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

GB/T 45229-2025

Requirements for safety of theatre process

剧场工艺安全要求

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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 by the Ministry of Culture and Tourism of the People's Republic of China. This document is under the jurisdiction of the National Theatre Standardization Technical Committee (SAC/TC388). This document was drafted by: China Art and Technology Research Institute, National Grand Theater, Beijing Beite Shengdi Technology Development Co., Ltd., Zhejiang Dafeng Co., Ltd., Poly (Beijing) Theater Construction Engineering Consulting Co., Ltd., Beijing Jindong Hi-Tech Technology Co., Ltd., Kunke Theater Engineering Consulting (Beijing) Co., Ltd., China Performing Arts Industry Association, and China Art Quality Inspection (Beijing) Cultural Tourism Development Co., Ltd. The main drafters of this document are. Zheng Hui, Jin Zhishun, Wang Tao, Yan Xianliang, Yan Changqing, Wu Sheng, Xu Qi, Li Guoqi, Guan Jianbo, Rong Zhixiao, Gong Kuicheng, Han Jinze, Chen Yi, Sun Tao, Yao Rui, Jin Xiao, Jin Jiantao, Gao Jingdong, Zhang Xiangyong,

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Theaters are public buildings with relatively complex craftsmanship among public cultural facilities. With the vigorous development of theater construction in my country in recent years, the scale of theater construction has expanded day by day. The scope of theater technology is expanding day by day. With the advancement of technology, the content involved in theater technology is becoming more and more complicated. Theater safety issues occur from time to time. In order to clarify the basic safety design requirements of theater technology and strengthen the key prevention of possible risks and hidden dangers, this document. Theater technology is a professional requirement for performance venues based on the laws and development trends of stage performance art, which is closely related to theater architecture, structure, construction, etc. This document focuses on the safety of theater technology, from ensuring the smooth performance of production safety to protecting the performance staff.

Occupational safety of life and property, quality safety to protect the consumer rights of the audience, and public safety to avoid accidents in public places such as theaters.

Standardize theater buildings, structures, facilities and equipment, and professional stage equipment to reduce and eliminate safety hazards and avoid safety accidents. It not only provides students with a good understanding of the theatre, but also provides reference for theatre design and construction, and at the same time provides technical support for the guidance, supervision and orderly management of relevant competent departments.

Theatre Technology Safety Requirements

1 Scope

GB/T 45229-2025 sets the safety requirements for theatre stage technology in China. A modern theatre is an unusual industrial environment: heavy loads are flown above people's heads on motorised hoists, stage lifts and revolves move with performers on them, pyrotechnics and hazers are used deliberately, and the whole is operated at speed in darkness by a crew working to a cue sheet rather than a permit system. The standard sets the general requirements and then the basic safety requirements of theatre technology, covering the performance technology systems and their process safety: the flying and rigging system with its load limits, redundancy, overload and slack-line protection, the stage machinery, lifts, wagons and revolves with their guarding, limits and emergency stops, the stage lighting and power distribution, the audio and video systems, the safety curtain and smoke control, the scenery and its fire performance, the special effects, and the control system with its interlocks, its access rights and its emergency stop hierarchy. It then covers the operation, inspection and maintenance arrangements that keep those provisions effective. It takes effect on 1 May 2025.

This document specifies the general, basic and technical requirements for theatre process safety. This document applies to the theater feasibility study, planning, design, construction

and acceptance processes.

Note. Theater construction includes new construction, reconstruction or expansion.

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 36726 Rigid fireproof curtains for stage machinery

GB/T 36727 Standard for acceptance and testing of stage machinery

GB/T 36729 Performance Safety

GB/T 45001 Occupational health and safety management system requirements and usage guidelines

GB 50009 Code for Loads on Building Structures JGJ

57 Theater Building Design Code WH/T

28 Safety of stage machinery and equipment WH/T

31 Common terms in stage lighting design WH/T

35 Terminology of stage machinery WH/T

36 Safety requirements for stage machinery and equipment WH/T

57 Technical terms for performance venue equipment Sound system WH/T

59 Technical terminology for performance venue equipment - Theatre WH/T

78.1 Performance safety Part

3 Terms and definitions

GB/T 45001, JGJ57, GB/T 36729, WH/T 31, WH/T 35, WH/T 57, WH/T 59 and WH/T

78.1 The following terms and definitions apply to this document.

3.1 Theatertheatre A performance building with an auditorium, stage, technical rooms, and rooms for actors and audiences.

4 Stage Sound Safety WH/T

78.5 Performance Safety Part

5 Stage Video Safety WH/T

78.7 Performance Safety Part

7 Stage Wire Safety WH/T

78.8 Performance safety Part

8 Stage management and communication safety WH/T

78.9 Performance safety Part