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

GB/T 31837-2015

**Hand-held radiation monitor for detection, alarming and
identification of radioactive material**

用于探测、报警与识别放射性材料的手持式辐射监测仪

(English Translation)

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Foreword

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

2006 "Radiation protection equipment for the detection and identification of radionuclides and. The IEC 62327 Standard is a modified method to use to redraft Indicates photon radiation ambient dose equivalent rate handheld monitor. " this standard and IEC

62327:2006 as compared to the presence of a technical difference, Appendix A gives the corresponding technical differences and their reasons for a Lanbiao.

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

This standard was drafted. Institute of Chemical Defense Institute of the PLA Second.

1 Scope

This standard specifies requirements for detection, alarm and handheld monitor to identify radioactive material (gamma spectrometer), and especially for detection , Multi-channel analyzer, identification software, the radionuclide libraries and monitor display requirements. It also specifies the general characteristics, general test side , Radiation characteristics and electrical characteristics, mechanical characteristics, security features and environmental characteristics.

This standard also for the selection of the appropriate radionuclide library (including at border crossings frequently detected radioactive materials) provided guide.

This standard is applicable to the detection and identification of radionuclides and can be indicative of gamma radiation ambient dose equivalent rate handheld monitor. This standard does not Radiation protection monitors the performance of GB/T 4835.1-2012 covered apply.

This standard relates to the monitor can be used for ISO 22188:2003 specified purpose.

This standard can be used to design non-monitor neutron detection function, this time, neutron detection requirements do not apply.

This standard does not include high-resolution gamma spectrometer laboratory use.

Taking into account the possible use of this standard monitor frontline law enforcement officers are not usually experts in radiation protection, which requires user-friendly the monitor design and operation of a high degree of inherent safety.

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 4208-2008 housing protection (IP Code) (IEC 60529:2001, IDT) GB/T 4835.1-2012 radiation protection instrumentation beta, X and gamma radiation surrounding and/or directional dose equivalent (rate) meters and/or monitors Part 1. Portable workplace and environmental meters and monitors (IEC 60846-1:2009, IDT) GB/T 4960.6-2008 nuclear science and technology terminology Part 6. Nuclear instrumentation (IEC 60050-393:2003,

IEC 60050-394:2007, NEQ) X and gamma GB/T 12162.1-2000 for calibrating dosimeters and dose rate meters and for determining their response reference radiation first Part I. Radiation characteristics and production method (ISO 4037-1:1996, IDT) GB/T 16511-1996 Electrical and electronic measuring equipment - Documentation (IEC 61187:1993, IDT) ISO 22188:2003 inadvertent movement and monitoring of illegal traffic of radioactive materials (Monitoringforinadvertent movementandilicitraffickingofradioactivematerial)

3 Terms and Definitions

GB/T 4960.6-2008 defined and the following terms and definitions apply to this document.

Normal mode routinemode by trained non-expert mode of operation used by the user. Including the detection and identification of radionuclides and indicating the ambient dose equivalent rate Level.