

IEEE Guide for Animal Deterrents for Electric Power Supply Substations

IEEE Power and Energy Society

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Substations Committee

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IEEE Std 1264™-2015
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Approved 16 February 2015

IEEE-SA Standards Board

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Abstract: This guide documents methods and designs to mitigate interruptions, equipment damage and personnel safety issues resulting from animal intrusions into electric power supply substations, thereby improving reliability and safety, and minimizing the associated revenue loss.

Keywords: animal, barriers, coating, damage, deterrent, IEEE 1264™, insulation, intrusion, mitigation, noise, outages, program, repellent, survey

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Bruce Dietzman
Huan Dinh
Alan Gaetz
Joseph Gravelle

David Harris
Scott Lehman
Reginaldo Maniego
Donald Moore

Harsh Naik
Shashikant Patel
Hamid Sharifnia
Boris Shvartsberg
Diane Watkins

The following members of the individual balloting committee voted on this guide. Balloters may have voted for approval, disapproval, or abstention.

William Ackerman
Satish Aggarwal
Ali Al Awazi
Stan Arnot
W. J. (Bill) Bergman
Steven Bezner
Harvey Bowles
Steven Brown
Robert Christman
Randy Clelland
Tommy Cooper
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Randall Dotson
Edgar Dullni
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Laura Longton
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Daleep Mohla
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Anthony Picagli
John Randolph
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Charles Rogers
Tim Rohrer
Thomas Rozek
Anne-Marie Sahazizian
Bartien Sayogo
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Introduction

This introduction is not part of IEEE Std 1264™-2015, IEEE Guide for Animal Deterrents for Electric Power Supply Substations.

IEEE Std 1264™-1993(R2009) was revised by members of the IEEE Guide for Animal Deterrents for Electric Power Supply Substations Working Group and is under the sponsorship of the Transmission and Distribution Substations Operations Subcommittee of the Substations Committee of the IEEE Power and Energy Society.^{a, b} This guide provides guidance and information to substation engineers on the problems animals cause in electric power supply substations. Further, it recommends criteria for applying mitigation methods, documents survey-reported effectiveness of various methods and recommends factors for evaluating effectiveness of methods once they are applied.

Updates were made to several clauses to incorporate valuable industry feedback from members and balloters, in particular the clauses on line barriers and insulating coverings. The Working Group had originally planned to send out a new survey and incorporate updated findings in this revision, yet resources to accomplish this were not available.

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1. Overview

This guide is divided into seven clauses. Clause 1 provides the purpose and scope of this guide. Clause 2 lists references to other standards. Clause 3 provides definitions of terms that are used in the guide, but are listed here as a quick reference. Clause 4 discusses the various types of animals and the problems they may cause. Clause 5 recommends criteria for implementing a mitigation program. Clause 6 explains different mitigation methods. Clause 7 describes the effectiveness of the various mitigation methods.

1.1 Scope

This guide documents methods and designs to mitigate interruptions, equipment damage, and personnel safety issues resulting from animal intrusions into electric power supply substations, thereby improving reliability and safety, and minimizing the associated revenue loss

1.2 Purpose

Intrusion by animals into electric power supply substations has been a problem experienced by most of the electric utility industry. The costs associated with outages caused by animals continue to escalate. Although animal problems differ in nature geographically, the damage to equipment, interruption of or loss of service to customers, and safety problems encountered by operating personnel result in the same general concerns.