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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 31540.1-2015

**Fire safety engineering guide -- Part 1: Application of fire
performance concepts to design objectives**

消防安全工程指南 第1部分：性能化在设计中的应用

(English Translation)

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Foreword

GB/T 31540 "Fire Safety Engineering Guidelines" consists of the following components.

- Part 1. Performance-based design application;
- Part 2. fire, smoke generation and development;
- Part 3. Structural Response and indoor fires spread outside;
- Part 4. detection, and fire started;

This section GB/T Part of 131,540.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This part redrafted law revision using ISO/T R13387-1.1999 "Fire Safety Engineering Guide Part 1. Performance of the Design ", A is listed in this section reg number and ISO/T R13387-1 Appendix.1999 reg control list numbered. this Part of ISO 23932:2009 technical differences exist in comparison, are given in Appendix B of this part of ISO/T R13387-1.1999's Technical differences and the reasons for a standard user reference list.

This section also made the following editorial changes.

- Deleted international standards foreword, preface redrafted;
- Modify the introduction of international standards, as a part of this introduction;
- International standards "this International Standard" be replaced by "GB/T 31540 this

part" or "this part";

--- The International Standard some punctuation modified to comply with Chinese habit of punctuation;

--- Increase the informative Appendix A and Appendix B.

This section presents the People's Republic of China Ministry of Public Security.

This part of the National Standardization Technical Committee on Fire Building Fire Safety Engineering at the Technical Committee (SAC/TC113/SC13) Centralized.

This section is responsible for drafting unit. Ministry of Public Security of Sichuan Fire Research Institute.

This section involved in the drafting unit. Southwest Jiaotong University.

Introduction

Fire safety engineering approach considers the overall building fire safety goals, made more economical and reasonable fire safety design, it can be used for partial or overall performance evaluation of fire safety of buildings.

This section presents the basic principles and overall performance-based design analysis and evaluation of the overall method of application processes, etc. are given Programmatic introduction, is a technical guidance document on the concept of performance-based fire safety design of specific applications. This section helps Regulation Fan fire safety engineering approach specific application in building fire protection design to ensure that all the basic requirements and job content are fully test Volume, designed to quantify acceptable way satisfied.

Professional and technical personnel in this section for use in fire safety engineering, including architectural design, use and management, fire supervision department Professional and technical personnel as well as technical writers specification fire. Users should understand the basis of the standard fire substantive content of the performance-based design on the analytical method fully understand the meaning of this section given application conditions and related parameters.

Fire Safety Engineering Guidelines Part 1. Performance in Its Design

1 Scope

GB/T 31540 as the basis for this part of the guidance document establishes the general method of performance-based design and evaluation.

This section applies to all kinds of new, changed, performance-based design and evaluation of the expansion project. Fireproof design for conveyances can refer to Using the method

described in this section.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 3101 general principles relating to amounts, units and symbols (GB 3101-1993, eqv ISO 31-0:1992) GB 3102.4 thermal quantity and unit (GB 3102.4-1993, eqv ISO 31-4:1992) GB/T 5907 (all parts) Fire Vocabulary GB/T 31540.2 Fire Safety Engineering Guidelines - Part 2. fire, smoke generation and development (GB/T 31540.2-2015, ISO/T R13387-4:1999, MOD) GB/T 31540.3 Fire Safety Engineering Guidelines - Part 3. External structure in response to the spread of fires and indoor (GB/T 31540.3-2015, ISO/T R13387-6:1999, MOD) GB/T 31540.4 Fire Safety Engineering Guidelines - Part 4. Detection, and start extinguishing (GB/T 31540.4-2015, ISO/TR 13387-7:1999, MOD) GB/T 31592 Fire Safety Engineering General (GB/T 31592-2015, ISO 23932:2009, MOD) GB/T 31593.2 Fire safety engineering - Part 2. Type the required data and information GB/T 31593.3 Fire safety engineering - Part 3. Fire Risk Assessment Guidelines (GB/T 31593.3-2015, ISO/TR 16732:2005, MOD) GB/T 31593.4 Fire safety engineering - Part 4. Setting fire scenarios and select the setting fires (GB/T 31593.4-2015, ISO 16733:2006, MOD) GB/T 31593.9 Fire safety engineering - Part 9. Evacuation Evaluation Guide (GB/T 31593.9-2015, ISO/TR 16738:2009, MOD) ISO/T R13387-5:1999 Fire safety engineering - Part 5. Fire product movement (Firesafetyengineering-Part 5. Movementoffireeffluents)

3 Terms and Definitions

GB/T 5907 and GB/T 31592 and defined by the following terms and definitions apply to this document.

Given design parameters prescribed design parameter Do not need to estimate parameters or data conversion can be obtained directly, used to describe the building, inside storage, use of personnel and the environment.