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IEEE Standard Seismic Testing of Relays

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IEEE Standard Seismic Testing of Relays

Sponsor
**Power System Relaying Committee
of the
IEEE Power Engineering Society**

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Foreword

(This Foreword is not a part of IEEE Std 501-1978, Standard Seismic Testing of Relays.)

This is a standard for developing data related to the seismic capabilities of relays. This standard compliments ANSI/IEEE Std 344-1975, Recommended Practices for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations, which provides general guidelines for developing data related to seismic qualification of equipment used in nuclear generating plants.

Data must be developed by testing rather than analytical means since protective relays fall into the category of complex devices as described in Section 5 of ANSI/IEEE Std 344-1975; however, analysis may be used in data reduction, in reconciling response spectra, in justifying methods of evaluating changes, and in justifying seismic qualifications of relays of similar construction.

While aging is recognized as a potential influence on the seismic capability of relays, insufficient definition presently exists to permit realistic simulation of end-of-life for various relays. When applicable definition of the various degrading factors and methods of accelerating the effect of these factors is developed in other related standards, they should be considered in the previbration preparation.

It should be emphasized that while a primary purpose in preparing this standard was to cover the application of relays to nuclear generating plants, the standard is not restricted to this application. This standard may be applied to any area in which the seismic response of relays is a design consideration.

This standard was prepared by Working Group K1 (Seismic Relay Performance) of Subcommittee K (Relay Practices) of the Power System Relaying Committee. The members of the working group are:

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