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MURRAY R. EDELMAN
VICE PRESIDENT
NUCLEAR

October 17, 1985

PY-CEI/OIE 0127 L

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
Divisional Separation
Requirements for the Neutron
Monitoring System [RDC 143(85)]

Dear Mr. Keppler:

This letter is the final report pursuant to 10CFR50.55(e) concerning divisional separation requirements for the Neutron Monitoring (C51) System. This item was reported by telephone to Mr. J. McCormick-Barger of your office on July 10, 1985, by Mr. E. Riley of The Cleveland Electric Illuminating Company (CEI). This item was evaluated per Deviation Analysis Report 248, and an interim report was submitted on August 8, 1985. It has been determined that this condition is not reportable pursuant to 10CFR50.55(e).

Description of Potential Deficiency

The power supply to the Neutron Monitoring (C51) System was changed to the Anticipated Transient Without Scram, Uninterruptable Power Supply (ATWS UPS) using 120V AC vital inverters (R14 Systems). Since the C51 System has four divisions, R14 was split into four divisions. A note was added to the elementary diagram (B-208-038, sh. B01) to maintain separation from the Reactor Protection System (RPS) cables. In some instances this requirement was not carried through to the wire list or in the field. Also, there was no requirement to maintain separation for ATWS UPS power from Engineered Safety Features (ESF) Divisional Power. Because of this, Division 3 ATWS UPS (fed from ESF, Division 1) cables are routed with ESF Division 3 cables. This was considered to be a potential violation of the divisional separation requirements of Regulatory Guide 1.75.

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Completion of Evaluation

The worst case condition that can be postulated is a fault on both an ECCS divisional cable and the divisional Neutron Monitoring System Power Supply. These cables share a common cable raceway.

For every case where this fault can occur, a safety-related circuit breaker in series with a fuse protects the 480V AC and 125V DC busses. Two safety-related means are thus provided to clear the worst postulated condition prior to causing any detrimental effects on any other Division 1 and 2 Class 1E loads. The separation requirements of Regulatory Guide 1.75 have been met pursuant to the implementation described in FSAR Tables 1.8-1 and 8.1-2. In addition, General Electric, our NSSS Supplier, evaluated the conditions which led to the identified problem and found no other similar occurrences of this situation. Therefore, this condition does not represent a significant deficiency as defined in 10CFR50.55(e).

If there are any questions, please call.

Sincerely,

Murray R. Edelman
Vice President
Nuclear Group

MRE:sab

cc: J. A. Grobe
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