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

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**Electricity metering equipment -- Dependability -- Part 11:  
General concepts**

电测量设备 可信性 第11部分：一般概念

**(English Translation)**

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## Foreword

GB/T 17215 in the "credibility of the electrical measuring equipment" to be covered by the following components.

--- Part 11. General concepts (IEC 62059-11);

--- Part 21. Field data collection instruments credibility (IEC 62059-21);

The first part --- 31-1. temperature and humidity accelerated reliability test (IEC 62059-31-1);

--- Part 32-1. accelerated endurance test (IEC 62059-32-1);

--- Part 41. Reliability prediction (IEC 62059-41);

--- Part 51. Software dependability (IEC 62059-51).

This is Part 11.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the translation method is equivalent to using IEC/T R62059-11.2002 "credibility electrical measuring equipment - Part 11. General Overview Read "(in English).

For ease of use, this section made the following editorial changes.

a) instead of as a decimal by decimal comma " , " , " ;

b) "IEC 62059 Part of this" word, the words "this section";

c) modify the terms 3.14 English "meantimebetweenfailures"

d) Remove the IEC/T R62059-11.2002 Foreword;

e) Added Appendix NA. GB/T 17215 series of standards numbering naming and description.

Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents.

This part is proposed by China Machinery Industry Federation.

This part of the National Electrical Instrument Standardization Technical Committee (SAC/TC104) centralized.

The drafting of this section. Harbin Electrical Instrument Research Institute, Chongqing Electric Power Test & Research Institute, North China Electric Power Research Institute, Jiangsu Provincial Institute of Metrology, Shanghai EF Electronics Technology Co., Ltd., Shenzhen Clou Electronics Technology Co., Ltd. Holley Metering Co., Ltd., Hangzhou PAX Electronic Technology Co., Ltd., Xi'an flags Electronics Co., Ltd. Wei Sheng Group Co., Ltd., Chint Instrument Limited liability company, Ningbo Sanxing Electric Co., Ltd., Jiangsu Caio million Hong Electronics Co., Ltd., Shenzhen Aerospace Electronics Co., Terry, Czech Republic the company.

## Introduction

Currently in the world, the use of electrical measuring equipment from electromechanical to static transition, in this new measurement technology is required to make Reliability with the latest research results. When it is desired measuring equipment unattended in the long run the state, the reliability is especially important.

More than a century of experience in the development and manufacture of electromechanical meters and still not be fully applicable to the instrument, because it presents a two designs Different failure modes.

It is for this reason, the National Electrical Instrument Standardization Technical Committee has set up a working group to study currently available the applicability of the standard static electrical measurement equipment credibility. A more important reason for this decision is that the current type of identification and verification Income verification test procedure does not apply to static electric measuring device to determine the performance indicators, designed to stop the use of the entire life cycle reliability.

The work plan includes the credibility of the management of field failure data collection and analysis, reliability testing, and failure rate prediction software Credibility problems.

Any device's credibility depends on many factors, such as its functionality, complexity, design, manufacturing process, failure criteria, working conditions, so with time, installation

and maintenance procedures. Some of these factors are controlled by the manufacturer, while others are equipment operators and users responsibility any. For this reason, there is no specific definition of reliability and availability requirements, these requirements should be left between the involved parties Consultations.

Electrical measuring equipment credibility Part 11. General concepts

## 1 Scope

This section GB/T 17215 regulations for electrical measurement and control static load measuring device (hereinafter referred to as measuring device) Trusted General problem in nature, and includes the role of the credibility of the parties involved in the management.

This section applies to the whole product life cycle within a method of information.

## 2 Normative references

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

GB/T 2900.13-2008 Electrotechnical terminology credibility and quality of service (IEC 60050 (191).1990, Amend.1.1999 AndAmend.2.2002, IDT) IEC 60300-3-2:1993 Dependability management - Part 3. Application guide - Section 2. Trusted data collection site (Depend-abilitymanagement-Part 3. Applicationguide-Section2. Colectionofdependabilitydatafromthe field) IEC/T R62051.1999 Electricity metering glossary (Electricitymetering.Glossaryofterms) IEC 62059-21 Part 21 electrical measuring devices credibility. the credibility of the field instrument data collection (Electricity meteringequipment-Dependability-Part 21. Colectionofmeterdependabilitydatafromthefield)

## 3 Terms and Definitions

GB/T 2900.13-2008 and IEC/T R62051.1999 as defined in the following terms and definitions apply to this document.

Availability in external resources have the required prerequisite products in the given conditions and at a given time or time interval is able to fulfill the request Ability functional status.

[IEV-191-02-05]

Category

Having the same properties for a class or a set of objects.

Category classification Systematically into different categories; or according to one or more classification factors, the sample or product into different categories.

**Credibility dependability** A collective term used to denote the availability and its influencing factors. reliability, maintainability, supportability.

**Note:** only for the credibility of the non-quantitative terms of a general description.