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IEEE Guide for Substation Fire Protection

IEEE Power and Energy Society

Sponsored by the
Substations Committee

IEEE
3 Park Avenue
New York, NY 10016-5997
USA

27 November 2012

IEEE Std 979™-2012
(Revision of
IEEE Std 979-1994)

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Approved 30 August 2012

IEEE-SA Standards Board

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Abstract: Guidance is provided to substation engineers in determining the design, equipment, and practices deemed necessary for the fire protection of substations.

Keywords: fire, fire protection, hazard, IEEE 979™, risk, safety, substation design, substations

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PDF: ISBN 978-0-7381-7311-5 STD97286
Print: ISBN 978-0-7381-7326-9 STDPD97286

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Introduction

This introduction is not part of IEEE Std 979-2012, IEEE Guide for Substation Fire Protection.

Since the original edition of IEEE Std 979 (issued in 1994 and reaffirmed in 2004) was prepared, the body of knowledge on fire protection has increased significantly. This revision captures much of this knowledge and presents it for use by both the substation designer and the fire protection professional.

Contents

IEEE Guide for Substation Fire Protection

1. Overview

1.1 Scope

The original guide (1994) was developed to identify substation fire protection practices that generally have been accepted by industry. This revision includes changes in industry practices for substation fire protection. New clauses on fire hazard assessment and pre-fire planning have been added.

1.2 Purpose

The purpose of the original guide (1994) was to give design guidance, fire hazard assessment, and pre-fire planning in the area of fire protection to substation engineers. Existing fire protection standards, guides, and so on that may aid in the design of specific substations or substation components are listed in Annex F. This revision updates that guidance.

1.3 General

The guide outlines substation fire protection practices based on industry standards and good practices. It incorporates lessons learned from substation fires, substation fire protection research and testing, advancements in fire protection engineering practices, and changes in fire protection due to risk and