



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

GB/T 27025-2019

**General requirements for the competence of testing and
calibration laboratories**

Issued on: December 10, 2019

Implemented on: July 1, 2020

Issued by: SAMR; SAC

Table of Contents

Foreword...	4
Introduction...	6
1 Scope...	7
2 Normative references...	7
3 Terms and definitions...	7
4 General requirements...	10
4.1 Impartiality...	10
4.2 Confidentiality...	11
5 Structural requirements...	11
6 Resource requirements...	13
6.1 General...	13
6.2 Personnel...	13
6.3 Facilities and environmental conditions...	14
6.4 Equipment...	14
6.5 Metrological traceability...	17
6.6 Externally provided products and services...	18
7 Process requirements...	19
7.1 Review of requests, tenders and contracts...	19
7.2 Selection, verification and validation of methods...	20
7.3 Sampling...	22
7.4 Handling of test or calibration items...	23
7.5 Technical records...	24
7.6 Evaluation of measurement uncertainty...	24
7.7 Ensuring the validity of results...	25
7.8 Reporting of results...	26
7.9 Complaints...	31
7.10 Nonconforming work...	32
7.11 Control of data and information management...	32
8 Management system requirements...	33
8.1 Options...	33
8.2 Management system documentation (Option A)...	34
8.3 Control of management system documents (Option A)...	35

8.4 Control of records (Option A)...	35
8.5 Actions to address risks and opportunities (Option A)...	35
8.6 Improvement (Option A)...	36
8.7 Corrective actions (Option A)...	37
8.8 Internal audits (Option A)...	37
8.9 Management reviews (Option A)...	38
Annex A (Informative) Metrological traceability...	40
Annex B (Informative) Management system options...	42
Bibliography...	44

Foreword

This Standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard replaces GB/T 27025-2008 "General requirements for the competence of testing and calibration laboratories". Compared with GB/T 27025-2008, in addition to editorial changes, the main technical changes are as follows.

- Structural adjustment. The main clauses of this Standard are: general requirements, structural requirements, resource requirements, process requirements and management system requirements;
- Risk-based considerations reduce the requirements of the specification and replace them with performance-based requirements;
- More flexibility in the requirements of processes, procedures, documented information and organizational responsibilities;
- ADD the definition of "laboratory" (see 3.6);
- ADD the definition and related content of "decision rule" (see 3.7 and 7.1, etc.);
- CHANGE the content of informative Annex A to "Metrological traceability";
- CHANGE the content of informative Annex B to "Management system options";
- Delete "Preventive action" (see 4.12 of GB/T 27025-2008). The content is

included in this Standard "Actions to address risks and opportunities" (see 8.5);

- Delete "Subcontracting of tests and calibrations" (see 4.5 of GB/T 27025-2008). The content is included in this Standard "Externally provided products and services" (see 6.6).

This Standard, using translation method, is identical to ISO/IEC 17025:2017 "General requirements for the competence of testing and calibration laboratories" (English edition).

China's document which has a consistent correspondence with the international document normatively referenced in this Standard is as follows.

- GB/T 27000-2006 Conformity assessment - Vocabulary and general principles (ISO/IEC 17000:2004, IDT).

This Standard was proposed by and shall be under the jurisdiction of National Technical Committee 261 on Certification and Accreditation of Standardization Administration of China (SAC/TC 261).

Drafting organizations of this Standard. China National Accreditation Service for Conformity Assessment; National Institute of Metrology, China; China Certification & Accreditation Association; China Household Electric Appliance Research Institute; National Research Center for Geoanalysis.

Main drafters of this Standard. Zhang Mingxia, Song Guilan, Fu Wei, Qiao Dong, Li Xue, Guo Dong, Wang Chunyan, Wang Suming, Rao Hong, Lei Zhiwen, Ji Haonan, Yang Hui, Cui Fang, An Ziyi, Zhang Bo, Liu Guorong, Li Leqin, Xu Xiaopeng, Yu Pingwu, Zhong Diyang, Xi Tianpei, Liu Hanxia.

The previous editions of the standard replaced by this Standard were released as follows.

- GB/T 27025-2008;
- GB/T 15481-2000.

1 Scope

This Standard specifies the general requirements for the competence, impartiality and consistent operation of laboratories.

2 Normative references

The following documents are indispensable for the application of this document.

For the dated references, only the editions with the dates indicated are applicable to this document. For the undated references, the latest edition (including all the amendments) are applicable to this document.

ISO/IEC Guide 99 International vocabulary of metrology - Basic and general concepts and associated terms (VIM)1)

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC Guide 99 and ISO/IEC 17000 and the following apply.

4 General requirements

Information about the customer obtained from sources other than the customer (e.g. complainant, regulators) shall be confidential between the customer and the laboratory. The provider (source) of this information shall be confidential to the laboratory and shall not be shared with the customer, unless agreed by the source.

5 Structural requirements

Laboratory activities shall be carried out in such a way as to meet the requirements of this Standard, the laboratory's customers, regulatory authorities and organizations providing recognition. This shall include laboratory activities performed in all its permanent facilities, at sites away from its permanent facilities, in associated temporary or mobile facilities or at a customer's facility.

6 Resource requirements