# **MINISTRY OF ECONOMY**

# **LAW ON METROLOGY**

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#### LAW ON METROLOGY

# I. GENERAL PROVISIONS

#### Article 1

This Law regulates the metrological system in the Republic of Macedonia; the authority of the Bureau for Metrology; the legal units of measurement; the measurement standards; the reference materials; measuring instruments placement on the market and putting into service; the conformity assessment of the type of measuring instruments; the verification of the measuring instruments; the validity of the marks and the certificates for the conformity assessment of the type of the measuring instruments and the marks and the seals or the certificates for verification of the measuring instruments of foreign origin; the metrological supervision over the quantities and marks of the prepacked products; and the supervision over the application of the provision of this Law and other matters of significance to the metrological system for the purposes of ensuring metrological harmony in the country and with the world.

#### Article 2

The terms used in this Law shall have the following meaning:

- 1. **Metrology** is the science of measurement;
- 2. **Unit of measurement** is a value of particular quantity, defined and adopted by convention as having a numerical value equal to one (1);
- 3. **Legal unit of measurement** is unit of measurement the use of which is imposed and permitted by this Law;
- 4. Measurement standard 9 (hereinafter referred to as "standard") is a material measure, measuring instrument or measuring system intended to define, realize, conserve or reproduce a unit or one or more values of quantity to serve as reference:
- 5. **National measurement standard** is reference measurement standard recognized by a decision of the Bureau to serve in Republic of Macedonia as the basis for assigning values to other standards of the quantity concerned;

- 6. **Reference measurement standard** is measurement standard, basically having the highest metrological qualities and available at a given location or in a given organization, and serves as a basis for measuring at such place;
- 7. Calibration is a set of operations that establish, under specific conditions, the relationship between the values of quantities indicated by measuring instruments or measuring system, or values represented by a material measure or by reference material, and the corresponding values realized by measurement standards;
- 8. **Traceability** is a property of the result of measurement or the value of a measurement standard whereby it can be related to stated references, usually national or international measurement standards, through an unbroken chain of comparisons all having stated uncertainties;
- 9. Reference material is material or substance whose property values of physical characteristics or chemical composition are sufficiently well established to be used in the calibration of measurement standards and measuring instruments or for the assessment of a measurement method;
- 10. Certified reference material is reference material, accompanied by a certificate, for whose property values of physical characteristics or chemical composition a traceability is established with the units of measurement expressing the property values of physical characteristics or chemical composition and for which the uncertainty of measurement can be defined;
- 11. **Measuring instrument** is a device intended to be used to make measurements, alone or in conjunction with supplementary devices;
- 12. Category of measuring instruments are the measuring instruments which measure the same physical quantity;
- 13. **Kind of measuring instruments** are the measuring instruments which measure on the same or similar principles, the same physical quantity;
- 14. Type of measuring instrument comprise measuring instruments of the same manufacturer, which have similar characteristics with respect to their purpose, use, principles of construction, shape, components, materials and metrological characteristics, and can differ as regards the range of measurement and nominal values;
- 15. **Verification** is set of operations which are made by the Bureau for metrology or legal person designated by the minister of economy, with intention to establish

and to confirm that the measuring instrument conform to the prescribed metrological conditions for verification. The verification includes metrological examination and sealing, as well as issuing of verification certificate;

- 16. **Metrological examination** is a set of operations used to determine the compliance of a measuring instrument with the prescribed conditions regarding its metrological characteristics, for the purposes of verification;
- 17. **Sealing** is a set of operations the purpose of which is to place a mark on the measuring instrument confirming that the measuring instrument satisfies the regulations and other verifications acts. Certain parts of the measuring instrument which can affect the metrological characteristics, are sealed in order to be protected against any modification or replacement following the verification;
- 18. **Prepackages** are the products in solid, liquid or gas state in tested packaging, repacked in the absence of the consumer and which quantitative content cannot be changed without opening or changing the packaging.

# **Article 3**

The provisions of this Law refer to the measuring instruments used to ensure:

- protection of the health and life of human beings, animals and plants;
- protection of common technical safety;
- undisturbed exchange of goods and services; and
- procedure in administrative and judicial institutions.

The traceability of all measuiring instruments referred to in paragraph 1 of this Article, must be defined and ensured.

# **II. BUREAU OF METROLOGY**

#### **Article 4**

The professional and other duties in the field of metrology defined with this Law and with the other laws shall be performed by the Bureau of Metrology (hereinafter: Bureau), as an institution within the Ministry of Economy.

The Bureau has the status of legal person. The Bureau is managed by a Director.

For the purposes of maintainance and development of the metrological system in the Republic of Macedonia, the Government of the Republic of Macedonia shall prepare, at proposal by the Ministry of Economy, Yearly Programs.

The Ministry of Economy shall submit to the Government of the Republic of Macedonia reports on the enforcement of the Program referred to in paragraph 1 of this Article, at least twice a year,.

# Article 6

The Bureau performs the tasks and duties relating to the metrological system of the Republic of Macedonia concerning:

- supervision over the use and the manner of writing of the legal units of measurement;
- ensuring the traceability, as well as the realization, conservation and maintenance of the national measurement standards and certified reference materials;
- ensuring the traceability of the reference measurement standards;
- calibration of measurement standards and instruments;
- participation in the procedure for the accreditation of the laboratories for calibration and testing under the Law on Accreditation;
- supervision over the work of the legal persons authorized to perform particular metrology related activities in accordance with this Law;
- conformity assessment of the type (pattern) of measuring instruments;
- verification of measuring instruments;
- procedures of registration for recognition of the validity of the marks and the certificates for the conformity assessment of the type of the measuring instruments and the marks and the seals or the certificates for verification of the measuring instruments of foreign origin;
- metrological supervision over the quantities and marking of the prepackages;
- professional supervision of the enforcement of the provisions of this Law and of the regulations enacted on basis of this Law and other laws;
- permanent training and education of the employees of the Bureau and of the authorized legal persons;

- definition of the terms of reference of the Metrological Council and participation in its work;
- consulting services for the needs of the natural and legal persons trading in or using measuring instruments;
- cooperation with other inspection bodies, and
- other tasks and duties relevant to the enforcement of this Law and the regulations enacted under this Law.

The Bureau is a member of, and represents the Republic of Macedonia in, the international and regional metrology organizations, and cooperates and participates in they work.

#### Article 8

The Minister of Economy hereby establishes the Metrological Council (hereinafter: Council), to act as a professional and counseling body to the Bureau in matters of metrology.

The Council shall consist of a Chairman and members, appointed by the Minister of Economy on the principle of professional competency and equal representation of all interested entities of the metrological system.

The Chairman and the members of the Council shall be appointed for a period of four years.

The members shall be entitled to an adequate remuneration for their work in the Council, to be determined by the Minister of Economy.

The Council shall submit a report on its work to the Minister of Economy, at least once a year

# Article 9

The Bureau publishes a Bulletin containing:

- the certificates for conformity assessment of the type (pattern) of measuring instruments issued on the base of this Law form the Bureau or designated legal persons for conformity assessment of the type (pattern) of measuring instruments;
- the certificates issued by the Minister of Economy, for authorization of legal persons to perform the professional duties pursuant to this Law;
- the certificates of recognition of reference measuring standards for national measuring standards, issued by the Bureau;
- the register (list) for recognition of validity of the marks and the certificates for the conformity assessment of the type of the measuring instruments and the marks and the seals or the certificates for verification of the measuring instruments of foreign origin;
- professional and scholarly articles on metrology;
- other information related to metrology.

# III. LEGAL UNITS OF MEASUREMENT

#### Article 10

In the Republic of Macedonia the legal units of measurement are in use.

The legal units of measurement are:

- 1. The units of the International System of Units SI (System Internationale d' Unites) (hereinafter: SI);
- 2. Decimal multiples and sub-multiples of units;
- 3. Other units;
- 4. Compound units formed by combining the units referred to in items 1, 2 and 3 of this Article.

The application of the legal units of measurement referred to in paragraph 1 of this Article is mandatory in the use of:

- 1. measuring standards, measuring instruments and reference materials;
- 2. Results of measurements performed; and

3. Presentation of quantities expressed in units of measurement, in maters related to the protection of human, animal and plant health and life, environment protection, general technical safety of products, production and placement on the market, education, standardization and in operations of a judgment and administrative character.

# Article 11

The Mister of economy prescribes the definitions, names and symbols, the field and the manner of use, the obligation to use, and the manner of writing, the legal units of measurement.

# IV. MEASUREMENT STANDARDS

# Article 12

The Bureau enforces, conserves and maintains the national measurement standards and ensures their traceability by means of calibration or inter-lab comparison.

The Bureau may, with a decision, recognize as national measurement standard any reference standard enforced, conserved and maintained by a legal person.

#### Article 13

The minister of economy prescribes the conditions concerning enforcement, conservation and maintainance of the national measurement standards, and the conditions for the recognition of a reference measurement standard as national standard.

# Article 14

Should the Bureau establish that the conditions for recognizing a measurement standard as national measurement standard, or the conditions for the enforcement, conservation and maintenance of a national standard, no longer exist, it will repeal its decision for recognizing a measurement standard as national measurement standard.

The decision referred to in paragraph 1 of this Article may be appealed with the Minister of Economy.

The appeal shall not delay the execution of the decision.

# IV. REFERENCE MATERIALS

# Article 15

Certified reference materials may be enforced, conserved and maintained by the Bureau or by a legal person, which provide traceability of their physical properties or chemical composition, with the measurement units expressing the values of their physical properties or chemical composition.

#### Article 16

The Minister of Economy prescribes the manner and the procedure of enforcement, conservance and maintainance of certified reference materials.

# V. MEASURING INSTRUMENTS

# 1. Measuring instruments trade and use

#### Article 17

Measuring instruments referred to in paragraph 1 of Article 3 of this Law shall not be placed on the market or used in the Republic of Macedonia, unless they meet the conditions defined in this Law and in the regulations enacted under this Law and other laws for the conformity assessment of the type (pattern) and for the verification of the measuring instruments.

# 2. Conformity assessment of the type (pattern) of measuring instruments

# **Article 18**

The procedure of conformity assessment of the type (pattern) of the measuring instruments confirms their conformity with the requirements of this Law and of the regulations enacted under of this Law and other laws and their applicability.

The use in the Republic of Macedonia of measuring instruments which meet the requirements referred to in paragraph 1 of this Article cannot be limited.

#### Article 19

The Minister of Economy shall prescribe the manner and procedure for conformity assessment of the type (pattern) of the measuring instruments, as well as the method, particular methods or particular combination of methods for assessment of conformity of the types of measuring instruments, and the content and form of the certificates for conformity of the type (pattern) of the measuring instruments.

#### Article 20

The conformity assessment shall be performed by the Bureau or legal person authorized by the Minister of Economy.

The Minister of Economy, on proposal by the Bureau, shall authorizhe legal person whose competence has been verified in accordance with the accreditation rules or rules equivalent to those of accreditation, in accordance with the Law on accreditation, and who meet the additional requirements for particular conformity assessment procedures with regard to measurting instrument types.

The Minister of Economy shall prescribe the additional requirements referred to in paragraph 2 of this Article, the procedure of authorizing the legal person, the authorities of the authorized legal person, and the method of supervising the meeting of the authorization requirements.

# 3. Verification of measuring instruments

#### Article 21

The measuring instruments referred to in Article 3 of this Law shall be subjected to initial, periodical and exceptional verification.

#### Article 22

The manufacturer of the measuring instruments shall be responsible for their initial verification.

#### Article 23

The periodical verification of the measuring instruments is a responsibility if their owner.

As an exemption from paragraph 1 of this Article, the periodical verification of thermal energy meters, electric energy meters, measuring transformers, time switches, water meters, fuel dispensers for motor vehicles, gas meters, correctors and parking meters, shall fall under the responsibility of the legal and natural persons individuals selling thermal energy, electric energy, water, gas, fuel and letting parking lots, the owner of the measuring instruments notwithstanding.

# Article 24

Periodical verification of a measuring instrument shall be performed in the expiry year of the validity of the verification marks, or of the measuring instruments verification certificate.

# Article 25

Exceptional verification shall be mandatory for measuring instruments withdrawn from service due to malfunction or other technical shortcomings.

The exceptional verification shall determine whether the measuring instrument still complies with the approved type (pattern) and/or with the requirements of the regulations enacted under this Law.

The legal person who has repaired or remodeled the measuring instrument shall ensure its exceptional verification.

# Article 26

The Minister of Economy prescribes the manner and the procedure of verification of the measuring instruments referred to in Articles 22, 23 and 25 of this Law.

The Minister of Economy shall specify the categories and the types of measuring instruments requiring mandatory verification, and the procedures of verification, time limits within which the periodical verification should be made, as well as the categories and types of measuring instruments for which authorization for verification may be obtained.

# Article 28

If during the procedure of verification it is established that a measuring instrument is in conformity with the approved type and/or prescribed metrological requirements for verification, such instrument shall be marked with verification marks and seals, or granted verification certificate.

If during the procedure of verification it is established that a measuring instrument is not in conformity with the approved type and/or prescribed metrological requirements for verification, such instrument shall not be marked with verification marks and seals, and shall not be granted verification certificate.

#### Article 29

The Minister of Economy shall prescribe the types and forms of marks and seals used in the verification of measuring instruments, as well as the content and form of measuring instruments verification certificate.

The marks and seals, as well as the measuring instrument verification certificate shall cease to be valid:

- 1) if their validity has expired;
- 2) when altered, damaged or removed (only for marks and seals);
- 3) when annuled; and
- 4) when the measuring instrument has been repaired or remodeled.

A measuring instrument which has no marks and seals, or verification certificate, or whose marks and seals, or verification certificate have ceased to be valid, may not be used.

The verification shall be performed by the Bureau or by the legal person authorized by the Minister of Economy.

The Minister of Economy, on proposal by the Bureau, shall authorize, with a decision, the legal person whose competence has been verified in accordance with the accreditation rules or rules equivalent to those of accreditation in compliance with the Law on Accreditation, and who mets the additional requirements for verification of particular tupes of measuring instruments.

The Minister of Economy shall prescribe the additional requirements referred to in paragraph 2 of this Article, the procedure of authorizing the legal person, the duties of the authorized legal person, and the method of supervising the meeting of the authorization requirements.

# VII. VALIDITY OF MARKS AND CERTIFICATES OF CONFORMITY ASSESSMENT OF TYPE OF MEASURING INSTRUMENTS AND MARKS AND SEALS, AS WELL AS CERTIFICATES OF VERIFICATION OF MEASURING INSTRUMENTS OF FOREIGN ORIGIN

# **Article 31**

In Republic of Macedonia the following shall be recognized as valid:

- The marks and certificates on conformity assessment of the type of the measuring instruments; and
- The marks and seals, as well as the certificates of verification of measuring instruments of foreign origin, issued in compliance with the international, as well as with bilateral or multilateral agreements concluded and ratified, or acceded by the Republic of Macedonia.

# **Article 32**

The Bureau shall keep Register in which the marks and certificates of conformity assessment of type of measuring instruments are registered, as well as the certificates of verification of measuring instruments issued in compliance with Article 31 of this Law.

The registration in the Register referred to in paragraph 1 of this Article shall be made on request by interested legal and natural person.

The Bureau shall issue a certificate for the registration of the data in the Register referred to in paragraph 1 of this Article,.

The decision rejecting registration in the Register may be appealed with the Minister of Economy.

The Minister of Economy shall prescribe the form, content asnd manner of keeping of the Register referred to in paragraph 1 of this Article, as well as the format and content of the certificates referred to in paragraphs 3 and 4 of this Article.

# VIII. METROLOGICAL SUPERVISION OF QUANTITIES AND MARKING OF PRE-PACKAGED ARTICLES

# **Article 33**

The quantities of pre-packaged articles on the market are subject to metrological supervision.

Allowed to the marked in the Republic of Macedonia shall be only pre-packaged articles the quantities of which are accurately, clearly and unambiguously indicated, and which deviate from the actual quantities within the permitted limits.

# **Article 34**

Metrological supervision of pre-packaged articles shall be performed by the Bureau or by the authorized legal person.

The Minister of Economy, on proposal by the Bureau, shall authorize, with a decision, the legal person whose competence has been verified in accordance with the accreditation rules or rules equivalent to those of accreditation in compliance with the

Law on Accreditation, and who mets the additional requirements for verification of particular tupes of measuring instruments.

The Minister of Economy shall prescribe the additional requirements referred to in paragraph 2 of this Article, the procedure of authorizing the legal person, the duties of the authorized legal person, and the method of supervising the meeting of the authorization requirements.

# Article 35

The Minister of Economy shall prescribe the method of supervision and the requirements to be met by the quantities of pre-packaged articles, method of indication of the quantities, the permitted deviations of the actual quantities from the indicated quantities, and the list of nominal quantities of pre-packaged articles.

# Article 36

Should an examination of pre-packaged articles establish that they do not correspond to the indication of quantities, or that the quantity was not clerarly indicated or was ambiguously indicated or that the permitted deviation of actual quantity has been exceeded, the Bureau shall issue a decision banning their placement on the market.

The decision referred to in paragraph i of this Article may be appealed with the Minister of Economy.

The appeal shall not delay the execution of the decision.

# IX. PAYMENT OF EXPENSES

# **Article 37**

The services performed by the Bureau and by the authorized legal person with regard to:

- Calibration of measurement standards:
- Inter-laboratories comparison of measurement standards;

- Conformity assessment of type of measuring instruments;
- Verification of the measuring instruments;
- Supervising the meeting of the conditions for authorization of legal persons;
- Supplying of the marks and certificates of conformity assessment of the type of measuring instruments;
- Supplying of marks and seals, as well as certificates of verification of measuring instruments:
- Registration of marks and certificates of conformity assessment of the type of measuring instruments and marks and seals, as well as certificates of verification of measuring instruments of foreign origin;
- Metrological supervision of quantities and marks of pre-packaged articles; and
- Consulting and training,

shall be subject to a fee.

The Government of the Republic of Macedonia shall prescribe the amount and manner of payment of the fee referred to in paragraph 1 of this Article.

#### X. SUPERVISION

# **Article 38**

The supervision over the implementation of the provisions of this Law and of the regulations enacted under this Law and other laws shall be performed by the Ministry of Economy.

#### Article 39

Inspection over the implementation of the provisions of this Law and of the regulations enacted under this Law and other laws relating to the use of the legal units of measurement and to the trade in and use of the measuring instruments shall be performed by the body in charge of market inspection.

# Article 40

Professional supervision over the implementation of the provisions of this Law and the regulations enacted under this Law and other laws relating to the use of the legal unit of measurement; the meeting of the conditions for enforcement, conservance and maintainance of the national measurement standards; trade in and use of the measuring instruments; and the work of the legal persons authorized pursuant to this Law; shall be performed by the Bureau.

# Article 41

The Minister of Economy shall prescribe the manner and procedure for the professional supervision.

#### Article 42

The personnel performing the tasks and duties of professional supervision must have official identity card establishing their official capacity, and are obliged to show such identity cards upon request.

The official identity cards shell be issued by the Minister of Economy.

The Minister of Economy shall prescribe the form and the manner of issuance and revoking of the official identity card.

#### Article 43

If a violation is established of the provisions of this Law and of the regulations enacted under this Law and other laws concerning the use of the units of measurement and the trade in and use of measuring instruments, the body in charge of market inspection shall make a decision on banning, or the Bureau shall propose to such body to ban:

- the use of units of measurement not prescribed with this Law; and
- placement on the market and use of measuring instruments referred to in paragraph 1 of Article 3 of this Law which do not meet the requirements specified with this Law and with the regulations enacted under this Law and other laws.

The decision referred to in paragraph 1 of this Article may be appealed with the Minister of Economy.

The appeal shall not delay the execution of the decision.

#### Article 44

If a violation is established of the provisions of this Law and of the regulations enacted under this Law and other laws concerning the meeting of the conditions for enforcement, conservance and maintainance of the national measurement standards, or the work of the legal persons authorized under this Law, the Bureau shall make a decision:

- annuling the decision on the the recognition of a measuring standard as a national measuring standard; and
- containing a proposal to the Minister of Economy to annul the decision for the authorization of the legal person.

The decision referred to in paragraph 1 of this Article may be appealed with the Minister of Economy.

The appeal shall not delay the execution of the decision.

#### XI. PUNITEVE PROVISIONS

# Article 45

A legal person shall be punished with a fine of 80.000 to 240.000 denars for the following offences:

- 1. use of units of measurement not prescribed with this Law, or with the regulations enacted under this Law (Article 10, paragraph 3);
- placement on to market or use of measuring instruments referred to in Article 3
  paragraph 1 of this Law, which do not meet the requirements of this Law and of
  the regulations enacted under this Law and other laws for the conformity assessment of the type (pattern) and for verification of the measuring instruments
  (Article 17);
- 3. restriction of the use of the measuring instruments (Article 18, paragraph 2);

- 4. failure to take care of the initial verification (Article 22);
- 5. failure to take care of the periodical verification (Article 23);
- 6. failure to take care of the exceptional verification (Article 25, paragraph 3);
- 7. use of a measuring instrument whose marks and seals, or verification certificate has expired (Article 29, paragraph 2);
- 8. use of a measuring instrument lacking marks and seals or verification certificate (Article 29, paragraph 3);
- 9. placement on the market of pre-packaged articles lacking accurate, vclear or unambigous indication of quantity, or whose actual quantity exceeds the permitted deviations from the indicated quantity (Article 33, paragraph 2);
- 10. failure to abide by the decision banning the placement of the pre-packaged on the market (Article 36, paragraph 1);
- 11. failure to abide by the decision banning the use of units of measurement not prescribed with this Law or with the regulatios enacted under this Law (Article 43, paragraph 1, passage 1); and
- 12. failure to abide by the decision banning the placement on the market and the use of measuring instruments referred to in Article 3 paragraph 1 of this Law, which are not meet the requirements set out in this Law and in the regulations enacted under this Law and other laws for the conformity assessment of the type (pattern) and for the verification of the measuring instruments (Article 43, paragraph 1, passage 2).

The responsible person of the legal person shall be punished with a fine of 15.000 to 45.000 denars for the offence referred to in paragraph 1 of this Article.

In addition to the fines for the offences referred to in paragraph 1 items 2, 7, 8 and 12 of this Article, a measure of precaution – seizure of the measuring instruments used in the offence shall also be imposed.

#### Article 46

A fine of 15.000 to 45.000 denars shall be imposed for offence comitted by a natural person for the activities referred to in Article 45, paragraph 1, items 1, 7, 8, 9, 10, 11 and 11.

In addition to the fine referred in paragraph 1, point 2, 7, 8 and 12 of the Article 45, a measure of precaution – seizure of the measuring instruments used in the offence shall also be imposed.

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# XII. TRANSITIONL AND FINAL PROVISIONS

# **Article 47**

The regulations enacted under the Law on Units of Measurement and Measuring Instruments ("Official Gazette of the Republic of Macedonia", No. 23/95), as well as the regulations which are applied pursuant to this Law, shall pending the enactment of the regulations under this Law.

# Article 48

The marks and certificates of conformity assessment of the type of measuring instruments (decisions on the approval of a type of measuring instrument), as well as the marks and seals and certificates of verification, of the measauring instruments (seals, or instrument regularity certificates) issued before this Law has become effective, shall remain effective under the conditions and time limits defined in the regulations on the basis of which they were issued, pending the enactment of the regulations under this Law regulating the manner, procedures and conditions of their issuance.

# Article 49

For the purposes of undisturbed performance of the assignments and tasks relating to metrology, the Government of Republic of Macedonia shall provide premises for the work of the Bureau of Metrology.

The tangible assets, equipment and archive of the Bureau of Standardization and Metrology used in the metters of metrology shall be transferred to the Bureau of Metrology into its unredeemable use.

The employees of the Bureau of Standardization and Metrology performing tasks related to metrology shall continue to perform these tasks in the Bureau of Metrology.

# Article 50

The Bureau of Standardization and Metrology shell continue to perform the task as Bureau of Metrology within the Ministry of economy.

# Article 51

Pending the establishment of the Bureau of Metrology, the Bureau of Standardization and Metrology shall perform the assignments in the field of metrology.

#### Article 52

On the day of entering into force of this Law, the Law on Units of Measurement and Measuring Instruments ("Official Gazette of Republic of Macedonia", No. 23/95) shall cease to apply.

# Article 53

This Law shall enter into force on the eighth day following its publication in the "Official Gazette of the Republic of Macedonia".