



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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Harold L. Williams
EXECUTIVE VICE PRESIDENT

October 16, 1981

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



RE: Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
Torquing of Electrical Cable
Tray Splice Plate Bolts
[RDC 37(81)]

Dear Mr. Keppler:

This letter serves as an Interim Report pursuant to 10CFR50.55(e) concerning the adequacy of the method used by our electrical installation contractor to install cable tray splice plate bolts. Initial notification that this problem was being evaluated was made on September 18, 1981, to Mr. F. Reimann of your office by Mr. G. R. Leidich of The Cleveland Electric Illuminating Company.

This report includes a description of the identified nonconformance and the methods to be used to complete our evaluation.

Description of Deficiency

During a surveillance of the Electrical installation contractor's method of tightening the splice plate bolts that join tray sections together, it was observed that the contractor was using an electric impact type wrench to seat and tighten these bolts and that no maximum or minimum torque value was specified in the installation procedure or inspection checklists.

Additionally, no specific torque values are listed by the manufacturer of the tray system (B-Line Systems, Inc., of Highland, Illinois). However, in a letter to the installing contractor from B-Line Systems, Inc., dated December 20, 1978, test results are mentioned indicating an average failure at 91 ft.-lbs. The letter further states that "using 50% of failure would result in an allowable maximum torque of 45 ft.-lbs."

Using the value of 45 as a reference, our Construction Quality Section selected at random 20 Splice Plates and checked the torque on the bolts. Of the 160 bolts selected, 126 were tightened to a torque in excess of 45 ft.-lbs.

Installation practices which permit the torque value discussed in the B-Line Systems Letter to be exceeded have potentially jeopardized the validity of the seismic qualification program with respect to the splice plates as submitted by B-Line Systems, Inc.

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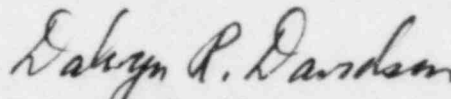
Method of Evaluation

Further evaluation and communications among the Tray System Supplier, Installing Contractor, Licensee, and the Architect/Engineer have been ongoing to resolve this situation. Preliminary findings indicate that the maximum recommended load shall not exceed an allowable torque equal to 60% of the ultimate failure for the 3/8 inch carriage bolts, or 54 ft.-lbs.

It is anticipated that final resolution and development of any required corrective action measures will be formalized by the Architect/Engineer, Site Engineering and the Contractor within the next month. Until this item is fully resolved, the Contractor has recalled all electric impact wrenches and has instituted a program which addresses the use of hand-operated wrenches with a maximum torque not to exceed 45 ft.-lbs. for the specific splice bolt connection.

We are presently planning to file our next report on this subject on November 30, 1981, and have provided the preceding summary of the information presently available to remain in compliance with the reporting requirements established by 10CFR50.55(e). Please call if there are any questions.

Very truly yours,



Dalwyn R. Davidson
Vice President
System Engineering and Construction

DRD:pab

cc: USNRC - Site

Mr. Victor Stello, Director
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