Legal Metrology in Belarus

(in view of the revised Law of the Republic of Belarus "On Ensuring the Uniformity of Measurements" (Law as amended of 11.11.2019 №254-3), effective as of 11.11.2020)

1. Organizational structure in LM	1. The State Committee for Standardization of the Republic of Belarus (Gosstandart) is a public administration body, responsible for maintaining the common state policy on the matters of ensuring the uniformity of measurements, as well as coordination of activities, related to the creation and operation of the System of Ensuring the Uniformity of Measurements of the Republic of Belarus, and also responsible for: • ensuring the establishment and operation of the state metrology service; • making proposals to the Council of Ministers of the Republic of Belarus on the allowance for application of the quantity units in the Republic of Belarus; • setting requirements to national measurement standards (NSs) of quantity units and measurement standards of quantity units, as well as rules for their development, approval, update and maintenance; approval of NSs; • setting requirements for measurement techniques (methods) to be applied in measurements in legal metrology (LM), for rules of their development and application; • performing state metrological supervision in accordance with the legislation on control (supervisory) activities; • identification of a legal entity to act as the national metrology institute and a body for accreditation of legal entities (LEs) and sole proprietors (SPs), performing verification and (or) calibration; • approving the regulation on the authorization and authorization of LEs, belonging to the state metrology service, for testing for the purpose of approval of the type of a measuring instrument (MI) or reference material (RM), for performing works on the metrological test in the field of LM and other LEs for performing state verification; • approving the requirements to be met by the LEs, which perform state verification and (or) calibration of MIs, used in measurements in LM; • approving the accreditation rules, which regulate procedures and other issues of accreditation of LEs and SPs, performing verification and (or) calibration; • approval of criteria and procedure for assigning technical devices to MIs; • approval of the rules for conducting metrological audit; • making decisions on assigning technical devices to measuring instruments; • defining the form of metrological traceability in approving NSs and in approving the type of a MI; • representation of the Republic of Belarus in international organizations on metrology as the national body on metrology etc. within the scope of its powers. Note: other authorities of Gosstandart are given hereinafter in the sections below. 2. The State metrology service is established by Gosstandart and includes the national metrology institute (NMI) and Centers for Standardization, Metrology and Certification (CSMC) , subordinate to Gosstandart, located in 6 regions of the Republic (15 organizations, including BelGIM, in total) and authorized by it for performing works on the metrological test in the field of LM. 3. Belarusian State Institute of Metrology (BelGIM) was appointed as the NMI, responsible for : • conducting fundamental and applied scientific research in metrology; • preparing and upgrading NSs (under state programs and innovative projects); • examination of measurement standards of quantity units and submission of measurement standards for approval as NSs based on the results of examination; • maintenance of NSs, organization of comparisons of NSs with international measurement standards of quantity units or with NSs of foreign states, ensuring the verification and (or) calibration of NSs; • performing works on the recognition of NSs by foreign states; • preparation and issue of recommendations in the field of metrology; • coordination and scientific and methodological support of comparisons of measurement results; • creation and maintenance of the State Information Fund for ensuring the uniformity of

	measurements, cooperation with the media on the issues of ensuring the uniformity of measurements; • participation in the work of international and regional organizations on metrology within the scope of the powers, specified by Gosstandart. 4. For ensuring the uniformity of measurements metrology services of public authorities, of legal entities, subordinate to public authorities, and of other legal entities can be established in the Republic of Belarus. 5. Gosstandart organizes the creation and maintenance of the State Information Fund for ensuring the uniformity of measurements: http://www.oei.by 6. Gosstandart has a system for training and retraining of experts in the field of metrology.
2. Units	The units of the International System of Units (SI) are applied in the Republic of Belarus.
3. Law on metrology	Law of the Republic of Belarus of September 5, 1995 No. 3848-XII "On Ensuring the Uniformity of Measurements" (Law as amended of 11.11.2019 №254-3) http://www.pravo.by/document/?guid=12551&p0=H11900254&p1=1&p5=0. *In elaboration of a new version of the Law draft normative legal acts of Gosstandart have currently been prepared (hereinafter shown in italics).*
4. List of MIs within the field of Legal Metrology or scope of state regulation	1. State regulation is carried out in LM, which applies to measurements, made in: – conducting the trade and transactions between a buyer (consumer) and seller (supplier, manufacturer, provider) in the supply and (or) consumption of material resources (electric power and heat energy, gas, water, oil and oil products, other resources), as well as in rendering transport, housing and public utilities, postage services and telecommunication services, other services subject to state regulation; – carrying out works on the assessment of conformity with technical requirements; – carrying out works on technical inventory, checking the characteristics of real estate; – carrying out actions, related to the implementation of legal rules on administrative offences and administrative liability or law on criminal liability; – determining the tax base; – carrying out customs operations, banking operations, operations with the values of the State Fund of Precious Metals and Precious Stones of the Republic of Belarus; – providing protection of the human life and health, providing medical assistance, ensuring occupational safety ; – carrying out control and diagnostic works on the inspection of the technical condition and design of vehicles in conducting state technical inspection, diagnosing the technical condition of vehicles, ensuring the traffic safety of all means of transport; – ensuring industrial safety, safe transportation of dangerous goods, fire, nuclear and radiation safety, protection of the population and territories from natural and man-made disasters; – carrying out geodetic and mapping activities; – providing the defense and security of the State; – providing environmental protection and natural resources management, carrying out hydrometeorological activities; – carrying out examination of goods (results of the performed works, rendered services), reliability of the provided information about the goods (work, service), examination in conducting forensic activities, state sanitary and hygienic examination, veterinary and hygienic examination, customs examination, precious metals examination, examination for electromagnetic compatibility of radioelectronic equipment and (or) high-frequency devices, examination of industrial safety, metrological examination; – determining the quantity of prepackages; – carrying out state metrological supervision; – holding official sporting competitions, registering records of the Republic of Belarus, set by athletes during sports events. 2.MIs, which LEs use in their activities, are subject to **obligatory metrological test** in the form of type approval, metrological examination, verification and calibration. 3. Metrological test and examination of MIs in LM are carried out by LEs of SMS, authorized by Gosstandart; beyond LM – by accredited and other laboratories, subdivisions or individual employees of LEs.

5. Type approval

5.1 Legal and technical requirements for type approval

1.Requirements for type approval (TA) are set in a normative act of Gosstandart *(draft Resolution «Rules for conducting metrological test»).*

2. MIs, intended to be used in measurements in the field of LM and given in the List of MIs (see 6.3) and RMs, intended to be used in measurements in the field of LM, shall be subject to type approval of MIs or RMs.

3. Type approval of MIs or RMs shall be carried out based on positive results of tests or metrological examination for type approval or MIs or RMs.

5.2 Bodies, responsible for type approval

Gosstandart makes decisions (resolutions) on type approval of MIs and RMs and issue of certificates of type approval of MIs and RMs.

5.3 Bodies, responsible for testing for type approval

Testing for type approval of MIs or RMs shall be performed by the authorized testing laboratories of the LE of SMS (currently structural subdivisions of BelGIM, of Brest, Vitebsk, Gomel, Grodno and Mogilev CSMCs).

5.4 Recognition of OIML certificates

Belarus is a full OIML member.

Currently Belarus does not take part in the OIML Certification System.

6. Verification

6.1 Legal and technical requirements for initial and periodic verification

Requirements for verification arrangements are set in a normative act of Gosstandart *(draft Resolution «Rules for conducting metrological test»).*

1. In type approval of MIs the compliance of the time interval between state verifications with the interval given in the Resolution of Gosstandart (see 6.3) shall be determined, and the procedure for verification of MIs of the type being approved shall be adopted.

2. Verification shall be carried out before the sale of MIs, as well as during their operation.

3. The results of the verification shall be certified by a certificate of verification and (or) by applying a verification mark to the MI, or if this is not practicable, to its operating documentation.

6.2 Bodies for verification

1. State verification shall be performed by LEs, authorized by Gosstandart for performing state verification, from among LEs, accredited in accordance with accreditation rules for verification. In this case state verification shall be performed directly by state verification officers.

2. Verification, except for state verification, can be performed by LEs and SPs with regard to MIs, used in measurements beyond the field of LM. In this case verification shall be performed directly by verification officers.

6.3 RVIs for 20 categories of MIs

1. Currently the general list of categories of MIs and RVIs is given in the Resolution of Gosstandart of 16.03.2007 № 17 "On approving the list of areas in the field of legal metrology". Valid intervals are set for a particular approved type of MIs and are given in the State Register of Measuring Instruments of the Republic of Belarus (www.oei.by).

2. In the Republic of Belarus the following RVIs (years) are currently valid for the following 20 categories of MIs:

1. induction based Ferraris electricity meters	8 or 4
- single phase meters	8
- three phase meters	4
2. electronic electricity meters	8
- single phase meters	8
- three phase meters	8
3. diaphragm gas meters for households	8
4. mechanical water meters for households	4 or 5
5. heat meters	1 or 2 or 4
6. weights	1
7. non-automatic weighing instruments	1
8. automatic weighing instruments	1
9. truck scales	0,5 or 1
10 thermometers filled with liquid	4
11. clinical thermometers	1 or 2
12. thermometers in pipes and storage tanks	1 or 2

	13. mechanical length measuring instruments	1
	14. capacity serving measures	unlimited (initial verification when releasing from production)
	15. metal storage-jar	1 or 2
	16. fuel dispensers	1
	17. speed measuring instruments (e.g. speed radars)	0,5 or 1
	18. taximeters	1
	19. breath alcolhol analyzers	0,5 or 1
	20. grain moisture meters	1

A draft Resolution of Gosstandart "List of categories of measuring instruments, constituting a range of measuring instruments having the same intended use and applied in measurements in the field of legal metrology, specimens of the approved types of which are subject to state verification with a set frequency" was prepared.
RVIs for more than 170 categories of MIs in LM will be legally established.

6.4 Other national requirements for verification
MIs in the field of LM are subject to registration upon their state verification in accordance with the rules of metrological test.

7.Conformity assessment for MIs

7.1 Brief description of the system
7.2 Bodies for assessment of conformity with the type
In the Republic of Belarus the assessment of conformity does not currently apply to measuring instruments (by analogy with Directives 2014/31/EU (NAWID) and 2014/32/EU (MID).
The assessment of conformity of MIs is performed for conformity with the requirements of the applicable technical regulations of the Customs Union (TR TS 004, TR TS 020, TR TS 012).
Note: For other countries information under directives 2014/31/EU (NAWID) and 2014/32/EU (MID) or other national requirements can be given.

8.Prepackages

8.1 Legal requirements for controlling prepackages
State regulation applies to measurements, made in determining the quantity of prepackages.
Gosstandart sets the requirements for determining the quantity of prepackages, inter alia for the rules of its indication on the package during the production (prepackaging) and (or) sale of prepackages.

8.2 Documents, setting requirements for prepackages
- *Draft Resolution of Gosstandart "On approving the instruction on setting requirements for determining the quantity of prepackages, inter alia for the rules of its indication on the package during the production (prepackaging) and (or) sale of prepackages"*
- STB 8019-2002 "System for ensuring the uniformity of measurements of the Republic of Belarus. Prepackages. General requirements for the quantity of goods";
- STB 8020-2002 "System for ensuring the uniformity of measurements of the Republic of Belarus. Prepackages. General requirements for controlling the quantity of goods".

8.3 Bodies, involved in control of prepackages
In conducting state metrological supervision of compliance with requirements for prepackages – Inspectorates of state metrological supervision of Gosstandart and accredited testing laboratories of SMS.

8.4 Other national requirements for prepackages
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9. Metrological supervision	1.State metrological supervision shall be conducted by Gosstandart and Inspectorates of state metrological supervision of compliance with the requirements of technical regulations and standards and state metrological supervision of Gosstandart (hereinafter – bodies of state metrological supervision) in the form of random inspections, unscheduled inspections, preventive and precautionary measures. Gosstandart plans, organizes and coordinates work of the bodies of state metrological supervision when conducting state metrological supervision. 2. State metrological supervision is conducted by officials of the bodies of state metrological supervision, who are state verification officers, certified in accordance with the procedure, established by Gosstandart. *A draft Resolution of Gosstandart "On approving the certification procedure for state inspectors for state metrological supervision" was prepared.* 3. Entities, subject to state metrological supervision, are organizations, their separate subdivisions, having a payer's identification number, representative offices of foreign organizations, SPs and other entities, defined by the President of the Republic of Belarus, involved in relationships in the field of ensuring the uniformity of measurements, regulated by the legislation on ensuring the uniformity of measurements. 4. State metrological supervision shall be conducted in accordance with the procedure, established by legal acts, and includes state metrological supervision of: – application of units; – application of measurement standards of units; – application of MIs and RMs; – application of measurement procedures (methods); – activities of LEs and SPs on production, sale, lease, including rent, of MIs and RMs; – conducting works on the assessment of competence of LEs and SPs, involved in metrological testing; – conducting works for type approval of MIs and RMs, as well as metrological examination of single specimens of MIs and RMs, intended for use in measurements in the field of LM, results of their theoretical and experimental research for type approval of a single specimen of MIs or RMs; – performing verification, calibration, certification of measurement procedures (methods); – testing and making measurements in carrying out works on the assessment of conformity with technical requirements; – meeting the requirements for prepackages; – meeting other requirements in cases, specified in legal acts. The procedure for state metrological supervision was established by a decree of the President of the Republic of Belarus of 16.10.2009 № 510 "On improving control (supervisory) activities in the Republic of Belarus".
10. Legal metrology practitioners	Verification in legal metrology shall be performed by state verification officers, who underwent the obligatory confirmation of conformity for the staff's competence. Gosstandart approves the requirements for the competence of state verification officers (*A draft Resolution of Gosstandart "On the requirements to be met by legal entities, performing state verification and (or) calibration of measuring instruments, used in measurements in the field of legal metrology"*) was prepared. The total number of experts of the Republic of Belarus, involved in testing for type approval of MIs and RMs, metrological examination, and verification of MIs in LM, amounts to about 700. *Note: when required, separate statistics for various types of activities can be provided*

11. Sanctions	Code of Administrative Offences of the Republic of Belarus of 21 April 2003 № 194-3 (as amended): Article 23.13. Violation of requirements in the field of ensuring the uniformity of measurements 1. Release, including sale, lease of MIs intended to be used in the field of LM, which did not undergo verification or calibration in accordance with the established procedure, shall result in a warning or imposition of a fine of 10 to 30 base values, and for a sole proprietor or legal entity – a warning or imposition of a fine of up to 100% of the value of the sold products (performed works, rendered services), and if it cannot be identified – up to 500 base values. 2. Use in the field of LM of faulty MIs, MIs, which did not undergo verification or calibration in accordance with the established procedure, violation of measurement procedures or rules of MI use, shall result in a warning or imposition of a fine of 10 to 30 base values. *These provisions are currently being specified in view of the new version of the Law of the Republic of Belarus "On Ensuring the Uniformity of Measurements".*