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

GB/T 11604-2015

Replacing GB/T 11604-1989

**Testing procedure of radio interference generated by high
voltage equipment
(English Translation)**

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Foreword

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

This standard replaces GB/T 11604-1989 "high-voltage electrical equipment radio interference testing methods." This standard and GB/T 11604-Compared to 1989, in addition to editorial changes outside the main technical changes are as follows.

--- Radio interference voltage increases, the term describes the rated voltage;

--- Chapter reprogramming, and the techniques and the experimental loop have clearly described in more detail;

--- State of the sample gives a clear definition of description (see 4.2);

- Test area gives specific requirements (see 4.3);
- On the atmospheric conditions of temperature, pressure and humidity range be revised, given the high altitude of the altitude correction requirements (see 4.4);
- The reference test frequency recommended values \u200b\u200bgiven in our laboratory 1MHz (see 4.5);
- Increased content measuring instruments (see 4.6);
- Radio interference AC electrical test equipment in the circuit layout, installation and test validation checking arrangement, loop, loop calibrator, Additional monitoring period and so give a detailed description (see Chapter 5);
- Increasing the DC electrical equipment radio interference test content (see Chapter 6);
- Increase A "standard CISPR quasi-peak measuring instrument for receiving AC corona noise response" Appendix informative;
- Increase the informative Appendix B "differs from the basic standard instrument CISPR radio interference measuring apparatus";
- Increase the informative appendix C "DC radio interference phenomenon described." this standard uses the redrafted law revision using IEC/T RCISPR18-2.2010 Radio interference "of overhead lines and high-voltage equipment Characteristics - Part 2. Measurement methods and procedures to determine the limits. " The Standard and IEC/T RCISPR18-2.2010 and technical differences the following reasons.
- Reference of this standard IEC/T RCISPR18-2. Section 20104.5 "radio interference measuring laboratory of high voltage equipment" content Modify other sections not involved;
- Radio interference voltage increases, the term describes the rated voltage;
- On the atmospheric conditions of temperature, pressure and humidity range be revised, given the high altitude of the altitude correction requirements (see 4.4);
- The reference test frequency recommended values \u200b\u200bgiven in our laboratory 1MHz (see 4.5);
- Increasing the DC electrical equipment radio interference test content (see Chapter 6).

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.

The standard proposed by China Electrical Equipment Industrial Association.

This standard by the national high voltage test and insulation technology with Standardization Technical Committee (SAC/TC163).

This standard was drafted. Xi'an High Voltage Apparatus Research Institute Co., Ltd., China Electric Power Research Institute, the national high-voltage electrical quality monitoring Governor Inspection Center, the National Insulator arrester Quality Supervision and Inspection Center, Kunming Electric Apparatus Research Institute, the National Quality Supervision, Inspection Transformer Heart, high-voltage electrical machinery industry product quality inspection center (Shenyang), Tsinghua University, Xi'an Jiaotong University, Xi'an Electric Power System Co.

Division, Xi'an high-voltage electrical stock company, Xi'an Electric Transformer Co., Ltd., Xi'an Electric arrester Co., Ltd., New Northeast Electric (Shenyang) High Voltage Switchgear Co., Ltd. Henan high level of electrical, Guilin Power Capacitor Co., Ltd., Shaanxi Power Academy of Sciences, Hubei Electric Power Research Institute, Electric Power Research Institute of Jiangxi Province, Guangdong Electric Power Design Institute, China Southern Power Grid Technology Research Research Centre, Siemens (China) Co., Ltd. Shanghai Branch.

1 Scope

This standard specifies the high-voltage electrical equipment radio interference testing methods.

This standard applies in the laboratory of AC and DC high voltage electrical equipment (including attachments) radio interference test, the device comprising. a high pressure Switchgear, transformers, voltage divider, coupling capacitors, surge arresters, bushings, insulators and the like.

This standard specifies the test methods are applicable to type tests, routine tests, sampling tests and performance tests.

The standard test method is limited to measuring the test circuit conductive portion of the test radio interference regulations, which do not involve radiation section Interference.

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 311.1-2012 insulation coordination - Part 1. Definitions, principles and rules (IEC 60071-1:2006, MOD) GB/T 2900.19-1994 Electrotechnical term high voltage test technique and insulation coordination (neq IEC 60071-1.1993) GB/T 4365-2003 Electrotechnical terminology Electromagnetic Compatibility (idt IEC 60050 (161) 1990) GB/T 6113.101 radio disturbance and immunity measuring apparatus and methods - Part 1-1. Radio disturbance and anti-Interference measuring equipment measuring equipment (GB/T 6113.101-2008, CISPR16-1-1.2006, IDT) GB/T 16927.1 High-voltage test techniques - Part 1. General

definitions and test requirements (GB/T 16927.1-2011, IEC 60060-1:2010, MOD)
CISPR16-1-2 radio disturbance and immunity measuring apparatus and method - Part 1-2.
Radio disturbance and immunity measuring Instrument auxiliary equipment conducting
interference (Specification for radio disturbance and immunity measuring apparatus and
methods-Part 1-2.
Radio disturbance and immunity measuring apparatus-Ancillary equipment-Conducted disturbances)

3 Terms and Definitions

GB/T 4365-2003 and defined the following terms and definitions apply to this document.

Radio interference (high voltage electrical equipment) radio interference
(of high voltage equipment) Under normal operation of electrical equipment having a radio
frequency voltage generated by the electromagnetic interference components.

Note: This standard is a direct measurement device radio interference pulse current through an
electrical circuit coupling loops, and radio interference voltage to represent radio the level of
interference. Radio interference voltage in units of μV , can also be expressed in decibels, at this
time, $1\mu\text{V}$ to 0dB .

AC electrical equipment the maximum voltage
highest voltage for alternating current equipment U_m Valid values according to
equipment insulation and other features associated equipment standards associated design
phase maximum voltage. In normal Under operating conditions by the relevant provisions of
the Technical Committee, the voltage can be continuously applied to the device.