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June 3, 1983
EF2-63509

Mr. James G. Keppler, Regional Administrator
Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Subject: Final Report of 10CFR50.55(e) Item on Spacing of Concrete
Anchors (#42)

Dear Mr. Keppler:

This is Detroit Edison's final report on the spacing of concrete anchors. The problem was originally reported to Mr. G. Fiorelli of NRC Region III by Detroit Edison's Mr. H. A. Walker, Supervisor-Construction Quality Assurance, on March 26, 1981.

Numerous deviations of the minimum anchor bolt spacing and edge distance requirements, as outlined in Edison Project Specification 3071-226, had been identified. Anchor spacing or edge distance deviations not qualified for lower allowable anchor loads because the reduced concrete shear cone capacity, could cause the concrete to fail and result in the collapse of a hanger support, which in turn, could result in failure of a critical system.

Edison Field Engineering reviewed and analyzed eight hundred eighty-five (885) Anchor Bolt Surveillance Reports (ABSRs) generated by the Civil System Preparation Group of the Systems Completion Organization from their walkdown of the site. ABSR qualification calculations and dispositions were checked by Field Engineering and Edison Engineering-Troy. None of the approximately one thousand two hundred (1200) deviations required anchor relocation to achieve an adequate safety factor. Over half of the ABSR dispositions, however, called for rework to prevent installation of new anchors adjacent to violation zones, e.g., Gateway inserts were grouted full within ten (10) anchor diameters of the anchor bolts in question.

Deviations of anchor bolt spacing requirements found, that are not covered by the SCO-ABSR program, shall be dispositioned by Field Engineering on a case-by-case basis via the appropriate nonconformance document(s). If the spacing is acceptable, appropriate design change documents shall be issued to reflect the as-built anchor spacing.

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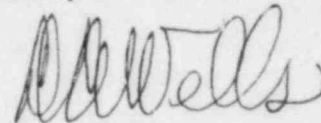
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To prevent deviations in the future, contractor engineering, quality control and craft personnel attended a site "Anchor Bolt Installation" training class.

If you have questions concerning this matter, please contact Mr. G. M. Trahey, Assistant Director - Project Quality Assurance.

Very truly yours,



DAW/WEM/pn

cc: Mr. Richard DeYoung, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
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