	0	1	0	0
Header	22"	22	0	22	4	2	0	2	2	2(E)
Risers	12"	44	0	44	32	10	0	0	16 + 2(D)	5
Noz-SE	12"	10	0	10	0	0	0	2	0	0
RHR										
SDC	20"	18	2	16	2	2	0	2	1	1
LPCI	16"	32	3	29	6	0	0	3	3	0
Core Spray	10	27	2	25	0	0	0	5	0	0
Jet Pmp Inst	12", 8", 4"	10	0	10	0	0	0	2	0	0
Recirc, H.S, HV, CRD, RWCU	6" 4"	13 34	3 1	10 33	1 0	0 0	0 0	2 7	1 0	0 0
							0	26	33 + 7(D)	14

Total welds to be inspected = 0 + 26 + 33 + 7 + 14 = 80

Note: (A) Includes flawed welds.

(B) Includes 50% of IHSI'd welds to address SER requirement (SER dated March 23, 1987).

(C) Includes two 28" Recirculation welds: 02BS-S12 and 02BS-F14.

(D) Unrepaired cracked welds.

(E) Includes overlay weld 02A-S10.