



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 29, 1996

Mr. D. L. Farrar  
Manager, Nuclear Regulatory Services  
Commonwealth Edison Company  
Executive Towers West III  
1400 OPUS Place, Suite 500  
Downers Grove, IL 60515

SUBJECT: FLAW EVALUATION OF CORE SPRAY INTERNAL PIPING; QUAD CITIES, UNIT 1  
(TAC NO. M95121)

Dear Mr. Farrar:

During the current Quad Cities, Unit 1, refueling outage (Q1R14), crack-like indications were visually observed at two components of the core spray downcomer piping. The two flawed components, a lower sparger inlet elbow and an upper sparger inlet elbow, are located in the reactor annulus between the reactor vessel inside wall and the core shroud. The length of these indications, as measured by the visual and ultrasonic examinations, varied from 5.6 inches to 7.0 inches. The appearance of these indications were reported to be typical of intergranular stress corrosion cracking (IGSCC).

By a letter dated April 2, 1996, the licensee submitted a flaw evaluation report of the core spray internal piping for NRC review and approval. The staff held several conference calls with the licensee (April 1, 4 and 9, 1996). During the conference calls, the licensee provided the staff additional information and clarification regarding their flaw evaluation. The results of the licensee's evaluations demonstrated that sufficient margins exist to operate for one additional cycle (17,280 hours of hot operation) with the identified flaws.

Based on the staff's review of the licensee's flaw evaluations, the staff concludes that the structural integrity of the core spray components will be maintained during the next fuel cycle on the basis that the final flaw sizes at the end of the next fuel cycle will not exceed the Code allowable values. Therefore, Quad Cities, Unit 1, can be safely operated for the next fuel cycle without repairing the subject flawed core spray components. However, continued plant operation beyond the next fuel cycle will depend on the findings from the next reinspection of the core spray piping or by implementing acceptable repairs during the next refueling outage.

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D. L. Farrar

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April 29, 1996

The staff's safety evaluation (SE) is enclosed. This completes our effort for TAC No. M95121.

Sincerely,

Original signed by: M. D. Lynch for

Robert M. Pulsifer, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket No. 50-254

Enclosure: Safety Evaluation

cc w/encl: see next page

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D. L. Farrar

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April 29, 1996

The staff's safety evaluation (SE) is enclosed. This completes our effort for TAC No. M95121.

Sincerely,

A handwritten signature in black ink, appearing to read "R. M. Pulsifer", written in a cursive style. To the left of the signature is a small, stylized mark that looks like a checkmark or the letter "for".

Robert M. Pulsifer, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket No. 50-254

Enclosure: Safety Evaluation

cc w/encl: see next page

D. L. Farrar  
Commonwealth Edison Company

Quad Cities Nuclear Power Station  
Unit Nos. 1 and 2

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