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U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Gentlemen:

Joseph M. Farley Nuclear Plant - Units 1 and 2
Comments on Draft Regulatory Guide

In August 1987, the Nuclear Regulatory Commission issued for comment a draft regulatory guide entitled "Qualification of Safety-Related Lead Storage Batteries for Nuclear Power Plants". Alabama Power Company's Comments on this draft regulatory guide are attached.

If you have any questions, please advise.

Respectfully submitted,

R. P. McDonald

RPM/REM:dst-D1

Attachment

cc: Mr. L. B. Long
Dr. J. N. Grace
Mr. E. A. Reeves
Mr. W. H. Bradford

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ATTACHMENT

The application of standard IEEE 535-1986 to the qualification of safety-related batteries should enhance the licensing process for new plants; however, there are several sections of the draft guide and the supporting documentation that appear to be in conflict. Of primary concern are the NRC's stated preference for natural aging with the intention of applying the regulatory guide to all operating nuclear power plants. Major hardships could be placed on operating plants by limiting replacement batteries to only those that are naturally aged.

Within the DRAFT VALUE/IMPACT STATEMENT, paragraph three of the Value section states that this guide will endorse IEEE 535-1986 without any exceptions. However, Section B, Discussion, page 2, paragraph 3 of the draft guide states that the NRC Staff prefers natural pre-aging of safety-related batteries. IEEE 535-1986 provides for pre-aging by natural or artificial aging. Consequently, there is conflicting references to the acceptability of the use of artificial aging.

The Impact statement on page 5 states that the draft guide applies to future nuclear plants only and has no backfit provisions; however, the Discussion section on page 2 proposes to include replacement batteries in all operating nuclear power plants. Again, a conflict exists as to the proposed applicability of the draft guide.

If a strong preference for using only natural pre-aging is combined with the application to replacement batteries for all operating plants, the potential impact on the current licensees is significant in regard to both cost and increased requirements.

An example of a hypothetical replacement battery may help to illustrate the above point. Suppose a currently operating nuclear plant has a safety-related battery that requires replacement after 15 years of operation. The battery had been seismically qualified by type testing with artificial pre-aging completed prior to the seismic test. With the new draft guide in effect, the licensee may have to pay for the qualification testing of the replacement battery if qualification by type testing with natural pre-aging has not been done, locate an equivalent battery that has the proper qualification testing, or possibly replace several cells of the existing battery early and have them seismically tested to qualify the replacement by type testing. In any event, additional costs are involved in documentation and testing and the replacement battery would have to be an older type that had been naturally aged.

The dilemma faced by the licensee is that the NRC's preference for natural aging limits the choice for replacement batteries to the older types of cells. New or improved technologies could only be used after an extended observation period. Life extension would then require further testing.

In view of the above factors, we suggest that the application of the regulatory guide be limited to new plants with no backfit provisions at present. We also suggest that a joint effort by the NRC, IEEE, licensees, and other nuclear industry organizations be made to resolve any qualification concerns.