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

GB/T 5169.44-2022

Replacing GB/T 5169.44-2013

**Fire hazard testing for electric and electronic products - Part 44:
Guidance for assessing the fire hazard - Fire hazard
assessment**

(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 of Standardization Documents" drafted.

This document is part 44 of Fire Hazard Testing of Electrical and Electronic Products. "Fire Hazard Test of Electrical and Electronic Products" has been published

See in part in Appendix NA.

This document replaces GB/T 5169.44-2013 "Fire Hazard Test for Electrical and Electronic Products - Part 44. Guide for Fire Hazard Assessment

Compared with GB/T 5169.44-2013, in addition to structural adjustment and editorial changes, the main technical changes are as follows.

--- Added the term and definition of "finished product" (see 3.7);

--- Added Figure 5 to illustrate the scope and use of the product (see Figure 5).

This document is equivalent to IEC 60695-1-11:2014 "Fire Hazard Test Part 1-11. Electrical Products Fire Hazard Assessment Guide"

Fire Hazard Assessment".

The following minimal editorial changes have been made to this document.

--- In order to be consistent with the existing standard series, the name is changed to "Fire Hazard Test for Electrical and Electronic Products Part 44. Fire Hazard Assessment

Guidelines for Fire Hazard Assessment";

--- Move the IEC Guide 104, GB/T 5169.2-2013, IEC 60695-1-12 referenced for information from Chapter 2 to Reference

literature;

--- Add informative appendix NA to list the published parts of "Fire Hazard Test for Electrical and Electronic Products".

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

All electrical and electronic products are designed with fire risk and potential fire hazard in mind. Design of components, circuits and components

And materials are screened to reduce the potential fire risk to a tolerable level even in the event of foreseeable misuse, failure and failure.

within the range. The purpose of the Fire Hazard Test for Electrical and Electronic Products is to save lives by reducing the number or severity of fires

life and protection of property. It can be done by.

--- Prevent ignition caused by live parts as much as possible, and if ignition occurs, limit the scope of ignition to the enclosure of electrical and electronic products;

--- Minimize the spread of flames outside the product enclosure, and the presence of combustion products that will include heat, smoke, toxic or corrosive gases, etc.

Harmful impact is minimized.

"Fire Hazard Test of Electrical and Electronic Products" now consists of 38 parts, which are divided into three sub-fields.

--- Fire hazard test evaluation guidelines and terminology standards, including 1 term and 8 evaluation guidelines, the purpose is for the professional field

provide guidelines and reference procedures for fire hazard assessment;

--- Small-scale fire test standards, including 4 basic test methods for glow wire/hot wire, 9 flame test methods, and 2 abnormal resistance

The purpose of this paper is to introduce the method of thermal capability test, which is suitable for the use of electrical and electronic equipment manufacturers and testing institutions, with a specific heat source model.

Small-scale test methods for heat sources intended to cause fires;

--- Risk assessment criteria for combustion flow, including 2 corrosiveness, 2 smoke haze, 5 toxicity, 3 heat release, 2 flame surface

Spread, the purpose is to provide measurement of combustion flow toxicity, corrosiveness, smoke haze and heat release of electrical and electronic products and their materials

Guidelines and the state of the art in current test methods.

The purpose of this document is to give guidelines for fire hazard assessment and the development of fire hazard test methods for direct hazards to people, animals and property.

set guidelines. Fire hazard assessment is used to identify the type of product fire event (fire situation), and to determine the measurable fire performance and such events.

the extent to which the results of the fire are correlated, and the test methods and methods appropriate to determine the performance that will lead to acceptable fire results or completely eliminate the fire event.

operational requirements.

Fire hazard test for electrical and electronic products

Part 44.Guidelines for fire hazard assessment

Fire Hazard Assessment

1 Scope

This document specifies the fire hazard assessment guidelines for electrical and electronic products and the fire hazard test methods that have direct hazards to people, animals and property.

Guidelines for the formulation of the law.

This document outlines a hazard assessment procedure to identify appropriate fire test methods and operating criteria for products. The principle of the method is to identify and product-related fire events (fire situations), and to determine the extent to which measurable ignition properties correlate with the likelihood and outcome of such events, and

and to determine the test methods and operating requirements appropriate to the performance that will lead to acceptable fire results or completely eliminate fire events.

This document is intended for technical committees to prepare standards based on the principles set out in IEC Guide 104 and ISO /IEC Guide 51 [10]

use.

One of the tasks of technical committees is to use this series of standards wherever applicable when preparing standards in the field. unless relevant

Standard specifically mentioned or listed, the requirements of this document, test methods or test conditions will not apply.

2 Normative references

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

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 5169.1-2015 Fire hazard test for electrical and electronic products - Part

1.Terminology for fire test (IEC 60695-4:2012,

IDT)

ISO 13943:2008 Fire Safety Vocabulary (Firesafety-Vocabulary)

3 Terms and Definitions

The terms and definitions defined in GB/T 5169.1-2015 and ISO 13943:2008 and the following terms and definitions apply to this document.

3.1

asphyxiant

Toxic substances that cause hypoxia in human tissues and lead to weakening of the central nervous system or affecting the cardiovascular system.

NOTE: Can cause loss of consciousness and eventual death.

[Source: ISO 13943:2008, 4.17]

3.2

For an indoor person, the available escape time is between the ignition time and the estimated time when the indoor person is incapable of escape.

The inability of indoor personnel to escape means that they cannot take effective escape behavior and reach a safe shelter or other safe place.

Note 1 to entry. The light-off time may be known, for example, in certain fire models or fire tests; the time may also be assumed, for example, it may be based on

An estimate of the start of time. Basically, the determination of the light-off time is specified.

Note 2 to entry. This definition equates incapacity with failure to escape. Other ASET measures are also available. If other alternative criteria are chosen, clarification is necessary.

1) There is a new version of ISO 13943:2017.