



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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MURRAY R. EDELMAN
VICE PRESIDENT
NUCLEAR

February 19, 1986
PY-CEI/NRR-0435 L

Dr. W. D. Butler, Director
BWR Project Directorate No. 4
Division of BWR Licensing
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
ICSB Audit Closure
UPS Division 3 Separation

Dear Dr. Butler:

The purpose of this letter is to provide information and commitments sufficient to resolve the Instrument and Control Systems Branch (ICSB) concern related to the use of overcurrent protection devices (breakers and fuses) as isolation devices. This issue was identified by the ICSB in their trip report dated May 31, 1985. Region III subsequently assigned it an inspection item number (50-440/85033-01). This issue is also related to Deviation Analysis Report (DAR) 248 which has been addressed by CEI letters to Region III, dated August 8, 1985 (PY-CEI/OIE-0093L) and October 17, 1985 (PY-CEI/OIE-0127L).

During the April, 1985 audit conducted by the ICSB, a concern was identified related to the design of the Division 3, average power range monitor (APRM) power supply (Panel 1H13-P671). Power to the APRM panels had initially been provided from the reactor protection system (RPS) power supply. During installation of the modifications to meet the ATWS rule requirements, the power supply was changed to an uninterruptible power supply (UPS), fed from the Division 1 and 2 emergency busses. Two uninterruptible power supplies were procured and installed in making this change. The resultant APRM channels and power supplies were designated Division 1, 2, 3 and 4.

A separation concern, resulting from this change, was raised by the ICSB in that the Division 3 high pressure core spray (HPCS) cables (supplied from the Division 3 ESF bus) are not separated from the Division 3 UPS cables, which are powered, but electrically isolated, from the Division 1 ESF bus. This design provides for a very reliable power supply for the APRM's. We have analyzed the existing design and have determined that adequate isolation exists, through breakers and fuses in series, such that no single failure will cause the loss of both Division 1 and Division 3 ESF busses. Furthermore, we have coordination tested the existing breakers and similar fuses and have determined that they meet the Regulatory Guide (R.G.) 1.75 criteria for isolation devices established for Perry in FSAR Table 8.1-2.

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Dr. W. D. Butler

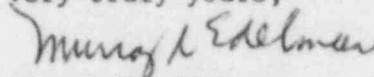
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Although we believe that the present design meets single failure criteria and our commitment to R.G. 1.75, based on discussions with the NRC staff, CEI has committed to a design modification to provide further isolation between the Division 1 power supply and the ATWS Division 3 circuits. CEI will obtain and install a 1E qualified isolation transformer in the power supply to the Division 3 APRMs prior to exceeding 5% rated thermal power. This design change will be documented in a future FSAR amendment. We would propose this commitment be added to the outstanding items to be completed prior to exceeding 5% power, noted in Attachment 1 to our operating license. This design change will be documented in a future FSAR amendment.

Please feel free to contact me, should you desire any further information.

Very truly yours,



Murray R. Edelman
Vice President
Nuclear Group

MRE:njc

cc: J. Silberg, Esq.
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J. Grobe