

# Legal metrology in Ukraine

Law of Ukraine "On Metrology and Metrological Activity" dated June 5, 2014 no. 1314-VII

<b>1. Organizational structure in legal metrology</b>	<p><b>The National Metrology Service includes:</b></p> <ul style="list-style-type: none"><li>• the central executive body that ensures the formation and implementation of state policy in the field of metrology and metrological activity – The Ministry of Economy of Ukraine (Ministry of Economy);</li><li>• the central executive body, implementing the state policy in the field of metrological supervision (SSUFSCP);</li><li>• scientific metrological centers (SMC);</li><li>• state enterprises subordinated to the Ministry of Economy and conducting metrological activity in the Autonomous Republic of Crimea, regions, cities of Kyiv and Sevastopol, cities of regional significance (Metrological Centers);</li><li>• the Service of Universal Time and Standard Frequencies, the Service of Reference Materials of Composition and Properties of Substances and Materials, the Service of Standard Reference Data on Physical Constants and Characteristics of Substances and Materials;</li><li>• metrological services of central executive bodies, other state bodies, enterprises and organizations;</li><li>• conformity assessment bodies of measuring instruments and verification laboratories.</li></ul> <p><b>The main powers of the Ministry of Economy include:</b></p> <ul style="list-style-type: none"><li>• ensuring legal regulation in the field of metrology and metrological activity;</li><li>• organization of fundamental research in the field of metrology;</li><li>• ensuring the functioning and improvement of the national standard base;</li><li>• development or participation in the development of state scientific and scientific-technical programs related to ensuring the uniformity of measurements;</li><li>• representation and participation from Ukraine in the activities of international, European and other regional metrology organizations;</li><li>• coordination of activities to ensure the functioning of the metrological system of Ukraine</li><li>• authorization to carry out verification of legally regulated measuring instruments in operation;</li><li>• exercise of other powers determined by laws and assigned to him by acts of the Cabinet of Ministers of Ukraine.</li></ul> <p><b>The following were appointed as the SMC:</b></p> <ul style="list-style-type: none"><li>• State Enterprise "All-Ukrainian State Research and Production Center for Standardization, Metrology, Certification and Consumers Rights Protection" (SE "UKRMETRTESTSTANDARD")</li><li>• National Scientific Center "Institute of Metrology" (NSC "Institute of Metrology");</li><li>• State Enterprise "Scientific-research Institute For Metrology of Measurement and Control Systems" (SE NDI "Systema");</li><li>• State enterprise "Ivano-Frankivsk Research-and-Production Center for Standardization, Metrology and Certification" (SE "Ivano-Frankivskstandartmetrology").</li></ul> <p><b>SMC in its activities:</b></p> <ul style="list-style-type: none"><li>• carry out fundamental scientific research in the field of metrology, as well as carry out work related to the development and implementation of state programs on metrology and the concept of development of the metrological system of Ukraine;</li><li>• carry out scientific and applied research and carry out research work related to the creation, improvement, storage, comparisons, the use of national standards, the creation of systems for transferring the sizes of units of measurement;</li><li>• participate in the development of draft technical regulations, other normative legal acts, as well as normative documents in the field of metrology and metrological activity;</li><li>• carry out coordination and scientific and methodological support of work to ensure the uniformity of measurements in the relevant areas of activity;</li><li>• carry out conformity assessment of measuring instruments;</li></ul>
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	<ul style="list-style-type: none"> <li>• carry out calibration and verification of measuring instruments;</li> <li>• carry out measurements in the field of legal metrology;</li> <li>• maintain an information fund in the areas of their activities;</li> <li>• carry out international cooperation on issues within their competence.</li> </ul>
<b>2. Units</b>	<p>The units of the International System of Units (SI) are applied in Ukraine. Order of the Ministry of Economic Development and Trade of 08.04.2015 № 914 "On approval of definitions of basic SI units, names and definitions of SI derived units, decimal multiples and quotients of SI units, permitted non-system units, as well as their designations and the Rules for the use of units of measurement and for writing the names and designations of units of measurements and symbols of quantities" <a href="https://zakon.rada.gov.ua/laws/show/z1022-15?lang=en#Text">https://zakon.rada.gov.ua/laws/show/z1022-15?lang=en#Text</a></p>
<b>3. Law on Metrology</b>	<p>The Law of Ukraine "On Metrology and Metrological Activity" dated June 5, 2014 № 1314-VII <a href="https://zakon.rada.gov.ua/laws/show/1314-18#Text">https://zakon.rada.gov.ua/laws/show/1314-18#Text</a></p>
<b>4. List of MIs within the field of Legal Metrology or scope of state regulation</b>	<p><b>The scope of legal metrology includes the following activities:</b></p> <ul style="list-style-type: none"> <li>• ensuring the protection of the life and health of citizens;</li> <li>• quality control and safety of food products and medicines;</li> <li>• control of the environment state;</li> <li>• control of safety of working conditions;</li> <li>• control of road safety and technical condition of vehicles;</li> <li>• topographic and geodetic, cartographic and hydrometeorological work, work on land management;</li> <li>• trade and commercial transactions and settlements between the buyer (consumer) and the seller (supplier, manufacturer, performer), including in the provision of transport, household, utilities, telecommunications services, postal services, supply and/or consumption of energy and material resources (electrical and thermal energy, gas, water, oil products, etc.);</li> <li>• calculation of the amount of taxes and fees, tax and customs control;</li> <li>• work related to the determination of the parameters of buildings, structures and development areas;</li> <li>• work to ensure the technical protection of information in accordance with the law;</li> <li>• work on the use of equipment for global satellite navigation systems;</li> <li>• work performed on behalf of the pre-trial investigation bodies, prosecutors and courts;</li> <li>• registration of national and international sports records.</li> </ul> <p>The list of categories of legally regulated measuring instruments subject to periodic verification was approved by the Decree of the Cabinet of Ministers of Ukraine dated June 4, 2015 № 374 <a href="https://zakon.rada.gov.ua/laws/show/374-2015-%D0%BF?lang=uk#Text">https://zakon.rada.gov.ua/laws/show/374-2015-%D0%BF?lang=uk#Text</a></p>
<b>5. Type approval</b>	<p>Ukrainian legislation does not provide for the type approval of the of measuring instruments. A conformity assessment of measuring instruments with the requirements of technical regulations is provided.</p> <p>Ukraine is a corresponding member of the OIML.</p> <p>Currently Ukraine does not take part in the OIML Certification System.</p>
<b>6. Verification</b>	<p><b>6.1 Legal and technical requirements for initial and periodic verification</b></p> <p>Legally regulated measuring instruments in operation are subject to periodic verification and verification after repair.</p> <p>For legally regulated measuring instruments in operation, extraordinary, expert and inspection verification can also be carried out. Carrying out the initial verification of measuring instruments is not provided for by the legislation of Ukraine.</p> <p>The procedure for the verification of legally regulated measuring instruments in operation and the registration of its results is established by Order of the Ministry of Economic</p>

Development and Trade dated February 08, 2016 № 193

<https://zakon.rada.gov.ua/laws/show/z0278-16#Text>

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<https://zakon.rada.gov.ua/laws/show/374-2015-%D0%BF?lang=uk#Text>

Verification intervals of legally regulated measuring instruments were approved by Order of the Ministry of Economic Development and Trade dated October 13, 2016 № 1747

<https://zakon.rada.gov.ua/laws/show/z1417-16#Text>

The positive results of periodic, extraordinary verifications and verification after repair of measuring instruments are certified by an imprint of a verification mark on a measuring instrument or a record with an imprint of a verification mark in the relevant section of operational documents and/or a verification certificate is issued. For measuring instruments that are recognized by the results of verification as such that do not meet the established requirements, a certificate of unsuitability is drawn up.

### **6.2 Bodies for verification**

The verification of legally regulated measuring instruments in operation is carried out:

- scientific metrological centers that have internationally recognized calibration and measurement capabilities for the relevant types and subspecies of measurements, and/or using national standards;
- scientific metrological centers, metrological centers and verification laboratories, authorized to carry out verification of the corresponding instruments.

Authorization body for the verification of legally regulated measuring instruments in operation is the Ministry of Economy.

The procedure for issuing a certificate of authorization is regulated by the Decree of the Cabinet of Ministers of Ukraine dated February 24, 2016 № 117

<https://zakon.rada.gov.ua/laws/show/117-2016-%D0%BF#Text>

### **6.3 Verification periods for 20 Categories of Measuring Instruments**

Verification periods of legally regulated measuring instruments were approved by Order of the Ministry of Economic Development and Trade dated October 13, 2016 № 1747

<https://zakon.rada.gov.ua/laws/show/z1417-16#Text>

Verification periods (in years) for the following 20 categories of Measuring Instruments:

induction based Ferraris electricity meters	4-16
electronic electricity meters	6-16
diaphragm gas meter for households	2-8
mechanical water meters for households	4
heat meters	4
weights	1-2
non-automatic weighing instruments	1-1,5
automatic weighing instruments	1
truck scales	1
thermometers filled with liquid	2-3
clinical thermometers	1-3
thermometers for pipelines and storage tanks	1
mechanical length measuring instruments	1,5
capacity serving measures	unlimited
metal storage-jar	1
fuel dispensers	1
speed measuring instruments (e.g. speed radars)	1
taximeters	1
breath alcohol analyzers	1
grain moisture meters	1

	<p><b>6.4 Other national verification requirements</b></p> <p>-</p>
<p><b>7. Conformity assessment for MIs</b></p>	<p><b>7.1 Brief description of the system</b></p> <p>In Ukraine, the conformity assessment of measuring instruments is carried out in accordance with the Law of Ukraine "On Metrology and Metrological Activity" and the Law of Ukraine "On Technical Regulations and Conformity Assessment".</p> <p>Requirements for the categories of measuring instruments are established in three technical regulations:</p> <ul style="list-style-type: none"> <li>• Technical regulation for non-automatic weighing instruments (developed on the basis of Directive 2014/31/EU of the European Parliament and of the Council of February 26, 2014)  <a href="https://zakon.rada.gov.ua/laws/show/1062-2015-%D0%BF#Text">https://zakon.rada.gov.ua/laws/show/1062-2015-%D0%BF#Text</a></li> <li>• Technical Regulations for Measuring Instruments (developed on the basis of Directive 2014/32/EU of the European Parliament and of the Council of February 26, 2014)  <a href="https://zakon.rada.gov.ua/laws/show/163-2016-%D0%BF#Text">https://zakon.rada.gov.ua/laws/show/163-2016-%D0%BF#Text</a></li> <li>• Technical regulations for legally regulated measuring instruments  <a href="https://zakon.rada.gov.ua/laws/show/94-2016-%D0%BF#Text">https://zakon.rada.gov.ua/laws/show/94-2016-%D0%BF#Text</a></li> </ul> <p><b>7.2 Conformity Assessment Bodies</b></p> <p>Conformity assessment bodies for measuring instruments are appointed by the Ministry of Economy based on the results of the applicant's accreditation for compliance with the requirements of DSTU EN ISO/IEC 17065 by the National Accreditation Agency of Ukraine.</p>
<p><b>8. Prepackages</b></p>	<p><b>8.1 Legal Requirements for Controlling prepackages</b></p> <p>Metrological supervision over the amount of prepackages is subject to finished packages of any kind during the filling and sale of products in the case when the content of such packages cannot be changed without opening or deforming them, and the quantity of products is indicated in units of mass, volume or other physical quantity. The packaging of prepackages must indicate the nominal quantity of products in units of mass, volume or other physical quantity, unless otherwise provided by regulatory legal acts, and in cases established by regulatory legal acts – also other information in accordance with the metrological requirements for the corresponding prepackages.</p> <p><b>8.2 Documents Establishing Requirements for packaged products</b></p> <ul style="list-style-type: none"> <li>• the Technical Regulation for some goods that are packed by weight and volume into finished packaging (developed on the basis of Directive 76/211/EEC of 20 January 1976);  <a href="https://zakon.rada.gov.ua/laws/show/1193-2015-%D0%BF#n11">https://zakon.rada.gov.ua/laws/show/1193-2015-%D0%BF#n11</a></li> <li>• the Technical Regulation on bottles used as measuring containers (developed on the basis of Directive 75/107/EEC of 19 December 1974);  <a href="https://zakon.rada.gov.ua/laws/show/607-2015-%D0%BF#n11">https://zakon.rada.gov.ua/laws/show/607-2015-%D0%BF#n11</a></li> <li>• Order of the Ministry of Economic Development and Trade of 5 July 2017 № 969 “On the establishment of metrological requirements for prepackaged products”  <a href="https://zakon.rada.gov.ua/laws/show/z0934-17#Text">https://zakon.rada.gov.ua/laws/show/z0934-17#Text</a></li> </ul> <p><b>8.3 Bodies in charge of control of packaged products</b></p> <p>State Service of Ukraine for Food Safety and Consumer Protection (SSUFSCP).</p> <p><b>8.4 Other national requirements for packaged products</b></p> <p>-</p>
<p><b>9. Metrological supervision</b></p>	<p>The central executive body implementing the state policy in the field of metrological supervision is the State Service of Ukraine for Food Safety and Consumer Protection (SSUFSCP).</p>

	<p>SSUFSCP, carrying out metrological supervision:</p> <ul style="list-style-type: none"> <li>• checks the activities of business entities to ensure that they comply with the requirements of the law, technical regulations and other regulatory legal acts in the field of metrology and metrological activity;</li> <li>• submits legally regulated measuring instruments in operation for inspection verification in cases stipulated by legislation;</li> <li>• checks the quantity of prepackaged products in packages during their packing and sale;</li> <li>• in case of violation of metrological requirements: <ul style="list-style-type: none"> <li>- prohibits the use and release from repair of legally regulated measuring instruments that are in operation until the violation of metrological requirements is eliminated;</li> <li>- cancels the results of verification of legally regulated measuring instruments in operation;</li> <li>- issues prescriptions and sets deadlines for elimination of violations of metrological requirements;</li> <li>- prohibits the sale of lots of prepackaged products, from which samples of packaging of prepackaged products were taken, until the violation of metrological requirements is eliminated;</li> <li>- takes, in the manner prescribed by law, measures to bring persons guilty of violations to justice;</li> <li>- submits to the Ministry for Development of Economy, Trade and Agriculture of Ukraine proposals on the cancellation of certificates of authorization;</li> <li>- sends materials on violations of metrological requirements to law enforcement agencies in cases stipulated by law;</li> </ul> </li> <li>• exercise other powers determined by laws and assigned to him by acts of the Cabinet of Ministers of Ukraine.</li> </ul>
<p><b>10. Legal metrology practitioners</b></p>	<p>Requirements for the personnel responsible for the verification of legally regulated measuring instruments are established by Order of the Ministry of Economic Development, Trade and Agriculture of Ukraine dated June 30, 2020 № 1242 "Some questions regarding the issuance of certificates of authorization for the verification of measuring instruments that are in operation and are used in the field of legal metrology"</p> <p><a href="https://zakon.rada.gov.ua/laws/show/z0862-20#n10">https://zakon.rada.gov.ua/laws/show/z0862-20#n10</a></p>
<p><b>11. Sanctions</b></p>	<p>Sanctions for violation of legislation in the scope of metrology and metrological activity are provided for by Articles 171, 172, 188<sup>9</sup> and 188<sup>44</sup> of the Code of Ukraine about Administrative Offenses</p> <p><a href="https://zakon.rada.gov.ua/laws/show/80731-10#Text">https://zakon.rada.gov.ua/laws/show/80731-10#Text</a></p>