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

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**Performance and testing requirements of maritime survivor
locating devices
(English Translation)**

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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 modified to adopt IEC 63269:2022 "Maritime navigation radio communication equipment system personnel search and rescue beacon (personnel overboard equipment)" Minimum Requirements, Test Methods and Required Test Results.

This document has made the following structural adjustments compared to IEC 63269:2022.

---4.2~4.11 corresponds to 4.1~4.10 of IEC 63269:2022, with 4.1 added;

--- 5.1~5.3 correspond to 5.2~5.4 of IEC 63269:2022, and 5.1 of IEC 63269:2022 is deleted;

---6.1~6.3 correspond to 6.2~6.4 of IEC 63269:2022, and 6.1 of IEC 63269:2022 is deleted;

---Added Chapter 7.

The technical differences between this document and IEC 63269:2022 and their reasons are as follows.

--- Deleted the description of the relationship between IEC 63269:2022 and other international standards in "Scope", and added the description of BeiDou-3 regional short-distance Description of the technical requirements of the message communication function module and the scope of application of the standard (see Chapter 1) to unify the content of the document;

--- Added the terms and definitions of "test mode", "pulse transmitter", "self-organizing time division multiple access" and "regional short message communication" (see 3.1.2, 3.1.4, 3.1.6, 3.1.7) to supplement the definitions of technical contents in this document; delete the terms "fresh water", "activation", "floating rope", "closed the terms and definitions of "loop", "default value", "GNSS data" and "symbol" (see 3.1 of IEC 63269:2022) are common the term has no specific meaning in this document, so it is deleted to make the document more concise;

--- Added "Maritime Autonomous Radio Equipment", "Beidou Satellite Navigation System", "International Maritime Radio Committee", and "Time Division Multiple Access" Abbreviations such as "United Nations" (see 3.2) to make the document consistent;

--- Added the content of "General Requirements" in Chapter 4 (see 4.1) to make the document clearer;

--- Added the requirements for "Beidou-3 regional short message" in the indicator (see

4.2.3) to unify the context of the document;

--- Added requirements for light source flashing frequency and light duration (see 4.4) to ensure the visual effect of search and rescue light sources;

--- Changed the requirements for battery operating time and battery life (see 4.6), and changed the related test methods (see 4.11.1.3, 4.11.1.4.2, 4.11.2.7.1, 4.11.2.7.2, 5.3.2.3.2 and 6.3.2.3.2), so that the document complies with the requirements of my country's marine search and rescue work the actual needs of the work;

--- Added the requirement of "internal positioning source should be compatible with BDS" (see 4.7) to make the document suitable for my country's national conditions;

--- Changed the concentration expression of "sodium iodide", "sodium chloride" and "saline solution" (see 4.11.2.1.4.1, 4.11.2.1.5.1) to comply with the concentration of solution.

The habit of expressing liquid concentration;

--- Changed the description of the "floating characteristics" test result requirements (see 4.11.2.4.3) to make the document easier to understand;

--- Added specific data of the default values of "turn rate" and "true heading" in "Message Content No. 1" in the activation mode (see 5.3.3.2.4), Make the technical requirements of the document more explicit;

--- Changed the requirements of "Schedule for the transmission of message No. 14", in which the requirement for the transmission of message No. 14 when the time slot timeout value is 0 was deleted the transmission requirements (see 5.3.3.2.8) have been specified in the previous text. In the activation mode, message No. 14 is only transmitted when the timeout value is 7 and 3;

--- Changed the expression of the relevant parameters of "resolution bandwidth for emission test" (see 6.3.1.7), making the parameter requirements more Clarify to improve the readability of the document;

--- Added the provision that "the position timestamp should be set to 8888" when the GNSS receiver cannot provide valid positioning (see 6.2.5), so that the technical requirements of the document are more clearly defined;

--- Changed the definition of DSC modulation rate (see 6.3.2.8.1) to make it consistent with the general definition of modulation rate and keep the document consistent with the previous definition.

The following text is consistent;

--- Changed the calculation formula of "Frequency of special concern outside the required frequency range" (see 6.3.3.6.3) to make it consistent with the corresponding test method the description of the legal content is consistent to eliminate ambiguity;

- Changed the relevant technical indicators of "DSC receiver spurious response suppression test results" (see 6.3.3.6.8), and revised the original standard Wrong parameters;
- Changed the communication test method and test result requirements, deleted the description of "closed-loop operation" (see 6.4), adapted to my country the working mode of the DSC device requires;
- Added relevant content about "Beidou-3 regional short message communication function module" (see Chapter 7) to make the document suitable for my country National conditions.

The following editorial changes were made to this document.

- In order to coordinate with the existing standards, the name of the standard is changed to "Performance and Test Requirements for Personnel Search and Rescue";
 - Deleted the related expressions about "Module A", "Module B" and "Module C" in the chapter titles, and the chapter titles are directly described with specific functional contents.
- Line description (see Chapter 4, Chapter 5, and Chapter 6 of IEC 63269:2022);
- Deleted "(see 4.10.2.1.1)" and "(see 4.10.2.1.3)" and other expressions that do not clearly indicate specific reference content (see 4.1.1 to 4.1.6, 4.2 to 4.9, 4.10.2.1.1 to 4.10.2.1.7 and 4.10.2.2 to 4.10.2.12 of IEC 63269:2022);
 - Changed the status column number of the device "indicator" when it is in self-test mode (see 4.2.3);
 - Deleted the footnote on "Manufacturer ID" (see 4.2 of IEC 63269:2022);
 - Changed the item level of the "Warning Statement" in the "Instructions" of the equipment (see 4.10);
 - Changed the expression of Figure 1 (see 4.11.1.2);
 - Changed the description of transmitter operation mode, transmitter transient response test method, and DSC receiver adjacent channel selectivity test method the method uses the list form to make the expression clearer and more explicit to improve the readability of the document (see 4.11.1.9, 6.3.2.5.2, 6.3.3.3.2);
 - Deleted the overview of AIS functional module and DSC functional module (see 5.1 and 6.1 of IEC 63269:2022);
 - Changed the expression of Table 7 and Table 12 (see 5.2.2.2.3 and 6.2.2.2);
 - Changed the expression of the calculation formula and parameter description of the difference between normal and extreme conditions of the DSC transmitter (see 6.3.2.2.3);
 - Added explanations of the meanings of letter symbols in formula (7), formula (8) and formula (9) (see 6.3.3.6.3).