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April 20, 1984
EF2-67809

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

Dear Mr. Keppler:

Reference: Fermi 2
NRC Docket No. 50-341

Subject: Report of 10CFR50.55(e) Item on Design
Deficiency Concerning the Standard ED-14-3
Conduit Support (#119)

On March 13, 1984, Detroit Edison's Mr. Lewis P. Bregni, Engineer - Licensing telephoned Mr. D. Boyd of the NRC Region III to report a design deficiency concerning the Standard ED-14-3 conduit support at the Fermi 2 site.

Description of Deficiency

Giffels Associates, Inc., reported a possible design deficiency involving conduit support Standard ED-14-3 of Edison Specification 3071-128. Standard ED-14-3 is a simple cantilever type conduit support (i.e., supported at one end). The support may not have adequate structural capacity to support the maximum allowable loads specified in Specification 3071-128.

In the analysis of the Type 14-3 support, performed by Giffels Associates, Inc., seismic torsional loads were not considered. A further investigation revealed that these loads were not considered for any of the Type 14 supports identified in Specification 3071-128. The torsional loads to be considered arise from the eccentricity of the supported conduit(s) to the unistrut (i.e., cantilever arm) centerline. The incorporation of these loads into the analysis will substantially reduce the allowable loads that are delineated in the specification. This deficiency is limited to conduit supports involving unistrut members (i.e., supports identified in Specification 3071-128).

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Analysis of Safety Implications

General Design Criteria (GDC) 2 of Appendix A to 10CFR50 requires that structures important to safety be designed to withstand the effects of natural phenomena. The type 14-3 hanger is used to support both safety-and nonsafety-related conduit; as such, its failure during a seismic event could cause damage to safety related systems either by failure of the safety related cable being carried by the conduit or by possibly falling on to some safety related components.

Corrective Action

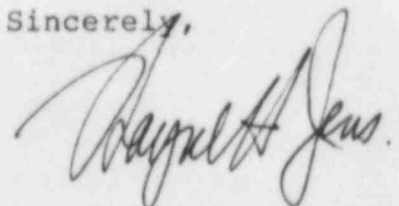
Giffels Associates, Inc. is currently analyzing the Type 14-3 conduit support to determine if it is capable of supporting the maximum allowable loads permitted by Specification 3071-128. Giffels will provide revised maximum allowable loads which will be incorporated into Specification 3071-128, should the hanger prove to be inadequate under critical loading conditions. Existing hangers that fail to meet the revised specifications will be modified or replaced.

In addition, Giffels Associates, Inc. will investigate all other Type-14 supports to determine if they have adequate structural capacity under critical loading conditions. Supports whose integrity is unacceptable or indeterminate will be individually analyzed and/or modified or replaced.

Giffels will review all supports in Specification 3071-128 and notify Edison of any that may be subject to high torsional stress. Supports whose integrity is unacceptable or indeterminate will be individually analyzed and/or modified or replaced. Required revisions to Specification 3071-128 will be made as deemed necessary.

Another report on this item, either interim or final, will be sent when further information is available. If you have questions concerning this matter, please contact Mr. Lewis P. Bregni, (313) 586-5083.

Sincerely,



cc: Mr. P. M. Byron
Mr. R. C. DeYoung
Mr. R. C. Knop