UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20585-0001

January 23, 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: SAFETY EVALUATION RELATING TO THE DISCREPANCY OF THE RPV INTERNALS SEISMIC ANALYSIS AT QUAD CITIES, UNITS 1 AND 2 (TAC NOS. M93586 AND M93587)

Dear Mr. Farrar:
During the review of the seismic analyses for the Quad Cities, Units 1 and 2, shroud repair hardware design, a discrepancy was discovered in the nodal mass of the seismic models utilized in those analyses. Consequently, a new analysis was performed to confirm the seismic design adequacy of the existing shroud repair hardware design as well as other reactor pressure vessel (RPV) internals and the major vessel supports.

In the revised seismic analysis to confirm the adequacy of the existing shroud, the licensee refined the analytical techniques that resulted in higher safety margins. The refinements included a more realistic representation of the load sharing between the cracked shroud and the tie rod assembly.

A preliminary assessment of this nodal mass discrepancy was submitted to the staff on September 5, 1995 (Reference 1). The completed core shroud repair seismic analyses for Quad Cities, Units 1 and 2, was submitted to the staff on October 2, 1995 (Reference 2). In its submittal of October 31, 1995 (Reference 3), the licensee addressed the impact on the flaw evaluation of the core shroud at Quad Cities, Unit 1, and summarized the various evaluations performed earlier.

The staff has reviewed these submittals and based on its review has determined that the revised seismic analyses with the corrected mass in the seismic model will not change the conclusions of the staff's previous safety evaluations relative to the core shroud repair hardware for Quad Cities, Units 1 and 2, (Reference 4) and flaw evaluation of the core shroud cracking at Quad Cities, Unit 1 (Reference 5).

Our safety evaluation is enclosed. This concludes the activity related to TAC Nos. M93586 and M93587.

Sincerely,

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

Docket Nos. 50-254, 50-265
Enclosure: Safety Evaluation
cc w/encls: see next page

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| DATE | 0112196 | 01/22/96 |  | 01/23/96 |  |

## REFERENCES

1. Letter, J. Schrage (ComEd) to the U.S. NRC Document Control Desk, Subject - "Dresden Station Units 2 and 3, Quad Cities Station Units 1 and 2, Design Basis Discrepancy Related to Core Shroud Seismic Calculations," dated September 5, 1995.
2. Letter, P. Piet (ComEd) to the U.S. NRC Document Control Desk, Subject *Dresden Station Units 2 and 3, Transmittal of the Dresden Design Documents for the Core Shroud Repair, "dated October 2, 1995.
3. Letter, P. Piet (ComEd) to the U.S. NRC Document Control Desk, Subject "Dresden Nuclear Power Station Units 2 and 3; Quad Cities Nuclear Power Station, Units 1 and 2, Transmittal of the Quad Cities Design Documents for the Core Shroud Repair," dated October 31, 1995.
4. Letter, Robert M. Pulsifer (NRC) to D. L. Farrar, (ComEd), Subject "Quad Cities Nuclear Power Station, Units 1 and 2, Safety Evaluation Regarding Core Shroud Repair (TAC Nos. M91301 and M91301)," dated June 8, 1995.
5. Letter, John F. Stang (NRC) to D. L. Farrar, (ComEd), Subject "Resolution of Generic Letter 94-03, Intergranular Stress Corrosion Cracking of Core Shrouds in Boiling Water Reactors at Drestien, Units 2 and 3, and Quad Cities Units 1 and 2 (TAC Nos. M90088, M90DP8, M90109 and M90110)," dated January 31, 1995.
D. L. Farrar

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