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

WH/T 78.3-2018

**Performance safety. Part 3: Stage lighting safety
(English Translation)**

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Foreword

WH/T 78 "Safety of Performance" plans to release the following 10 parts.

- Part 1. General rules for performance safety technology;
- Part 2. Safety of the stage machinery;
- Part 3. Stage lighting safety;
- Part 4. Stage sound security;
- Part 5. Stage video security;
- Part 6. The beauty of the beauty equipment;
- Part 7. Stage Wia Security;
- Part 8. Stage supervision and communication security;
- Part 9. Safety of the stage curtain;
- Part 10. Theater process safety.

This part is the third part of WH/T 78.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

Introduction

In recent years, with the vigorous development of China's theater construction and performance industry, we are engaged in stage lighting design, equipment manufacturing, and equipment integration engineering.

The professional team of installation, performance operation and equipment maintenance has increased rapidly, the stage lighting industry has developed rapidly, and the application of stage lighting has become increasingly widespread. versus at the same time, the potential safety risks and risks of stage lighting are increasing, and vicious accidents begin

to appear.

Due to defects in lighting equipment quality, lighting system design, construction, performance management, equipment maintenance, etc., control system and equipment work Unstable phenomena occur frequently. Such as. due to the lighting system has no standard safety grounding and leakage protection measures, the quality of the lighting power supply connector Damaged or unqualified, electrical pipeline leakage, at the same time, lack of safety monitoring measures and awareness, accidents such as electric shocks. Due to the lighting system Unstable, light source and other key components are unstable in quality and operational errors, and the lighting design effect is not met during the performance.

It often appears, directly affecting the quality of the performance.

Due to the lack of perfect technical standards, management standards, and work standards, the rapid increase in stage lighting construction companies and equipment integration Business, theater management agencies, stage lighting operators have no quality management, capacity management, quality management, material management and safety management.

Zhang Kexuan is one of the main reasons for the frequent occurrence of stage lighting safety accidents in the performance industry. Stage lighting safety accidents have become a production Safety, performance occupational safety and quality hazards of performance. In order to protect the lives of the cast members and protect the cultural rights of the audience, to protect the safety of national property and the overall safety of the performance industry, special standards for stage lighting safety have been formulated.

This section aims to establish a "safety first, prevention-oriented" concept for stage lighting equipment, lighting systems, operators, theaters and stages.

Key objects such as lighting technology management organization, standardizing technical requirements in terms of performance safety, performance safety, performance quality and safety Requirements, management practices and operating procedures, including the design, production, installation, operation and maintenance of lighting equipment and lighting systems involve lighting safety the requirements also include the safety requirements for the lighting design, installation, assembly, rehearsal, performance, and demolition of each performance.

Relevant regulations for professional technicians and professional designers involved in equipment manufacturing, system installation, maintenance, and operation related to lighting safety, such as Calculate requirements, management requirements, operational requirements, etc., to prevent, reduce and eliminate accidents and avoid common safety accidents.

This part puts forward the relevant requirements for the safety management of the industry

in terms of the general problems in the whole stage of the stage lighting safety industry, such as practicing Provide technical support for the guidance, supervision and orderly management of relevant competent authorities. At the same time, guide builders and designers and dramas Field operation managers and stage staff enhance safety awareness and prevention awareness, and promote relevant organizations to establish equipment inspection systems and periodic inspections.

Plan and measure to minimize risk.

This part puts forward the safety requirements from three aspects of technology, management and work on the common triggering factors of safety accidents. Technical requirements the lighting system and equipment are divided into two categories. "system security" and "equipment safety"; the management standards are mainly for the organization;

The standard is primarily for the operator.

The establishment of lighting safety standards will help prevent accidents during production and production, and cause damage to stage lighting equipment.

Harm, ensure the safety and health of the personnel in the performance workplace, ensure the audience to watch the rights and interests, and promote the healthy and orderly development of the performance industry. At the same time, once in the event of an accident, safety standards also provide a basis for determining liability accidents. This section needs to be used in conjunction with other performance safety related standards. temporary the special requirements for stage lighting safety for setting up the stage are stipulated in the Temporary Construction of Stages and Stand Safety.

This section is essential for the design, production, installation, operation,, maintenance and dismantling of stage lighting equipment, but this Some safety requirements are not a substitute for other safety work such as safety education, preventive measures, and industry safety regulations.

If any parts of this part need to be revised and supplemented during the implementation process, please send your comments and relevant materials to the China Academy of Arts and Technology.

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Performance safety

Part 3. Stage Lighting Safety

1 Scope

This part of WH/T 78 specifies the classification, technical requirements, management specifications and operating procedures for stage lighting.

This section applies to the design, production, installation, integration, operation and maintenance of stage lighting equipment and control systems for performances.

The process of lighting design, installation, rehearsal, performance, demolition and other activities during the performance process, including design of lighting products and system design Metering, effect design, etc.

Other places where stage lighting equipment and control systems are used can be referred to.

The environmental conditions applicable to this section shall comply with the requirements of Appendix A.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB 7000.1-2015 lamps - Part 1. General requirements and tests GB 7000.217-2008 Part 2-17. Special requirements for stage lighting, television, film and photography (indoor and outdoor) Lamp GB 8624-2012 Classification of combustion properties of building materials and products GB/T 12357.1-2015 Multimode optical fibres for communication - Part 1 GB 17625.1-2012 Electromagnetic compatibility limit harmonic current emission limit (device input current per phase $\leq 16A$) GB/T 17743-2007 Limits and methods of measurement of radio disturbance characteristics for electrical lighting and similar equipment GB/T 18595 General lighting equipment electromagnetic compatibility immunity requirements GB/T 28001-2011 Occupational Health and Safety Management System Requirements YD/T 926.2-2009 Building communication cabling system - Part 2. Technical requirements for cables and cables WH/T 41-2011 General technical conditions for stage lighting

3 Terms and definitions

The following terms and definitions apply to this document.

Stage lighting process design Electrical calculations for the stage performance and effects in the theater construction, number of dimming cabinets/straight-through circuits, lamp positions, special performance configurations Confirmation of the number, specifications, parameters, performance and position of various lamps.