



Commonwealth Edison
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Chicago, Illinois 60690

August 6, 1985

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Byron Unit 2
Braidwood Units 1 and 2
Supplemental Request for Additional
Information on Separation Criteria
NRC Docket Nos. 50-455, 50-456/4567

Reference (a): July 15, 1985 BJ. Youngblood Letter to DL. Farrar

Dear Mr. Denton:

Enclosed is the engineering response with supporting documentation in response to your request to perform an evaluation of separation criteria of Class 1E from non-class 1E cables.

Commonwealth Edison Company's electrical separation criteria utilized in the design and construction of Byron and Braidwood Stations is stated in Section 8.3 of the Byron/Braidwood FSAR. The separation criteria which was established between redundant Class 1E raceways is consistent with NRC Regulatory Guide 1.75 and IEEE Std. 384-1974. However, the criteria for separation of non-Class 1E from Class 1E cable raceways is established at the reduced distance of 12 inches vertical and 3 inches horizontal which deviates from the separation criteria of Regulatory Guide 1.75. In keeping with Byron/Braidwood's commitment to Regulatory Guide 1.75 as stated in Appendix A to the FSAR, a calculation has been prepared to justify the lesser separation between Class 1E and Non-Class 1E raceways. Sargent & Lundy calculation number Q-13 ("Justification for Electrical Separation Distances Between Safety-Related and Non-Safety-Related Raceways", Rev. 0, dated August 1, 1985) was prepared in accordance with IEEE 384-1974 and Byron/Braidwood's commitment to Regulatory Guide 1.75. A copy of this calculation is submitted for your review.

In addition, in order to justify the electrical separation distance between Class 1E and non-Class 1E cables when one is in a raceway and the other is routed in free-air, Sargent & Lundy calculation number Q-14 ("Justification for Electrical Separation

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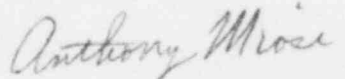
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Between Safety-Related and Non-Safety-Related Cables When One is in Free-Air and the Other is in a Raceway", Rev. 0, dated August 1, 1985) has been prepared. This calculation has been prepared in accordance with Byron/Braidwood's commitment to Regulatory Guide 1.75 and IEEE Std. 384-1974, and is submitted for your review.

An expeditious review of our response is requested in light of the upcoming August CAT audit at Byron Unit 2. This would serve both of our interests with resolution of this issue. Please direct any questions you or your staff may have regarding this matter to this office.

One signed original and fifteen copies of this letter and enclosures are provided for your review.

Very truly yours,



A. D. Miosi
Nuclear Licensing Administrator

/klj
cc: J. Stevens (NRC)

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