



شعبة الترجمة الرسمية
Official Translation Department

Law of Measurement and Calibration

Royal Decree No. M/51
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Translation of Saudi Laws



NOTE:

The translation of Saudi laws takes the following into consideration:

- Words used in the singular form include the plural and vice versa.
- Words used in the masculine form include the feminine.
- Words used in the present tense include the present as well as the future.
- The word “person” or “persons” and their related pronouns (he, his, him, they, their, them) refer to a natural and legal person.



Law of Measurement and Calibration

Chapter 1: Definitions and Objectives

Article 1

The following terms and phrases, wherever mentioned in this Law, shall have the meanings assigned thereto, unless the context requires otherwise:

Law: Law of Measurement and Calibration.

Regulations: Implementing Regulations of this Law.

SASO: Saudi Standards, Metrology and Quality Organization.

Metrology: Science of measurement.

Measurement: A set of processes designed to determine the value of a certain quantity.

Calibration: A set of processes designed to determine, under certain conditions, the relation between the output of a measuring instrument or system and known values corresponding to the measured quantity.

Calibration Certificate: A document stating calibration results.

Statutory Calibration: The part of metrology concerned with measurement units, methods and instruments, in relation to mandatory technical and statutory requirements to ensure overall protection in terms of safety and proper measurement accuracy.

Measurement Standard: A material measure or measuring instrument or system intended to define, produce or preserve a unit or one or more values of a quantity to be transferred to other measuring instruments.

Weights and Measurements: All measurement standards and processes relating to statutory calibration.

Measuring Instrument: A device used for measurement, alone or in conjunction with other devices in a regular manner.

International System of Units (SI): A coherent system of units adopted and recommended by the General Conference on Weights and Measures (CGPM).

Primary Standard: A standard of quantity with the highest metrological qualities in a given area.

National Standard: A standard acknowledged pursuant to an official national resolution as a reference for all other standards of a given quantity in a certain country, based on the relevant international standard.

International Standard: A standard acknowledged pursuant to an international agreement used worldwide as a reference for all other standards of a given quantity.

Reference Standard: A standard with the highest metrological qualities in a



given location.

Effective Standard: A standard calibrated against a reference standard and used regularly to calibrate or check material measures or measuring instruments.

Traceability: A property of a certain measurement result whereby said result can be related to international or national standards through unbroken chain of comparisons.

Verification: A set of processes conducted by approved laboratories to ensure that a measuring device or instrument meets all verification requirements. Verification includes both testing and marking.

Primary Verification: The first verification of a new measuring instrument not previously verified.

Inspection: A set of processes to verify that a measuring instrument meets statutory verification requirements or recommendations provided for in technical specifications.

Marking: Attaching marks to a measuring instrument as an indication of meeting verification requirements.

Testing: A set of processes to verify the performance of a sample in order to determine its quality under certain conditions.

Measurement or Testing Report: A document stating the measurement or testing results and any other information related thereto.

Uncertainty of Values: An assessment indicating the range of values within which the actual value of a measured quantity falls.

Prototype: The final design of a measuring instrument in which all elements affecting its metrological properties are properly determined.

Quality Mark: A mark given by SASO to a national product upon verification of its conformity with relevant Saudi standard specifications.

Certificate of Conformity: A certificate granted by SASO or an approved international body to certain set of products, which have been tested for conformity, in accordance with Saudi standards or approved international standards.

NMCC: National Measurement and Calibration Center.

Approved Laboratories: Laboratories to which the organization grants a certificate of approval indicating their capacity to perform some or all testing or calibration services.

Article 2

This Law shall aim to achieve the following:

- Consolidate measurement and calibration authorities in the Kingdom.
- Conform to the international measurement and calibration system.
- Facilitate trading in commodities between the Kingdom and other countries,



in terms of measurement and calibration.

- Provide measurements and standards for commercial, industrial and scientific areas.

Chapter 2: Measurement Units

Article 3

All measurements in the Kingdom of Saudi Arabia shall adopt the International System of units (SI) and all laboratories shall use SI Units which are:

1. Length: Meter;
2. Mass: Kilogram;
3. Time: Second;
4. Temperature: Kelvin;
5. Electric current: Ampere;
6. Amount of Substance: Mole; and
7. Luminous intensity: Candela.

Article 4

SI units and their symbols and derivatives used in every area shall be specified by means of standard specifications adopted by SASO.

Article 5

Measurements and calibrations of quantum properties of imported and domestic goods shall be visibly displayed on goods, using SI units.

Chapter 3: Categories of Laboratories and Traceability of Measurement Standards

Article 6

Measurement and calibration laboratories shall be categorized as follows:

1. NMCC.
2. Approved laboratories.

Article 7

In order for measurement standards to be traceable, the following requirements shall be met:



1. National standards calibration certificates kept at NMCC shall be valid and shall include uncertainty of values and be issued by the International Bureau of Weights and Measures (BIPM) or any internationally accredited calibration laboratory; in order to confirm traceability to international standards.
2. Reference and working standards of NMCC shall be calibrated in the Center with uncertainty of values, in order to verify their traceability to national standards.
3. Working standards of approved laboratories shall be calibrated in said laboratories along with uncertainty of values, in order to verify their traceability to national standards.
4. Calibration certificates relating to reference standards of measurement and calibration laboratories approved by SASO shall include uncertainty of values and be issued by NMCC, in order to verify their traceability to national standards.

Chapter 4: Duties of Authorized Measurement and Calibration Bodies

Article 8

A. Duties of SASO:

Without prejudice to its jurisdiction under the Law, SASO shall assume the following:

1. Approving prototypes in accordance with the Saudi standard specifications or recommendations of the International Organization of Legal Metrology (OIML) and granting prototype approval certificates for measuring instruments and initial verification.
2. Approving measurement and calibration laboratories.
3. Coordinating with relevant parties to ensure the maintenance of reference standards in approved laboratories, as well as good maintenance and international calibration of working standards therein by means of tracing the same to SI Units and national standards kept at NMCC.
4. Granting certificate of conformity to prototype measuring instruments which are subject to legal metrology.

B. Duties of NMCC:

1. Maintaining and preserving national, reference and working standards which represent SI Units and multiples and submultiples thereof, ensuring their traceability to international standards and specifying uncertainty of values.
2. Calibrating reference and working standards and measuring instruments of other laboratories on a periodical basis.
3. Conducting research on development of measurement standards and verification of SI Units and multiples and submultiples thereof.



4. Submitting measuring instruments' testing and inspection reports to SASO to grant certificates of prototype conformity, and conducting initial verification of measuring instruments.
 5. Providing SASO with technical advice on drafting Saudi standard specifications, granting certificates of approval to laboratories and granting quality marks.
 6. Providing assistance and advice in the area of measurement and calibration to agencies and laboratories upon their request.
 7. Maintaining, preserving and calibrating legal units of measuring instruments.
- C. Duties of Approved Laboratories:
1. Maintaining reference and working standards traced to National Standards.
 2. Calibrating measuring instruments of said laboratories on a periodical basis.
 3. Maintaining reference and working standards in order to calibrate and verify measuring instruments.
 4. Examining and verifying measuring instruments covered by this Law and its Regulations, in accordance with their calibers, weights, scales or measures, and ensuring that no methods or techniques undermining the same are used.
 5. Providing calibration and testing services in order to meet calibration requirements, inside or outside laboratories.

Article 9

NMCC and approved laboratories shall undertake the following:

1. Conduct initial verification of new measuring instruments after granting them certificates of conformity and prior to using them. The Regulations shall specify the manner of conducting the primary verification and location thereof, as well as referral of instruments for verification and determination of validity periods.
2. Collect calibration costs from parties requesting service, in accordance with the Regulations.

Chapter 5: Rules for Maintenance, Preservation and Traceability of Measurement Standards Used for Legal Calibration Purposes

Article 10

A. Rules for maintaining measurement standards:

1. National standards maintained by NMCC shall have a valid calibration



certificate traceable to international standards verified at NMCC or maintained by the International Bureau of Weights and Measures (BIPM) or accredited international calibration laboratories.

2. Reference and working standards shall be calibrated internally and values thereof shall be listed along with uncertainty of values.
 3. Reference standards shall have a valid calibration certificate stating uncertainty of values thereof and issued by SASO.
 4. Working standards shall be calibrated against reference standards and their values shall be specified along with uncertainty of values.
 5. Measurement units as well as multiples and submultiples thereof shall be physically represented by national, reference and working standards.
- B. Calibration period and marking method:
1. The Regulations shall specify the calibration period for all measurement standards maintained by SASO and other approved laboratories.
 2. Markings shall be designed in accordance with procedures set forth in the Regulations.

Chapter 6: Metrological Requirements for Measuring Instruments

Article 11

1. Saudi standard specifications relating to requirements and methods of calibration of measuring instruments shall apply as stipulated in the Regulations.
2. Relevant Saudi standard specifications shall be based on the recommendations of the International Organization of Legal Metrology (OIML).

Chapter 7: Detection, Investigation and Trial

Article 12

Violations of the provisions of this Law shall be detected and recorded by competent officers, and the Regulations shall specify the following:

1. The entities or parties responsible for naming said officers.
2. Jurisdictions and duties assigned thereto.

Article 13

The Bureau of Investigation and Public Prosecution shall have jurisdiction to investigate and prosecute violations of this Law.



Article 14

The competent court shall decide violations and claims arising from the application of this Law.

Chapter 8: Penalties

Article 15

1. Subject to provisions of the Anti-Commercial Fraud Law, or any other law, any person violating the provisions of this Law shall be punished by the following:
 - a) A fine not exceeding one hundred thousand Riyals for violating the provisions of Articles (3, 4 and 5) of this Law.
 - b) A fine not exceeding two hundred thousand Riyals for possessing or using measuring instruments not conforming to the provisions of this Law.
2. In any event, if measuring instruments not conforming to the provisions of this Law are possessed or used; the competent court shall order such instruments to be confiscated or destroyed.

Chapter 9: Final Provisions

Article 16

SASO's Board of Directors shall issue the Regulations which shall enter into force one hundred and eighty days from the date of issuance of this Law.

Article 17

This Law shall supersede the Law of Calibration and Measurement issued by Royal Decree No. (29) on Ramadan 13, 1383 H, and repeal conflicting provisions.

Article 18

This Law shall enter into force one hundred and eighty days from the date of its publication in the Official Gazette.