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

GB 4696-2016

Replacing GB 4696-1999

Maritime buoyage system, China

中国海区水上助航标志

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Foreword

All technical contents of this standard is mandatory. This standard was drafted in accordance with rules GB/T 1.1-2009 given. This standard replaces GB 4696-1999 "China Sea maritime aids to navigation", compared with GB 4696-1999, the main technical change as follows:

- special signs increased lamp type and quality requirements (see 8.3,
 - Added "emergency wreck EPIRB" (see 9.3);
 - increased use of sequential sync flash or flash conditions and requirements (see 10.2);
 - adds features similar aids to navigation AIS aids to navigation and display characteristics consistent with its labeling requirements (see 10.3);
 - increased requirements when using water instead of fixing flag buoy function (see 10.4).
- This standard is proposed and managed by the People's Republic of China Ministry of Transport. This standard is mainly drafted by: Ministry of Transport Maritime Bureau, Tianjin Maritime Bureau, Shanghai Maritime Bureau, the Guangdong Maritime Bureau, Hainan Maritime Safety Administration. The main drafters. Zng Hui, Li Wenhua, Chai Jin column,

Yang Li, Teng had, Pan Chengwu, Fu Jun, Lang Rong Wei, Wei Zhijie. This standard supersedes the previous editions are.

--- GB 4696-1984, GB 4696-1999. China Sea maritime navigation aids

1 Scope

GB 4696-2016 is the Chinese national standard on maritime buoyage system, china, in the field of services and company organization. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 13 December 2016 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 July 2017. Classification: ICS 03.220.40, CCS R63. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the shape, color, light quality, marks China Sea water buoys and action are same fixing flag water buoys Provided with its requirements. This standard applies to transport, fisheries, scientific research, oil exploration, marine development and military departments in Chinese waters and its port, the sea estuary Water buoys and effect provided with the same fixing flag float in water. This standard does not apply to the lighthouse, the light sector beacons, pilot scale, light vessels and large buoys aids.

2 Normative references

The following documents for the application of this document is essential. For dated references, only applies to the version dated paper Pieces. For undated references, the latest edition (including any amendments) applies to this document.

GB 12708 beacon signal light color

GB 16161 Chinese sea water navigation aids prescribed shape display

GB 17381 Chinese sea surface color visual aids to navigation regulations GB/T 17765 beacon term

3 Terms and Definitions

GB/T 17765 defines the following terms and definitions apply to this document. For ease of use, it is listed in the following repeating Certain terms and definitions GB/T 17765 in.

3.1 Waterway to conventionaldirectionofbuoyage According to the ship to determine the left and right side of the fairway in the coastal, estuarine waterways navigation, buoy system

that is accustomed to. Which provides as follows:

- a) approaching from the sea or in port, estuary, harbor orientation or other waterways;
- b) refers to a clockwise direction around the continent to navigate the waterway between the open sea, the Channel Islands or the principle;
- c) in a complex environment, waterway management authority to the provisions of the aids to navigation, and use the "" marked on the chart. [GB/T 17765-1999, defined 3.2.7]

3.2 Sea left channel, right portsideofachannel, starboardsideofachannel Sailing ship along the channel to which the left channel port side, the starboard side is the right channel. [GB/T 17765-1999, defined 3.2.17]

3.3 Fixed water sign offshorefixedmark Punctuation is located in the local average elevation climax tide below the surface, mark the base or standard part of the body submerged average surface tide climax Libiao water, lights pile navigational aids.

3.4 Buoy shape buoyshape Shape characteristics observed when the water above the waterline buoy from any body parts as presented in the horizontal direction. [GB/T 17765-1999, defined 3.1.17]

3.5 Top Mark topmark At the top of the water navigational aids, one or both of a certain size and a certain shape and color of the flag. [GB/T 17765-1999, defined 4.8.6]

3.6 New hazards newdanger Has not been published in navigation data newly discovered hazards such as shoals, reefs and other natural or hinders navigation objects such as shipwrecks, sediments and other man-made crises Dangerous substance. NOTE. rewriting GB/T 17765-1999, defined 3.1.20.

3.7 Entity AIS aids to navigation realAISAtN AIS disposed on beacons (AIS) apparatus.

3.8 AIS virtual aids to navigation virtualAISAtN No. 21 VAtN information packets broadcast by the base station via AIS.

4 Side logo

4.1 features and classification Channel side flag in accordance with the cloth to, for indicating the boundaries on both sides of the channel; recommended or designated channel; may also be designated a particular channel. Side marked Chi include the left channel marked, labeled and recommend the right side of the left fairway mark right mark.

4.2 Channel standard left and right standard

4.2.1 Channel left superscript and subscript are provided on the right and the left of the right channel, the left channel and right boundaries marked. Along the waterway to travel Standard ship left and right channel should be placed in the vessel marked by the port and

starboard. As shown in Figure 1. FIG 1 marked left channel, the right subscript Wherein the subject left and right standard

4.2.2 Channel shall be as specified in Table 1. Table

1 Channel standard left and right target feature Wherein the left channel right channel superscript subscript Color Red Green Pot shape, with the top, or the subject of a cylindrical or rod-shaped conical, or subject with a cylindrical or rod-shaped top Topmark single pot single red green cone, cone tip upwards Light Quality Red, single flash, 4s green cycle, single flash cycle 4s Red, biphenyl blinks twice, 6s green period, biphenyl blinks twice, cycle 6s Red, with flashes three times, cycle 10s green, with flashes three times, cycle 10s Red light, green light continuous flash, continuous flash

4.3 Standard recommended fairway on the left and right standard

4.3.1 The recommended standard channel on the left and right side of the fairway marked the establishment of the branch office can also be set at a particular channel, the ship sailed along the fairway recommended Airlines Channel standard recommended label left channel or specific channel on the right side; the right channel standard recommended label recommended channel or specific channel on its left side, as 2 shown in FIG. FIG 2 standard recommended left channel, the right subscript

4.3.2 The recommended standard channel on the left and right sides of the subject should meet the characteristics specified in Table 2. TABLE

2 Recommended Standard left and right channel wherein the subject Wherein the left channel Recommended Standard Recommended Standard right channel Red color, a green intermediate cross-wide band green, a red wide intermediate rail Shape of the pot-shaped; the top target with a cylindrical or cone-shaped rod; subject with a cylindrical or rod-shaped top Topmark single pot single red green cone, cone tip upwards TABLE 2 (cont.) Wherein the left channel Recommended Standard Recommended Standard right channel Light Quality Red, plus a mix with blinks twice, green 6s cycle, plus one blinks twice with mixing cycle 6s Red, plus a mix with blinks twice, green 9s cycle, plus one blinks twice with mixing cycle 9s Red, plus a mix with blinks twice, green cycle 12s, mixed with blinks twice plus one cycle 12s

5.1 azimuth mark in a dangerous or hazardous area as the center of the north, in the east, south, west four quadrants, ie true bearing northwest - northeast Northeast - Southeast, southeast - southwest and northwest - southwest, and the corresponding quadrant named as the landmark north, the east-bit standard, the standard position south, west-bit standard, respectively Marked on one side with the same name as the subject of navigable waters. Orientation marker may be provided on the turn fairway, branched or shallow junction terminal. Marking a north-north

5.2 dangerous or hazardous areas, the ship should be present in the subject by the north;