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Perimeter protection — Performance classification methodology

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National foreword

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A list of organizations represented on this committee can be obtained on request to its secretary.

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Foreword

This document (CEN/TR 16705:2014) has been prepared by Technical Committee CEN/TC 388 “Perimeter protection”, the secretariat of which is held by NEN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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0 Introduction

0.1 Purpose

The increasing need for customers to be able to select and purchase perimeter protection solutions that fit their needs calls for a generic and structured approach to the assessment of risks, to the identification of functional requirements, to the classification of perimeter protection solutions, including organizational measures, and to the design and test criteria for such perimeter protection solutions. This Technical Report is a step in the development of that approach.

The general goal that has been set is to make a European Standard that is applicable to a wide range of perimeter protection solutions, covering the needs for basic barriers and entrance solutions to more complex, high security solutions.

This Technical Report firstly describes the conceptual basis for further development of security performance requirements, technical specifications and test methods for use in perimeter protection systems in a European context. The report focusses on the performance classification methodology for the identification of the desired systems performance.

Secondly this Technical Report presents the results of inventories that have been made on current systems and (generic type) products that are available to the design engineer in both the public and private sector, relevant member states regulations, relevant documents from CEN, CEN/TC 325, ISO and other sources. The results are presented in annexes to this report.

This Technical Report therefore aims at providing information to be used for the design of future activities for making the 'perimeter protection standard'. It is not intended as a guidance for the actual development of perimeter protection systems. Nonetheless the information in this report may function as an aid to practitioners in their choice of appropriate measures in order to meet the diverse requirements.

0.2 Approach

Perimeter protection projects call for the interaction between suppliers of perimeter protection solutions, their customers and other relevant stakeholders. Only the proper interaction between these parties will lead to valid analyses and a certified perimeter protection solution.

A sequence of steps leading to the risk assessment, requested level of protection, functional requirements and basic selection of perimeter protection solution is proposed. The choice of the measure(s) to be taken depends upon a number of factors which include but are not restricted to: the local environment, the purpose of the measure(s), type property to be protected and environmental and organizational factors.

Perimeter protection systems or components may be used independently such as a perimeter fence or in combination with other measures in order to provide a more holistic solution such as a fence and gate. This approach may be extended to include Closed-Circuit TV systems (CCTV) and Perimeter Intruder Devices (PID).

To determine the risk involved for a site requiring perimeter protection is, for the most part, comparable to the analysis required for any given asset. Therefore this Technical Report builds on the work done for risk analysis by CEN/TC 325 'Crime prevention through building, facility and area design'.

0.3 Vital infrastructure

It is recognized that with regard to vital infrastructure and very high risk objects, the generic approach indicated in this Technical Report may not suffice and additional checklists and risk assessment tools may be required. There will be particular threats and modus operandi that should be considered when assessing vital infrastructure and very high risk objects that are outside the scope of this TR. For this reference can be made to documents from national authorities, etc.

1 Scope

This Technical Report aims at providing information to be used for the design of the future activities for making a 'perimeter protection standard'.

This CEN Technical Report describes a performance classification methodology for the identification of the desired systems performance for perimeter protection systems. It also gives a conceptual framework for matching the desired performance and the capabilities of a possible solution.

Furthermore this CEN Technical Report presents the results of inventories that have been made on current systems and (generic type) products, relevant member states regulations, relevant documents from CEN, CEN/TC 325, ISO and other sources. It should be noted that these inventories cannot be considered complete and any values given should be considered indicative values.

The following subjects are not covered by this Technical Report:

- threats approaching from the sea side;
- threats approaching through the air.

It is recognized that with regard to vital infrastructure and very high risk objects the generic system approach indicated in this Technical Report may not suffice and additional checklists and risk assessment tools may be required.

2 Normative references

Not applicable.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

NOTE The terms have been divided into three main perimeter related security categories: General, Electronic Security and Physical Security. The definitions are taken from existing documents as much as possible. Important sources are EN 14383-1:2006 [1], the term and definition standard from CEN/TC 325 "Crime prevention through building, facility and area design", and the Centre for Applied Science and Technology (CAST) [2].

3.1 General.

3.1.1
access control
set of techniques, means or procedures to control the passage of people and vehicles into and out of protected areas

[SOURCE: EN 14383-1:2006]

Note 1 to entry: Such systems allow levels of access rights and optionally the traceability of access, ranging from no entry to free traffic. The access control can be mechanical, human, electronic or a combination of these systems.

3.1.2
burglary
action of breaking into any premises with the purpose of theft

[SOURCE: EN 14383-1: 2006, modified]