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IEEE Guide for Seismic Qualification of Class 1E Metal-Enclosed Power Switchgear Assemblies

Sponsor
**Switchgear Committee
of the
IEEE Power Engineering Society**

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Abstract: IEEE C37.81-1989, *IEEE Guide for Seismic Qualification of Class 1E Metal-Enclosed Power Switchgear Assemblies*, provides specific requirements and guidance for seismic qualification of metal-enclosed power switchgear assemblies. This guide may also be used in other applications in which seismic response of metal-enclosed power switchgear assemblies is a consideration.

Keywords: Class 1E metal-enclosed power switchgear assemblies, generic response spectrum (GRS), performance requirements, seismic criteria

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Foreword

(This Foreword is not a part of IEEE C37.81-1989, IEEE Guide for Seismic Qualification of Class 1E Metal-Enclosed Power Switchgear Assemblies.)

This guide complements ANSI/IEEE Std 344-1987, Recommended Practice for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations [10]¹ by providing specific requirements and guidance for seismic qualification of metal-enclosed power switchgear assemblies.

Metal-enclosed power switchgear assemblies fall into the category of complex devices as described in ANSI/IEEE Std 344-1987 [10]; therefore, basic seismic qualification is dependent on test data. Analysis may be used in data reduction, reconciling response spectra, and evaluating changes. A method of combined test and analysis may also be used in justifying seismic qualification of similar equipment to the tested samples.

It should be noted that while the primary purpose of this guide is for the application of metal-enclosed power switchgear assemblies in nuclear power generating stations, it is not restricted to this application. This guide may also be used as a guide in other applications in which the seismic response of metal-enclosed power switchgear assemblies is a consideration.

At the time this guide was published, it was under consideration for approval as an American National Standard. The Accredited Standards Committee on Power Switchgear, C37, had the following members at the time this guide was sent to letter ballot:

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¹The numbers in brackets correspond to the references listed in 1.2 of this guide.

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