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Central file

February 29, 1980

Mr. James G. Keppler, Director
Directorate of Inspection and
Enforcement - Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: Dresden Station Units 2 and 3
Quad Cities Station Units 1 and 2
Zion Station Units 1 and 2
February 22, 1980 Telephone
Conversation Concerning IE Bulletin
79-02
NRC Docket Nos. 50-237/249, 50-254/265,
and 50-295/304

Dear Mr. Keppler:

On Friday, February 22, 1980, a telephone conversation was held between Commonwealth Edison Company (CECo.) in Chicago, NRC headquarters in Bethesda, and NRC Region III in Glen Ellyn, IL. Those representing CECo. were Messrs. J. S. Abel, G. J. Pliml, and D. B. Wozniak of Station Nuclear Engineering, R. F. Janecek of Nuclear Licensing, and Messrs. T. G. Longlais and T. A. McKenna of Sargent & Lundy. Representing NRC headquarters was Mr. H. Wong and representing NRC Region III was Mr. G. Gallagher.

This conversation was requested by members of the NRC staff for purposes of discussing a CECo. letter dated February 19, 1980.

In reference to item 2 of our letter, CECo. has recalculated the factors of safety on shell-type expansion anchors on safety related piping systems, as requested by the NRC, at Dresden, Quad Cities, and Zion Stations. Increased concrete strengths resulting from concrete mix overdesign, and concrete aging, and the utilization of curvilinear shear-tension interaction curves, were taken into account for the recalculation of safety factors. Results of this analysis indicate 15 expansion anchored hanger assemblies have factors

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of safety between 4 and 5. All remaining assemblies on safety related piping systems assemblies at Dresden, Quad Cities, and Zion have been found, by analysis, to have factors of safety of 5 or above. The 15 assemblies are currently being reviewed by CECo. and S&L to determine the feasibility of upgrading these assemblies to a factor of safety of 5. However, as stated in our February 19, 1980 letter, CECo. maintains that a factor of safety of 4 is still acceptable for shell-type expansion anchors, and will demonstrate this through our dynamic test program.

In reference to item 3, CECo. maintains that a factor of safety of 2 is a correct design basis for concrete expansion anchors for safety related pipe systems under SSE loads. However, it should be noted that a review of the design basis for Dresden, Quad Cities, and Zion have indicated that a minimum factor of safety of 4 was used for safety related pipe systems under SSE loading conditions.

In reference to item 4, CECo. is load testing bolts from each safety related pipe system at Dresden, Quad Cities and Zion Stations. Although the number of bolts load tested will not be such a quantity to meet the 95-5 criteria on a system basis, it will be met on a station basis. Base plates on safety related pipe systems will continue to be inspected for oversized/flame-cut holes, and corrective measures will be taken where required to repair this condition.

Please address any questions you may have concerning this matter to this office.

Very truly yours,

D L Peoples

D. L. Peoples
Director of
Nuclear Licensing

cc: Director, Division of Reactor
Operations Inspection

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