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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 44011.1-2024

Technical specification for comprehensive risk assessment of natural disasters - Part 1: Buildings

自然灾害综合风险评估技术规范 第1部分：房屋建筑

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Foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting: This document is part 1 of GB/T 44011 "Technical Specification for Comprehensive Risk Assessment of Natural Disasters": GB/T 44011 has been published The following parts:

--- Part 1: Building construction: Please note that some of the contents of this document may involve patents: The issuing organization of this document does not assume the responsibility for identifying patents: This document is proposed by the Ministry of Emergency Management of the People's Republic of China: This document is under the jurisdiction of the National Technical Committee on Standardization of Emergency Management and Disaster Reduction and Relief (SAC/TC307): This document was drafted by: Beijing Normal University, China Academy of Building Research Co:, Ltd:, University of Science and Technology Beijing, Beijing University of Civil Engineering and Architecture, Tsinghua University University of Science and Technology, China National Institute of Standardization: The main drafters of this document are: Liu Kai, Wang Ming, Shi Tiehua, Zhu Lixin, Xu Zhen, Cheng Qingle, Lu Xinzheng, Wang Qianzhi, Zhou Huazhen, Yang Saini, Xu Wei and Zhang Chao:

my country is one of the countries with the most serious natural disasters in the world, with many types of disasters, wide distribution, high frequency and great losses: The modernization of China's natural disaster prevention and control system and prevention and control capabilities should focus on prevention and control, and combine prevention, resistance and rescue: Objectively assessing the comprehensive risk level of natural disasters is the key to preventing and mitigating disasters: GB/T 44011 is intended to standardize the normative assessment of comprehensive natural disaster risks applicable

to administrative regions at all levels: It consists of five parts:

--- Part 1: Building construction:

--- Part 2: Highways:

--- Part 3: Population:

--- Part 4: Economy:

--- Part 5: Crops: The safety of housing construction is directly related to the safety of people's lives and property: Scientifically assess the comprehensive risk of natural disasters faced by housing construction, It is of great significance to prevent and resolve the risk of natural disasters in housing construction from the source: Comprehensive risk assessment work can effectively play the supporting role of natural disaster risk assessment in building safety: This document proposes for the first time a regional multi-hazard comprehensive risk assessment process and technical approach based on the single-hazard risk assessment results of housing buildings: This method will help improve the scientificity and standardization of comprehensive risk assessment of natural disasters in my country's housing construction, and provide a basis for the formulation of regional natural disaster risk assessment: Provide support for disaster mitigation plans and rational allocation of disaster reduction resources: Technical Specifications for Comprehensive Risk Assessment of Natural Disasters Part 1: Building construction

1 Scope

GB/T 44011.1-2024 is Part 1 of the Chinese series on comprehensive natural disaster risk assessment, and covers buildings. It rests on the first national natural disaster risk survey, which catalogued the country's building stock at a level of detail no country had attempted before, and the point of the assessment is to turn that inventory into an expected loss: which buildings, in which places, would fail under which hazard, and what that means for the people in them. The standard sets the general principles of objectivity, feasibility and dynamism, the basic requirements of the assessment including the object, the content and the basic assessment unit, the assessment process, the data preparation and the assessment methods, and the preparation of the assessment report, with informative annexes giving the data preparation checklist and the structure of the report. It took effect on 1 November 2024.

This document establishes the general principles and assessment process for comprehensive natural disaster risk assessment of buildings and structures, and describes the data preparation and assessment methods: The law stipulates the basic requirements for evaluation and the requirements for the preparation of evaluation reports: This document is applicable to the comprehensive natural disaster risk assessment of housing buildings in administrative areas at or above the county level: This document can be used as a reference for conducting comprehensive risk assessment of natural disasters in buildings

and structures:

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document: For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document: GB/T 24438:

3 Terms and definitions

The following terms and definitions apply to this document: 3:

1 Hazard Abnormal factors in a disaster-prone environment may cause casualties, property losses, resource and environmental damage, and social system chaos: [Source: YJ/T 13-2011, 3:5] 3:

2 Exposure Objects that suffer from disasters:

Note: In this document, disaster-bearing objects refer to buildings that are subject to disasters: [Source: YJ/T 13-2011, 3:6] 3:

3 Vulnerability The extent of loss caused by potential hazards to the hazard-bearing body (3:2): 3:

4 Building A place built at a fixed location to provide shelter and coverage for users or occupants and to carry out living and production activities: 3:

5 The sum of natural disaster risks to buildings caused by multiple natural hazards (3:1):