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

GB/T 7352-2008

Replacing GB/T 7352-1987

**Electrical measuring systems and instruments utilizing ionizing
radiation source**

利用电离辐射源的电测量系统和仪表

(English Translation)

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Table of Contents

Preface	
1 Scope	
2 Normative references	
3 Terms and definitions	
3.1 Measurement System	
3.2 External measurement system related projects and the amount of	
4. Technical Requirements	
4.1 General requirements	
4.2 Special requirements	
5 Test methods	
5.1 General requirements	
5.2 Special requirements	
17 6 Inspection Rules	
6.1 Classification test	
6.2 Factory inspection	
17 6.3 Type inspection	
7 Signs, packaging, transportation and storage	
7.1 Marks	
7.2 Packaging	
7.3 Transport	
7.4 Storage	
Appendix A (informative) using ionizing radiation sources electrical measurement system's internal characteristics and external characteristics of	
1 Analog input step increment system diagram of a typical response time of	
3 Linearity Figure	

Foreword

This corresponds to the standard IEC 60476:1993 "Nuclear instruments utilizing ionizing radiation sources of electrical measuring instruments and systems General characteristics", and IEC 60476:1993 non-equivalent.

This standard replaces GB/T 7352-1987 "electrical measuring instruments utilizing radioactive sources." this standard and GB/T 7352-1987 the main differences are as

follows.

- Standard name changed to "the use of ionizing radiation sources of electrical measuring instruments and systems";
- Update and add normative references (see Chapter 2);
- According to IEC 60476 adds terms and definitions (see Chapter 3);
- Increasing the electromagnetic compatibility requirements (see 4.1.4.4);
- Added "Inspection Rules" chapter of the factory inspection and type inspection made in principle provides for the development of specific standard products mention for a basis (see Chapter 6);
- Added "signs, packaging, transport and storage" chapter, so that standard of structural integrity (see Chapter 7);
- Delete the original standard in Appendices A and B;
- Appendix A was placed IEC 60476:1993 Section 4.2 features.

Appendix A of this standard is an informative annex.

The standard proposed by China National Nuclear Corporation.

This standard by the National Nuclear Instrument Standardization Technical Committee (SAC/TC30) centralized.

This standard was drafted. Shanghai Industrial Automation Instrument Research Institute, Institute of Nuclear Industry Standardization, Shenzhen Academy of Metrology and Quality Inspection.

1 Scope

This standard specifies the use of ionizing radiation sources electrical measuring instruments and systems terminology, technical requirements, test methods, inspection rules, and standard Chi, packaging, transport and storage.

This standard applies to the use of ionizing radiation of electrical measuring instruments and systems, it can provide a basis for the development of the relevant product standard, but also as a system Factory made between the user guide and signed the agreement.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For

undated reference documents, the latest versions apply to this standard.

GB/T 191 Packaging - Pictorial signs (GB/T 191-2008, ISO 780:1997, MOD) GB 3836.1-2000 Electrical equipment for explosive gas atmospheres - Part 1. General requirements (eqv IEC 60079-0:1998) GB 3836.2-2000 Electrical apparatus for explosive gas atmospheres - Part 2. flameproof "d" (eqv IEC 60079-1:1990) GB 3836.4-2000 Electrical equipment for explosive gas atmospheres Part 4 by. Intrinsic safety "i" (eqv IEC 60079-11.

1999)

GB 4075-2003 Sealed radioactive sources - General requirements and classification (ISO 2919:1999, MOD) GB/T 8993-1998 nuclear instruments - Environmental conditions and testing procedures GB/T 10257-2001 nuclear instruments and nuclear radiation detectors Quality inspection rule GB/T 11684-2003 nuclear instrumentation and test methods for electromagnetic environmental conditions GB 11806 Regulations for the Safe Transport of Radioactive Substances (GB 11806-2004, IAEA No. TS-R-1.1996/2003, IDT) GB/T 15479-1995 industrial automation instruments of insulation resistance, dielectric strength technical requirements and test methods GB/T 17626 (all parts), electromagnetic compatibility test and measurement technology (idt IEC 61000-4) GB/T 18271.2-2000 Process measurement and control devices - General methods and procedures for evaluating performance - Part 2. under reference conditions Test (idt IEC 61298-2:1995) GB/T 18271.3-2000 Process measurement and control devices - General methods and procedures for evaluating performance - Part 3. effects of influence quantities Test (idt IEC 61298-3:1998) GB/T 18871-2002 ionizing radiation protection and safety of radiation sources basic standards GB/T 19661.1-2005 nuclear equipment and systems - Safety requirements - Part 1. General requirements GB/T 19661.2-2005 nuclear equipment and systems - Safety requirements - Part 2. radiation protection requirements (IEC 60405:2003, Nuclear instrumentation-Constructional requirements and classification of radiometric gauges, MOD) EJ/T 1059 Nuclear instrumentation packaging General technical requirements

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 Measurement System

3.1.1

With ionizing radiation, and it is designed to make use of ionizing radiation can be non-destructive measurement of the thickness measuring device or material mass per unit area.