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

GB/T 44843-2024

**Specifications for safety estimation of existing escalators and
moving walks**

在用自动扶梯和自动人行道安全评估规范

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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. 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 and coordinated by the National Elevator Standardization Technical Committee (SAC/TC196). This document was drafted by: Shanghai Special Equipment Supervision and Inspection Technology Research Institute, Suzhou Jiangnan Jiajie Elevator Co., Ltd., Shanghai Mitsubishi Electric Elevator Co., Ltd., Otis Elevator (China) Investment Co., Ltd., Hitachi Elevator (Guangzhou) Escalator Co., Ltd., Anhui Special Equipment Inspection Co., Ltd. China Academy of Building Research Co., Ltd., Building Mechanization Research Institute, KONE Elevator Co., Ltd., Schindler (China) Elevator Co., Ltd. Chongqing Special Equipment Testing and Research Institute, Henan Special Equipment Inspection and Research Institute, Guangxi Zhuang Autonomous Region Special Equipment Inspection and Research Institute, Jiangsu Special Equipment Safety Supervision and Inspection Institute, Guangdong Special Equipment Inspection and Research Institute, Guizhou Special Equipment Inspection and Testing Institute, Shenzhen Shenzhen Quality and Safety Inspection and Testing Institute, Hangzhou Special Equipment Inspection and Testing Institute, Fujian Special Equipment Inspection and Testing Institute, Jianyan Machinery Inspection and Testing Institute Inspection and Testing (Beijing) Co., Ltd., Beijing Special Equipment Inspection and Testing Institute, Hunan Special Equipment Inspection and Testing Institute, Toshiba Elevator (China) Co., Ltd., Tisheng Elevator (China) Co., Ltd., Kangli Elevator Co., Ltd., Changshu Institute of Technology, Shenlong Elevator Co., Ltd. Company, Shanghai Aidenburg Elevator Group Co., Ltd., Xiji Schindler Elevator Co., Ltd., Otis Electromechanical Elevator Co., Ltd., Senhe Elevator Co., Ltd., Shanghai Step Electric Co., Ltd., Shenyang Special Equipment Testing and Research Institute, Henan Zhongheyi Testing Technology Co., Ltd. Company, Tai'an Quality and Technical Inspection and Testing Institute, Xizi Elevator Technology Co., Ltd., Yongda Elevator Equipment (China) Co., Ltd., Guangzhou Guangri Elevator Industry Co., Ltd., Xingling Elevator (China) Co., Ltd., Suxun Elevator Co., Ltd., Kuaiyi Elevator Co., Ltd., Ningxia Special Equipment Inspection and Testing Institute, Beijing China Railway Installation Engineering Co., Ltd. The main drafters of this document are. Shu Wenhua, Ouyang Huiqing, Zhang Zhiyan, Xi Weiqi, Xu Kaisheng, Liang Jiasheng, Xu Lin, Chen Fengwang, Jiang Jiesong, Huang Yongsheng, Zou Tongfeng, Yang Leijing, Luo Zhen, Li Gongning, Ren Xin, Guo Xiaodong, Zhan Wei, Li Dongyang, Zhang Chong, Li Xinlong, Xia Lirong, Luo Dan, Wu Xin, Wang Hongwei, Xu Bin, Zhang Fusheng, Tang Zhirong, Cai Fujun, Zhao Yancheng, Wen Aimin, Li Ren, Lu Hao, Huang Yu, Zhou Jian, Chen Xiaowei, Li Jia, Xue Jihua, Shi Danchao, Zhang Jianyu, Ni Pengfei, Long Yongzhi, Yao Guolong, and Li Lei.

0.1 This document uses the method given in GB/T 20900-2007 to analyze the escalator or moving walk equipment and building related A risk assessment is conducted on the project, and on this basis, a safety assessment method and procedure for escalators or moving walks in use are given.

0.2 When conducting risk level assessment on the escalator or moving walkway equipment

and building-related projects, the evaluation content and requirements Based on the latest current technical standards and engineering experience, we aim to meet the basic safety requirements of escalators or moving walkways. Through gradual updating, transformation and repair, the latest safety technology level can be achieved as much as possible.

0.3 Based on the conclusion of the safety assessment and in combination with their own economic conditions, users can take protective measures to eliminate the Prioritize projects to eliminate or reduce risks, and gradually eliminate or reduce related risks in order of priority.

0.4 In order to ensure that the results of risk assessments conducted by different assessment agencies and assessors for specific risk scenarios are as consistent as possible, Appendix A and Appendix B provide the risk assessment reference values for the equipment body and building-related assessment items respectively. When determining the risk level and risk category of a specific assessment project, the method given in

4.5 of GB/T 20900-2007 can also be used, and the risk level and risk category of the specific assessment project can be determined. Consider factors such as the technical standards used when the equipment is manufactured and installed, the actual safety conditions, and the operating environment. Specification for safety assessment of escalators and moving walks in use

1 Scope

GB/T 44843-2024 is the Chinese specification for assessing the safety of escalators and moving walks already in service. China has installed escalators in enormous numbers over three decades, and a large share of them now predate the safety requirements that current standards impose, particularly on the step and skirt gaps, the comb and step deflection devices, the balustrade and handrail entry, the braking and the missing step detection. Replacing all of them is not possible; establishing which of them present an unacceptable risk is, and this document is the instrument for doing so. It sets the requirements on the assessment body, its basic qualification, personnel, instruments and quality system; then the assessment procedure; then the preliminary work, determining the scope of the assessment and establishing the assessment team; and then the assessment itself, the data review, the site inspection, the measurements and functional tests, the evaluation of each hazard against the criteria given, the risk rating and the conclusion, together with the report and the recommendations for remedial measures. It took effect on 26 October 2024.

This document specifies the requirements for the assessment agencies of escalators and moving walkways in use, the safety assessment procedures (including preliminary preparation, risk assessment, Determination of comprehensive safety status level, measures to reduce risks), basic requirements for assessment reports. This document applies to the safety assessment of escalators and moving walks in use. NOTE. In special cases (e.g. when operating in open air or in a potentially explosive atmosphere or when

used as an emergency exit), in addition to the requirements of this document, it may be necessary to consider Additional requirements for the relevant

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 5226.1-2019 Electrical safety of machinery - Electrical equipment of machinery - Part

3 Terms and Definitions

GB/T 7024, GB 16899-2011, GB/T 20900-2007 and GB/T 30692-2014 and the following terms and Definitions apply to this document.

3.1 Escalators or moving walkways already in use. [Source: GB/T 30692-2014, 3.2]

3.2 Equipment body equipmentbody Electromechanical components of escalators or moving walkways that are related to the safe operation of escalators or moving walkways and the personal safety of related personnel.

3.3 building-related The space dimensions related to the buildings adjacent to the equipment body that affect the safe operation of escalators or moving walkways and the personal safety of related personnel Factors such as size, protective measures, and ambient lighting.