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

GB/T 14092.4-2025

Replacing GB/T 14092.4-2009

Environmental condition for machinery products - Part 4: Ocean

机械产品环境条件 第4部分：海洋

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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 Part 4 of GB/T 14092 Environmental conditions for mechanical products. GB/T 14092 has been published in the following parts.

3. High altitude;

---Industrial corrosion;

---Dry heat. This document replaces GB/T 14092.4-2009 "Environmental conditions for mechanical products" and is different from GB/T 14092.4-2009 except for the conclusion. In addition to structural adjustments and editorial changes, the main technical changes are as follows:

a) The content of the chapter "General Requirements" has been changed, and the chapter title has been changed to "Environmental Conditions" (see Chapter 4, Chapter 3 of the 2009 edition);

b) The contents of "climatic environmental conditions", "chemically active substance conditions", "mechanical environmental conditions" and "biological conditions" have been changed, with new The new level replaces the old classification (see 5.1, 5.3,

5.4 and 5.5, 4.1, 4.2,

4.6 of the.2009 edition);

c) Added the content of "special climatic and environmental conditions" (see Section 5.2);

d) The content of "Conditions for mechanically active substances" has been deleted (see 4.4 of the.2009 edition). 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 and coordinated by the National Technical Committee for Standardization of Environmental Conditions and Environmental Testing for Electrical and Electronic Products (SAC/TC8). This document was drafted by: State Grid Fujian Electric Power Co., Ltd., China Electric Power Research Institute Co., Ltd., Sun Yat-sen University, Shanghai Measurement Design and Research Institute Co., Ltd., Shenzhen Inspection Group (Dongguan) Quality Technology Service Co., Ltd., Wuhan University, Yunnan Electric Power Test Institute (Group Group) Co., Ltd., Yunda Energy Technology Group Co., Ltd., Aerospace Science and Industry Defense Technology Research and Experimental Center, Tsinghua University Shenzhen International Research Institute Graduate School, China Special Aircraft Research Institute, Mingyang Smart Energy Group Co., Ltd., Xichang Satellite Launch Center, Weikai (Foshan) Testing Technology Ltd. The main drafters of this document are. Xia Xiaojian, Wang Jun, Shi Yu, Fan Shuangshuang, Ling Jianan, Zhu Jianhua, Lu Hailiang, Liu Xin, Sun Weizhong, Zhou Weida, Yan Kanghua, Zhao Pengfei, Wang Xilin, He Weiping, Zhu Chen, Wei Yufeng, Wang Honglun, Ren Jing, Sai Juncong, Wan Chao, Che Hansheng, and Tang Xuan. The previous versions of this document and the documents it replaces are as follows:

--- First published as GB/T 14092.4-1993 in.1993, first revised in.2009;

---This is the second revision.

1 Scope

GB/T 14092.4-2025 is the Chinese national standard on environmental condition for machinery products - part 4: ocean, in the field of testing. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 1 August 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 February 2026. Classification: ICS 19.020, CCS A21. 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 document specifies the marine environmental parameters and their severity levels for mechanical products in the four major sea areas of Bohai Sea, Yellow Sea, East China Sea

and South China Sea. This document is applicable to mechanical products for offshore fixed and mobile facilities when formulating environmental condition standards for products used outdoors and underwater at sea. On time, select environmental parameters and severity levels.

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/T 4798.10 Introduction to environmental conditions for application of electrical and electronic products

3 Terms and Definitions

There are no terms or definitions that require definition in this document.

4 Environmental conditions

Marine environmental conditions are composed of climatic environmental conditions (K), special climatic environmental conditions (Z), chemically active substances (C), mechanical environmental conditions (M), Biological environmental conditions (B) and hydrological conditions (H) are described in different levels. Environmental condition classification allows for a variety of possible combinations of environmental conditions, which can truly reflect the impact of environmental conditions on the product usage process. According to GB/T 4798.10, the environmental condition levels are identified by the following.

---Letters, climate and environmental conditions (K), special climate and environmental conditions (Z), chemically active substances (C), mechanical environmental conditions (M), biological Environmental conditions (B) and hydrological conditions (H);

---Numbers. The numbers after K, Z, B, and H indicate the sea areas. 1, 2, 3, and 4 correspond to the Bohai Sea, the Yellow Sea, the East China Sea, and the South China Sea respectively; the numbers after C and M indicate the sea areas. The number indicates the severity level, and the larger the number, the more severe the conditions. Example. Level K3, where K represents climate and environmental conditions, and 3 represents the East China Sea.

5 Severity levels of various environmental conditions

5.1 Climate and environmental conditions (K) The levels of climatic and environmental

conditions are shown in Table 1. K

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