



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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Dalwyn R. Davidson

VICE PRESIDENT

SYSTEM ENGINEERING AND CONSTRUCTION

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July 13, 1981

Mr. James G. Keppler
Director of 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 - Nonsafety Sensing
Lines on Safety-Related Receiver
Tanks
[RDC 30(81)]

Dear Mr. Keppler:

This letter serves as a final report as required by 10CFR50.55(e) concerning safety-related receiver tanks for the emergency diesel starting system being connected to nonsafety-related sensing lines through normally open, safety-related valves for both Units I and II. This was first reported by W. J. Kacer of The Cleveland Electric Illuminating Company to R. Warnick of your office on June 12, 1981.

This report includes a description of the deficiency, an analysis of the safety implication, and the corrective action taken.

Description of Deficiency

Gilbert Associates Incorporated, the Architect/Engineer for Perry Nuclear Power Plant, design drawings D302-351 and D352-351 cover the piping system for the R-44 Standby Diesel Generator Starting Air Systems. The present design shows sensing lines tapping off the receiver tanks for the emergency diesel starting system. The sensing lines [eight (8) in total] go through normally open valves. The tank and the portion of the line, up to and including the valve, are designed as safety-related. The remaining portion of the sensing line is designed as nonsafety-related.

Analysis of the Safety Implications

Since the lines are nonsafety-related, we must assume that they disappear if a seismic event should occur. Therefore, during a seismic event the tanks would start blowing down through the sensing lines, the compressor would run continuously and the low pressure alarm would come in. The

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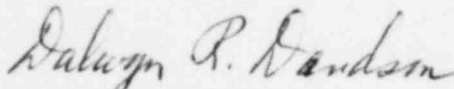
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compressor, however, is nonsafety-related and would not be considered to operate during a seismic event. The capability of the diesel generator to start would then be lost after some time as the 2 independent tanks blow down. Thus, with these assumptions, the failure of the lines would impair the system safety function.

Corrective Action Taken to Date

Gilbert Associates Incorporated is currently revising the design to replace the existing valve with an automatically-closing isolation valve in the sensing line. Therefore, in case of a break in the nonsafety line, the valve will automatically close preventing the tank from blowing down through the sensing lines. This new valve will be designed and installed as safety-related. Anticipated completion of this activity is October of 1981.

Very truly yours,



Dalwyn R. Davidson
Vice President
System Engineering and Construction

DRD:pab

cc: Mr. J. Hughes - NRC Site

Mr. Victor Stello, Director
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