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

GB/T 31593.9-2015

**Fire safety engineering -- Part 9: Guidance on evaluation of
behaviour and movement of people**

消防安全工程 第9部分：人员疏散评估指南

(English Translation)

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This section in Appendix A (informative) reg number and ISO/T R16738.2009 Number of control clauses

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Foreword

GB/T 31593 "Fire Safety Engineering" is divided into nine sections.

--- Part 1. Calculation of the assessment, verification and validation;

--- Part 2. Type the required data and information;

- Part 3. Fire Risk Assessment Guidelines;
- Part 4. Setting fire scene and setting selection fire;
- Part 5. Calculation of fire plume requirements;
- Part 6. Calculation of the smoke layer requirements;
- Part 7. Calculation ceiling jet requirements;
- Part 8. Calculation of the opening airflow requirements;
- Part 9. Evacuation Evaluation Guide.

This section GB/T Part of 931,593.

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

This section uses redrafted law revision using ISO/T R16738.2009 "Fire Safety Engineering evacuation behavior assessment methods Technical Information".

This part of ISO/T R16738. in 2009, compared with more structural adjustment, are listed in Appendix A of this section and ISO/T R16738. reg number control list 2009.

This part of ISO/T R16738.2009 technical differences and their reasons are as follows.

- Normative references have been adjusted technical differences, in order to adapt to China's technical conditions, is the use of specific adjustments GB/T 5907 (all parts) in place of the ISO 13943 (see Chapter 3);
 - To facilitate the user's understanding, Chapter 3, to increase the "detection time" term and to define it (see 3.17);
 - In order to facilitate understanding of the user, increasing the evacuation evaluation process diagram (see Figure 1);
 - In order to facilitate users to more clearly understand the evacuation evaluate the relationship among the parameters, delete the ISO/T R16738. in 2009 1, according to China's actual redraw the evacuation process diagram (see Figure 2);
 - In order to facilitate users to understand and meet the reality of our country, an increase of about evacuation time and the start time of the terms of representation (See 5.7.5).
- 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 of the "Technical Report" be replaced by "GB/T 31593 this part" or "this part";
 - Will be some form of international standards in accordance with our method expressed

in units of the requirements of conversion; for ease of use on the part of the table the multi-line data into a single row table format;

- Certain units of international standards in accordance with the requirements of transformation (such as "person/s/m", "human/m/s" into "People/(m · s)", etc.);
- Certain punctuation modified to comply with international standards of the Chinese habit of punctuation;
- Increase the informative Appendix A, and Appendix international standards informative A ~ Appendix I to Appendix B ~ sequentially adjusted to Appendix J;
- Fixed international standard table E.2 of editorial errors.

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 drafted by. Ministry of Public Security in Tianjin Fire Research Institute, China Academy of Building Research, Ministry of Public Security of Sichuan Fire Research Institute, China Science Technical University.

Introduction

GB/T 31593 into this Part performance-based design and evaluation work to assess and quantify security personnel on aspects of life Computing provides guidance and necessary information. Assessment is primarily aimed at building evacuation behavior or structure fire situation, particularly Smoke and heat generated by the fire on the competence of personnel evacuation impact.

This section need to work together with GB/T 31593 of the other part. These files are useful for the safety analysis and evaluation, at the same time Also helps to make life safety assessments and fire engineering design to obtain a better combination.

This section for professionals engaged in fire safety engineering design personnel including fire, fire rescue personnel, fire standards Makers, insurers, fire safety officers, standard user needs to fully understand the calculation method contained in this section are given in the relevant parameters Meaning and application conditions.

Fire Safety Engineering Part 9. Evacuation Evaluation Guide

1 Scope

GB/T 31593 provisions of this part of the behavior of personnel under fire situation, in particular to assess emergency evacuation behavior, quantification and management side Law proposed constitute the basis for assessing the safety of personnel evacuation design

parameters provided in the building to determine the position and status of personnel changes over time required Process, evaluation and computing information.

This section of fire safety engineering design personnel, management personnel and technical personnel to provide fire safety fire safety engineering design related Engineering methods evacuation strategies and life safety assessment guidelines for fire safety engineering assessment of evacuation.

Person referred to in this section do not include the use of elevator evacuation of personnel emergency evacuation.

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/T 5907 (all parts) Fire Vocabulary

3 Terms and Definitions

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

Design evacuation scenario designbehaviouralsenario Personnel characteristics, qualitative description of the built environment and building systems, as well as fire dynamics, and for identifying the impact of evacuation behavior and sparsely Critical time factor scattered.

Evacuation routes escaperoute Staff from one o'clock to evacuate any building to a final exit or other place of safety required for the path.

Required evacuation time [requiredsafe] escapetime from fire to the building to reach a place of safety for all personnel time.

Exit exit

Or door opening into a relatively safe place.

By the time flowtime People of a particular outlet in the room or building, or the time required by a series of export.

Safety margin marginofsafety Taking into account the uncertainties or statistical distribution of design parameters on design performance, additional design or performance requirements of the calculated values