



# THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

P.O. BOX 5000 - CLEVELAND, OHIO 44101 - TELEPHONE (216) 622-9800 - ILLUMINATING BLDG. - 55 PUBLIC SQUARE

*Serving The Best Location in the Nation*

MURRAY R. EDELMAN

VICE PRESIDENT  
NUCLEAR

March 31, 1983

Mr. James G. Keppler  
Regional Administrator, 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  
Final Report on Cable Tray and  
Conduit Support Welding Deficiencies  
[RDC 56(82)]

Dear Mr. Keppler:

This letter represents our final report pursuant to 10CFR50.55(e) on the significant deficiency concerning defective welds for cable tray and conduit supports. This report summarizes the programmatic actions initiated by us with corresponding corrective actions implemented and completed to formally address this deficiency, as reported on April 30, 1982, by Mr. E. Riley of The Cleveland Electric Illuminating Company (CEI) to Mr. H. Wescott of your office. Our interim report on this subject was filed May 28, 1982.

This report contains a description of the deficiency, analysis of safety implication, program implementation by CEI and the corrective action taken, and our anticipated date of completion.

## Description of Deficiency

The weld symbol type Y(t), as specified by the ENGINEER in the fabrication and assembly of cable tray and conduit hanger member to member joint attachments, was not accurately interpreted, nor member fit-up and weld preparation completed in accordance with AWS D1.1-75 standards. The areas of major concern addressed the lack of the minimum weld penetration and the proper 45° fit-up bevel.

## Analysis of Safety Inspection

Welds that do not provide adequate structural integrity for hanger supports may not perform as required in the event of a seismic event or loss of coolant accident.

The hangers may be supporting safety systems. Failure to support these safety systems may negatively impact the ability of the Plant to achieve safe shutdown.

IE 27

8304110201 830331  
PDR ADOCK 05000440  
S PDR

APR 4 1983

Corrective Action Taken

The deficient weld condition was identified, in part, on Nonconformance Reports CQC 2443 and CQC 2444 and clarification for both installation and inspection of Y(t) weld was provided to the Contractor.

To assess and evaluate the potential problem associated with hangers previously installed, a program was developed to analyze all supports with a Y(t) joint configuration on a case-by-case basis to determine the adequacy and structural integrity of the existing welds.

The evaluation and verification of these hangers was initiated by Project Engineering on May 17, 1982. This program required a complete review of each "suspect" hanger by means of field inspection and structural analysis of the field configuration by Gilbert Design Engineering.

Phase I addressed a total of approximately 1,300 hangers which was compiled by the contractor and submitted to the engineer for review. This list summarized all hangers which were completed and installed or in various stages of fabrication. The engineering effort during Phase I included the checking and analysis of approximately 4,000 connections which concluded that a total of 30 support hangers required rework. Additional information was required for further analysis of 210 hangers.

Phase II provided for engineering analysis of these 210 hangers.

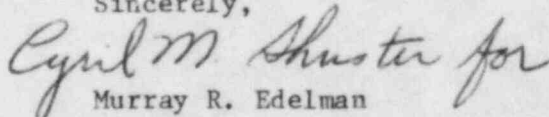
Phase I and II resulted in identification of 98 supports as requiring rework. This number represents 7% of all the hanger supports reviewed. These cases were recorded on nonconformance reports as they were identified.

The overall review by the engineer and project engineering elements to analyze and identify "suspect" deficient hangers has been completed. The rework by the contractor is only partially complete as of this date. The work associated with these hangers has been documented on nonconformance reports which will be used to track and monitor the corrective actions to ensure that all welding repair has been completed in accordance with the approved program.

The expected completion date for reworking these items is September 15, 1983.

Please call if there are additional questions.

Sincerely,



Murray R. Edelman  
Vice President  
Nuclear Group

MRE:pab

cc: Mr. M. L. Gildner  
NRC Site Office

Director  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

U.S. Nuclear Regulatory Commission  
c/o Document Management Branch  
Washington, D.C. 20555

Records Center, SEE-IN  
Institute of Nuclear Power Operations  
1100 Circle 75 Parkway, Suite 1500  
Atlanta, Georgia 30339