

ICS 33.100.20

CCS L 06



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

GB/Z 17799.6-2017

**Electromagnetic compatibility -- Generic standards -- Immunity
for power station and substation environments**

Issued on: July 12, 2017

Implemented on: February 1, 2018

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

Table of Contents

Foreword

1 Scope

2 Normative references

Foreword

The Common Criteria for Electromagnetic Compatibility now includes the following sections.

--- Common standard electromagnetic compatibility residential, commercial and light industrial environments immunity test;

--- EMC common standard industrial environment immunity test;

--- Electromagnetic compatibility common standard residential, commercial and light industrial environment in the launch;

--- EMC common standard industrial environment launch;

--- General electromagnetic compatibility standard indoor equipment high altitude electromagnetic pulse (HEMP) immunity;

--- EMC common standard power plant and substation environment immunity.

This section is "General Standard Electromagnetic Compatibility" Part 6, this section is the guiding technical documents.

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

This section uses the redrafted Law Reference IEC /T S61000-6-5.2001 "Electromagnetic Compatibility Part 6-5. General Standard Power Plant

And substation environment immunity "compilation, and IEC /T S61000-6-5.2001 consistency is not equivalent.

This part of the IEC /T S61000-6-5.2001 technical differences and the reasons are as follows.

--- Shell port immunity test items increased pulsed magnetic field and damping oscillation magnetic field immunity test; low-voltage AC input/output power

Source port immunity test adds low frequency immunity test of AC power port harmonics, inter-harmonics and power network signals. The above increase

Canada's projects are currently the actual electromagnetic compatibility pilot project.

--- Pulsed magnetic field and damped Oscillatory magnetic field immunity test level to take five, according to GB/T 17626.9 and GB/T 17626.10 Medium

Harsh industrial environment requirements; AC power port harmonics, inter-harmonics and power network signal low frequency immunity test level

Level 2, according to GB/T 17626.13 in the public connection point (PCC) and the internal connection point (IPC) requirements.

This section made the following editorial changes.

--- Remove the IEC /T S61000-6-5.2001 English original introduction and introduction;

--- Adjust the IEC /T S61000-6-5.2001 in the chart and table location.

This part of the National Electromagnetic Compatibility Standardization Technical Committee (SAC/TC246) and focal point.

This section drafted unit. China Electric Power Research Institute, North China Electric Power University, State Grid Electric Power Research Institute, Beijing Sifang Automation Automation

Co., Ltd., Schneider Electric China Limited.

1 Scope

This section applies to the power system power generation, transmission, distribution equipment and related communications systems with immunity requirements.

Suitable places for the power system installation of power plants and substations.

The immunity requirements given in this section apply to the electromagnetic phenomena of interest in the frequency range 0 Hz to 400 GHz. The tests involved

Methods, test equipment and configuration to GB/T 17626 as the basis.

The immunity requirements set forth in this standard apply to the specific needs of equipment and systems in implementing functions and fulfilling tasks to ensure that

The actual electromagnetic environment, reliable operation, and given different functions of immunity test performance evaluation basis.

This section gives different immunity test requirements for installation in power plants and substation equipment. Under special conditions, electromagnetic disturbance level

May exceed the immunity test specified in this standard level, then in this case should take appropriate mitigation measures.

High-voltage and high-power devices without electronic circuitry (primary system) are not covered by this standard.

This section does not address the safety requirements of the equipment, such as shock protection, insulation and pressure test conducted prior to the immunity test.

This section does not involve electromagnetic emission requirements. Electromagnetic emission requirements, please refer to other relevant standards (such as GB 7251.1, GB/T 18657.1

Wait). If there is no dedicated product and product class standard exists, the common standard is GB 17799.4.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 4365 Electrotechnical terminology Electromagnetic compatibility (GB/T 4365-2003, IEC 60050 (161) .1990, IDT)

GB/T 7251.1 Low-voltage switchgear and controlgear - Part 1. Type test and part type test equipment

(GB 7251.1-2005, IEC 61439-1.1999, IDT)

GB/T 17618 Information technology equipment immunity limits and measurement methods (GB/T 17618-2015, CISPR24.2010, IDT)

GB/T 17626.1 electromagnetic compatibility test and measurement techniques Immunity Test Summary (GB/T 17626.1-2006,

IEC 61000-4-1.2000, IDT)

GB/T 17626.2 Electromagnetic compatibility test and measurement techniques Electrostatic discharge immunity test (GB/T 17626.2-2006,

IEC 61000-4-2.2001, IDT)

GB/T 17626.3 Electromagnetic compatibility test and measurement techniques RF electromagnetic radiation immunity test (GB/T 17626.3-

2006, IEC 61000-4-3.2002, IDT)

GB/T 17626.4 Electromagnetic compatibility test and measurement techniques Electrical fast transient burst immunity test (GB/T 17626.4-

2008, IEC 61000-4-4.2004, IDT)

GB/T 17626.5 electromagnetic compatibility test and measurement technology surge

(impact) immunity test (GB/T 17626.5-2008,

IEC 61000-4-5.2005, IDT)

GB/T 17626.6 Electromagnetic compatibility-Testing and measurement techniques

Immunity to conducted disturbances induced by radio-frequency fields (GB/T 17626.6-

2008, IEC 61000-4-6.2006, IDT)

GB/T 17626.8 Electromagnetic compatibility test and measurement techniques Frequency
magnetic field immunity test (GB/T 17626.8-2006,

IEC 61000-4-8.2001, IDT)