IEEE Guide for Electric Power Substation Physical and Electronic Security

Sponsor

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Abstract: Security issues related to human intrusion upon electric power supply substations are identified and discussed. Various methods and techniques presently being used to mitigate human intrusions are also presented in this guide.
Keywords: construction, intrusion, operation, safety

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Introduction

(This introduction is not part of IEEE Std 1402-2000, IEEE Guide for Electric Power Substation Physical and Electronic Security.)

This guide was revised by members of Working Group G3/Substation Security and is under the sponsorship of the Substations Environmental Subcommittee of the IEEE Power Engineering Society Substations Committee.

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IEEE Guide for Electric Power Substation Physical and Electronic Security

1. Overview

1.1 Scope

This guide identifies and discusses security issues related to human intervention during the construction, operation (except for natural disasters), and maintenance of electric power supply substations. It also documents methods and designs to mitigate intrusions.

1.2 Purpose

Access to electric supply substations by unauthorized personnel is an increasing problem for the electric industry. These intrusions may result in loss, damage, and misoperation of equipment and facilities and may create potential safety and environmental liabilities.

This guide presents various methods and techniques presently being used to mitigate human intrusions, as identified in an industry survey.

In 1994, an IEEE Substation Security Guide Survey questionnaire was sent to utilities internationally; the responses from this survey are presented in Clause 7 of this guide.

Refer to IEEE Std 1264-1993[1] for methods being used to counteract nonhuman intrusions.

2. References

This guide shall be used in conjunction with the following publications:

Accredited Standards Committee C2-1997, National Electrical Safety Code®(NESC®).[2]

[1]Information on references can be found in Clause 2.

[2]The NESC is available from the Institute of Electrical and Electronics Engineers, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331, USA (http://standards.ieee.org/).

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