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

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**Ships and marine technology - Testing specification for
handrails using electrical resistance trace heating**

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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 equivalent to ISO 22419:2019 "Test Requirements for Electric Heating Handrails of Ships and Offshore Technology":

Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents:

1 Scope

This document specifies the test methods for the anti-freezing performance of electrically heated handrails installed in open spaces in low temperature environments, including Requirements for facilities, test conditions, test samples, test procedures and test reports:

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document:

IEC /IEEE60079-30-1 Explosive gases Part 30-1: General rules and test requirements for resistance wire heating (Explosiveat-

IEC /IEEE60079-30-2 Explosive gases Part 30-2: Application guidelines for resistance wire

heating design, installation and maintenance (Ex-

3 Terms and Definitions

The following terms and definitions apply to this document:

3:1

heated handrail heated handrail

Handrails heated by electric heating devices to avoid slipping and falling accidents:

3:2

Anti-icing anti-icing

Protect protected surfaces from freezing:

3:3

Ambient temperature ambient temperature

Atmospheric temperature in the test room:

4 Structure and materials

Handrails should be designed and manufactured with suitable materials according to the use occasions, and at least the following requirements should be met:

- a) The material selection and size of parts should ensure sufficient rigidity and stability;
- b) all parts shall be resistant to environmental damage (e.g: weather, chemicals, corrosive gases), for example, by using corrosion-resistant materials or having appropriate proper coating protection;
- c) Heated handrails installed in hazardous areas and with electric heat tracing devices shall meet the requirements of IEC /IEEE60079-30-1 and IEC /IEEE60079-30-2

requirements:

Note: The material can be selected according to the statutory requirements of the local competent authority or competent authority and/or the requirements of the International Association of Classification Societies (IACS):