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JACKET NUMBER
PROPOSED RULE PR - *misc
Reg Guide*

December 18, 1979

Secretary of the Commission
Docketing and Service Section
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Sir:

Enclosed are our comments on Regulatory Guide 1.131,
"Qualification Testing of Electrical Cables and Field
Splices for Light Water Cooled Nuclear Power Plants."
This is Revision 1.

We appreciate having been given the opportunity to
comment.

Yours very truly,

J. S. Loomis, Head
Nuclear Safeguards &
Licensing Division

JSL:WTD:bc

Enclosure

Copies:

R. F. Janacek (1/1)

G. P. Wagner (1/1)

NSLD File 1B-4 (1/1)

Acknowledged by card.....*dlb*

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NRC REGULATORY GUIDE 1.131, Revision 1 "QUALIFICATION TESTING OF ELECTRICAL CABLES AND FIELD SPLICES FOR LIGHT WATER COOLED NUCLEAR POWER PLANTS" (August 1979)

1. Regulatory Position C5 requires that "synergistic effects on aging, due to the simultaneous application of environmental conditions, shall be considered in the accelerated aging program." This requirement is based solely upon qualification testing performed by Sandia Labs for the NRC. A specific reference to the Sandia Report (SAND78-0799) is included as a footnote in the regulatory guide. The referenced Sandia Report includes the following statement in the test summary section:

"There were no functional failures in either test, with cables and cables with splices maintaining their rated current and rated voltage through both tests. The preliminary indications are that no significant, functional or material synergisms exist."

With these very clear conclusions stated in the Sandia Report, there is no technical justification for the regulatory guide to require consideration of synergistic effects in qualifying cables and splices. The regulatory guide should be revised to delete consideration of synergistic effects or clearly state the technical justification for requiring it.

2. The regulatory guide references Regulatory Guide 1.120 for cable separation criteria with respect to fire protection. Regulatory Guide 1.120 has not been officially issued for implementation and is currently undergoing an extended public review period. Therefore, the referencing of the regulatory guide is at best premature and should be deleted.
3. The regulatory guide states that the qualification testing margins referenced in IEEE-323 (1974) shall be used. The testing margins in IEEE-323 are not mandatory and are suggested values only which may or may not apply to cable qualification. A more realistic approach to addressing margin in qualification testing is described in the recently-approved IEEE Standard 627. The regulatory guide should address margin accordingly.

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