



# THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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August 17, 1984

MURRAY R. EDELMAN

VICE PRESIDENT  
NUCLEAR

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  
Instrumentation 2:1 Fillet Welds  
[RDC 110 (84)]

Dear Mr. Keppler:

This letter serves as an interim report pursuant to 10CFR50.55(e) concerning concave 2:1 unequal leg fillet welds installed in Unit #1 Reactor Building by our Instrumentation and Controls contractor, Johnson Controls, Inc. Mr. R. Knop of your office was first notified on July 18, 1984, by Mr. E. Riley of The Cleveland Electric Illuminating Company that this problem was being evaluated per our Deviation Analysis Report 190.

This report contains a description of the deficiency, corrective action taken to date, analysis of safety implication, and the planned date for our final report.

### Description of the Deficiency

Field inspection indicates that in some cases the 2:1 unequal leg fillet welds installed by Johnson Controls, Inc., (JCI) on 2", 3/4" and 1/2" instrument piping/tubing in Unit #1 Reactor Building (specifically inside Drywell and outside Drywell below the 620 ft. elevation) do not meet design requirements as specified on Gilbert/Commonwealth, Inc., (G/C Inc.) drawings.

### Analysis of Safety Implication

Based on G/C Inc. design, it can be postulated that the deficient welds would result in an unacceptably high Stress Intensification Factor (SIF) at the transition from the toe of the weld to the pipe/tubing. The resulting overstress condition could potentially cause cracking at the toe of the fillet weld and eventual failure of the safety-related Instrumentation and Control System.

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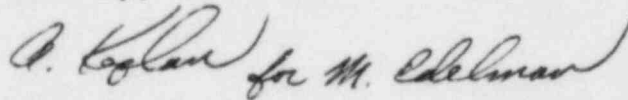
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Corrective Action Taken to Date

Indoctrination and training was given to all Johnson Control (JCI) welders and QA/QC personnel on the acceptance criteria for 2:1 unequal leg fillet welds. JCI QC is reinspecting all installed 2:1 fillet welds and reporting the condition (leg sizes, actual profile) of each weld via Nonconformance Reports (NR). Engineering is evaluating the inspection results to determine which welds are nonconforming and will perform analysis of the pipe to determine which nonconforming welds require rework. Upon completion of the analysis, the NRs will be dispositioned and all required rework will be performed. Construction Quality Section is performing surveillance on new installations.

We expect to complete the reinspection, analysis and rework by December 31, 1984. Our final report will be submitted by January 11, 1985. Please call if there are any additional questions.

Sincerely,



Murray R. Edelman  
Vice President  
Nuclear Group

MRE:sr

DW87/0/2

cc: Mr. J. A. Grobe  
USNRC, Site Office

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