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IEEE Guide for Application of Composite Line Post Insulators

IEEE Power Engineering Society

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IEEE Guide for Application of Composite Line Post Insulators

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Abstract: This is a guide for the application of composite post insulators to overhead transmission and distribution lines. It is based on utility field experiences, results of research laboratory tests, and manufacturers' recommendations.

Keywords: composite line post insulators, core, end fittings, grading devices, transmission and distribution lines, weathersheds

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Introduction

(This introduction is not part of IEEE Std 1572-2004, IEEE Guide for Application of Composite Line Post Insulators.)

Composite insulators, both suspension and line post types, are being widely used by utilities for supporting and insulating electric transmission and distribution lines. Many of the characteristics of composite insulators, such as performance on standard electrical design tests, are similar to those for ceramic insulators. Some characteristics, however, are unique to composite insulators. For the line post type, an example is the response of the insulators to combined dynamic mechanical loads. Therefore, to successfully apply composite insulators, guidance is needed. This application guide provides information for composite line post insulators. It is based on service experience, laboratory tests, and manufacturers' recommendations.

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Participants

This guide was prepared by a task force of the working group on Composite Insulators, Lightning and Insulator Subcommittee, Transmission and Distribution Committee, of the IEEE Power Engineering Society. At the time this guide was initiated, George. G. Karady was the chairman of the working group. D. H. Shaffner originated as the chairman of the task force, R. Allen Bernstorf succeeded in this role, and both were instrumental in guiding development of this guide. The following is a list of participants in the task force.

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