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

GB/T 13951-2016

Replacing GB/T 13951-1992

**General rule of environmental tests of electric and electronic
products for mobile platforms and offshore installations**

移动式平台及海上设施用电工电子产品环境试验一般要求

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Quarantine of the People's Republic of China;
Standardization Administration of China**

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 13951-1992 "General requirements for environmental testing of electrical and electronic products for mobile platforms and marine installations", and GB/T 13951-1992 compared to the main technical changes are as follows:

--- adjust the normative reference file; - replace "GB 2421 Chapter 5" in Chapter 3 with "GB/T 2421.1"; The "temperature change test method with the specified temperature change rate" in Table 3 and the "temperature change test with the specified conversion time Method "to" change the temperature of the specified change rate "and" specify the transition time of the rapid temperature change ";

4.5.2 use of places and harsh levels of content in tabular form;

--- Table 6, Table 9, Table 12, Table 14, Table 16;

--- Added Table 10, Table 11;

--- change the "sulfur dioxide gas concentration grade 3" in

4.11 to "the concentration of sulfur dioxide gas concentration is 0.67% 40 ° C) ";

--- delete the 4.14 "a = 400/m" formula related content. This standard is proposed by the National Electrical and Electronic Products Environmental Standards and Environmental Testing Standardization Technical Committee (SAC/TC8). The drafting of this standard. China Electrical Appliances Research Institute Co., Ltd., Beijing University of Science and Technology, Suzhou Su test equipment Co., Ltd., Guangzhou Institute of Standardization, Wuxi Sunan Experimental Equipment Co., Ltd., CNOOC Tianjin Research and Design Institute. The main drafters of this standard. Huang Kaiyun, Li Xiaogang, Xu Liyi, Jie dare new, Liu Xin, Wang Jun, Feng Wenxi, Ni Yiming, Guo Zhijia, Wu Junsheng, Gao Jin. This standard replaced the previous version of the standard release.

--- GB/T 13951-1992. Mobile platform and marine facilities with electrical and electronic products Environmental testing general requirements

1 Scope

GB/T 13951-2016 is the Chinese national standard on general rule of environmental tests of electric and electronic products for mobile platforms and offshore installations, 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 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 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 standard specifies the electrical and electronic products installed on different platforms of mobile platforms and offshore facilities (hereinafter referred to as "platforms"). Conduct environmental test items, test methods and harsh grades. This standard applies to the platform of electrical and electronic products in the development of technical conditions, the environmental test items, test methods and harsh rating of the election set. Which the relevant test rules and assessment indicators in the product technical conditions. The general requirements for environmental testing of electrical and electronic products for single point mooring installations and offshore floating installations may refer to this standard.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document.

GB/T 2421.1 Environmental and Environmental Testing of Electrical and Electronic Products

GB/T 2423.1 Environmental testing for electric and electronic products - Part 2. Test methods - Test A. Low temperature

GB/T 2423.2 Environmental testing for electric and electronic products - Part 2. Test methods - Test B. High temperature

GB/T 2423.3 Environmental testing - Part 2. Test methods - Test Cab. constant damp heat test

GB/T 2423.4 Environmental testing for electric and electronic products - Part 2. Test methods - Test Db. alternating hot and humid (12h 12h cycle)

GB/T 2423.5 Environmental testing for electric and electronic products - Part 2. Test methods - Test Ea and Guidance. Impact

GB/T 2423.6 Environmental testing for electric and electronic products - Part 2. Test methods - Test Eb and guidance. Collisions

GB/T 2423.10 Environmental testing for electric and electronic products - Part 2. Test methods - Test Fc. Vibration (sinusoidal)

GB/T 2423.16 Environmental testing for electric and electronic products - Part 2. Test methods - Test J and Guideline.

GB/T 2423.17 Environmental testing for electric and electronic products - Part 2. Test methods Test Ka. Salt mist

GB/T 2423.18 Environmental tests - Part 2. Test methods Test Kb. Salt mist, alternating (sodium chloride solution)

GB/T 2423.22 Environmental tests - Part 2. Test methods - Test N. Temperature change

GB/T 2423.24 Environmental tests - Part 2. Test methods - Test Sa. Simulated solar radiation on ground and its test guidelines

3 Overview

For the same test sample in need of two or more environmental test items, the general should be in accordance with the requirements of GB/T 2421.1 arrangements Test sequence. Explosion-proof performance tests shall be carried out on samples of other environmental test items. Such as the GB 3836 series of standards If the test is specified in this standard, it shall be carried out in a more stringent manner.