Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

May 26, 1994

William T. Russell, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Zion Station Unit 1 and 2
Steam Generator Girth Weld Inspection Results
NRC Docket Nos. 50-295 and 50-304

Reference: March 16, 1994 T.W. Simpkin letter to W.T. Russell

Dear Mr. Russell:

As a part of Zion Station's Dual Unit Outage activities, Commonwealth Edison Company completed ultrasonic examinations of the upper shell-to-transition cone girth welds for the steam generators on both units. The Reference letter provided the NRC the results of these inspections. Also included in the Reference letter was a brief discussion of previous inspection activities, and the results of the most recent examinations. For those indications that required the application of fracture mechanics to demonstrate continued acceptability, a copy of the fracture mechanics evaluation was included.

The purpose of this letter is to provide additional details related to the girth weld inspections. This information is included in the attachment to this letter.

Please direct any questions to this office.

Sincerely,

Lawrence W. Simpkin

T.W. Simpkin
Nuclear Licensing Administrator

TWS/gp

Attachment

cc: J.B. Martin - Region III
C.Y. Shiraki, Project Manager - NRR
J.D. Smith, Senior Resident Inspector - Zion

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ATTACHMENT

The following information was requested during a telephone conversation held on April 20, 1994.

1. Why was a magnetic particle examination not performed in addition to the ultrasonic examination?

Response:

The Unit 2 steam generator manways were not removed during the outage, so access to the interior of the steam generator was not available. For Unit 1, the secondary manways were not removed, so access to the transition cone region was not available. This precluded the performance of a meaningful magnetic particle examination.

2. Page one of the Zion steam Generator Girth Weld Flaw Evaluation dated November 24, 1993 references the 1992 of the ASME Code. This version is not approved for use, so a relief request to permit the application of this code must be submitted.

Response:

Zion Station utilized the non-mandatory Appendix A of the 1992 ASME Code to evaluate the fatigue crack growth rate of two modelled indications. This was done because the guidance provided by the 1992 Code is more detailed than previous editions of the Code. The fracture mechanics analyses that were performed to demonstrate continued acceptability utilized a crack growth rate derived from a statistical analysis of the grindout depths from previous inspections. This analysis provides a more conservative crack growth estimate than the 1992 ASME Code. Because the 1992 Code was not utilized in the fracture mechanics analysis, no relief request is necessary.