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ESK-97-105

May 19, 1997

U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attn.: Document Control Desk

Subject: Dresden Station Units 2 and 3
Quad Cities Station Units 1 and 2
Revised Control Room Radiological Assessment
NRC Dockets Nos. 50-237 and 50-249
NRC Dockets Nos. 50-254 and 50-265

- References:
- (a) Control Room Habitability Study for Dresden Units 2 and 3, Commonwealth Edison Company, December 1981, submitted to the NRC via letter dated December 17, 1981, E. Douglas Swartz to D. G. Eisenhut.
 - (b) Control Room Habitability Study for Quad Cities Units 1 and 2, Commonwealth Edison Company, December 1981, submitted to the NRC via letter dated December 17, 1981, E. Douglas Swartz to D. G. Eisenhut.

The purpose of this letter is to formally request the NRC Staff's review and approval of a revision to the control room radiological analysis for Dresden and Quad Cities stations. The original Dresden and Quad Cities control room habitability studies [References (a) and (b)] were provided in response to NUREG 0737 requirements. The enclosed topical report enhances the original Dresden and Quad Cities control room radiological assessments by: (1) refining the control room radiological design basis; (2) updating the design inputs, assumptions and analytical methodologies used to calculate radiological doses for the control room; and (3) demonstrating a substantial increase in dose margins for the most-limiting postulated accidents.

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In addition, the enclosed topical report includes a revision to the offsite radiological consequences for the Design Basis LOCA event. The enhanced radiological methods were used to determine both the 2-hour Exclusion Area Boundary dose and the 30-day Low Population Zone dose.

The methodology described, along with the supporting calculations are intended to replace the current control room radiological dose assessments for Dresden and Quad Cities. The need for updated control room radiological analyses became apparent following the discovery of system non-conformances at both Dresden and Quad Cities Stations. While the Control Room Emergency Ventilation System non-conforming conditions at both stations have been corrected by implementing a program of sealing, balancing, and leak testing, this submittal is intended to demonstrate that adequate margin to regulatory limits has continued to exist using updated methodologies and input assumptions.

The revised analyses take credit for suppression pool scrubbing, updated iodine dose conversion factors, and higher burnup fuel designs. In addition, this topical report includes a review of the applicable methodologies and assumptions to ensure that they are both conservative and in conformance with current regulatory practices.

ComEd requests NRC approval of the enclosed topical report, inasmuch as it modifies the inputs, assumptions and methodologies used to develop the current licensing basis for the control room radiological analysis and the Design Basis LOCA offsite radiological analysis. ComEd anticipates that the acceptability of these design inputs, assumptions, analytical methodologies, and dose margins, may serve as the basis for: (1) future revisions of other design basis accident radiological analyses, relying on similar methodologies and assumptions, (2) operational evaluations of unanticipated potential variations in system performance, and (3) future Technical Specification improvement items (for example, increased MSIV allowed leakage).

The information provided herein has been reviewed in accordance with Company procedures and policies. ComEd requests NRC approval of the enclosed topical report within six months of receipt of this submittal.

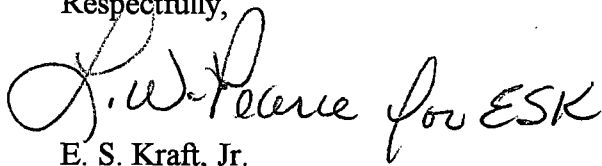
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If you have any questions concerning this letter, please contact Chuck Peterson,
Regulatory Affairs Manager, at (309) 654-2241, extension 3609.

Respectfully,



E. S. Kraft, Jr.
Site Vice President
Quad Cities Station

Enclosure: Control Room Radiological Assessment, Dresden and Quad Cities
Stations, May 16, 1997.

cc: A. Bill Beach, Regional Administrator - RIII
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