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REFORMS IN THE FIELD OF METROLOGY AND ITS IMPORTANCE TODAY

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ABSTRACT

The meteorological service of the state administration bodies of the republic will be introduced (it used to consist of the state meteorological service and the metrological services of legal entities). They are organized in necessary cases to ensure the uniformity of measurements and to carry out metrological control. This article describes the work and reforms carried out in the system for the further development and improvement of work in the field of metrology in our country.

KEYWORDS

Metrology, state metrology service, metrological traceability, measurement accuracy indicator, packaged goods.

INTRODUCTION

One of today's urgent issues of further development of our country's economy is to increase the export potential of our country. The role of metrology in solving this issue is unique. Ensuring that the results of measurements conducted in the country are

recognized by other countries in order to facilitate international trade is considered the main basis of this issue. Recognition of certificates issued in our republic by other countries will create convenience for exporters and reduce the price of export products.

With the passage of time, the improvement of the fields and the perfection of the requirements for them is being observed at the international level. This made it necessary to revise the Laws affecting the sectors. On April 7, 2020, on amendments and additions to the Law of the Republic of Uzbekistan "On Metrology" ORQ-614- number of the Law of the Republic of Uzbekistan was signed and based on it, the new Law of the Republic of Uzbekistan "On Metrology" was adopted.

Harmonization of the Law of the Republic of Uzbekistan "On Metrology" with the requirements of international documents in the field of metrology and the norms of the Law with international requirements, in particular the international document D1 "Elements of law on metrology" of the International Legislative Metrology Organization (Chapter III) and was developed in order to harmonize with the provisions of the basic interstate documents in the field of ensuring the unity of measurements.

In order to ensure uniform interpretation in the current Law "On Metrology", the main concepts are supplemented with terms such as "state metrology service", "metrological traceability", "measurement accuracy indicator". With the introduction of such terms, the definition of the terms "comparison of measuring instruments" and "metrology service" has been changed.

In addition, the rights to carry out metrology control by subjects operating in the field of measurement unit provision, in particular, the state metrology service, metrology services of state administration bodies, and metrology services of legal entities, were established. Also, the rights and obligations of metrology services were strengthened in separate articles.

In order to harmonize the norms of the law with the rules of international documents in the field of metrology, a new term "packaged goods" was introduced, state metrology inspection and control with a new object called "packaged goods", as well as their number in the packaging and sale of goods packaged in any type of packaging was supplemented with a new article regulating state metrology control.

Also, until 2018, there were 12 standards used in the national standard base of the Republic of Uzbekistan to ensure the traceability of high-precision measuring instruments and metrological control, and by now their number has reached 29. With the help of standards, metrological control of more than 511 high-precision measuring instruments is provided in the fields of engineering, healthcare, mining, metallurgy, aviation, light industry, atomic energy, and the chemical industry of the Republic.

However, due to the lack of technical capabilities 1144 standard measuring instruments (76 units of the Technical Regulatory Agency and 1068 units of

enterprises) are being taken to foreign metrology institutes for calibration in order to ensure traceability.

Based on the decision of the President of the Republic of Uzbekistan No. PQ-2935 dated April 28, 2017, it was planned to purchase 21 standards worth 5808 thousand US dollars in the period of 2018-2022 in order to cover the needs of the industry more widely. This, in turn, made it possible to cover metrological control over additional 2122 sample measuring instruments.

In order to ensure the implementation of this decision, in 2018, 5 units worth 754,490.13 thousand US dollars ("Sample force measuring equipment", Absolute pressure unit" and "Pressure (excess) unit", "Used for reference purposes" "Platinum resistance thermometers" and "Example interference device for certification of bar length measurement") standards were purchased and installed in laboratories.

Article 12 of the Law specifies the powers of the metrology services of the executive authorities and economic management bodies of the Republic and the metrology services of legal entities, that is, the metrology services of the executive authorities and economic management bodies of the Republic:

- compares and calibrates measuring instruments with accreditation;

- it was determined that drafts of normative documents will be developed to ensure that measurements are in a single unit.

Metrology services of legal entities: - calibration of measuring instruments with accreditation and metrology services of accredited national metrology institute of Uzbekistan, executive authorities and economic management bodies of the Republic, as well as Article 25 of this Law (Comparison of measuring instruments in the cases provided for in the fifth part of this article, it is carried out by the metrology services of legal entities) in the cases provided for, it was determined to perform the comparison of measuring instruments and to develop drafts of normative documents to ensure that measurements are in a single unit.

Article 26 of the law stipulates that calibration of measuring instruments shall be carried out by accredited metrology services.

In this article, when calibrating measuring instruments, the method of comparison of measuring instruments designed to determine the metrological characteristics of the measuring instrument is used, as well as the measurement used in areas other than those indicated in the second - tenth paragraphs of the first part of Article 20 of the Law it was determined that the tools can be calibrated during their production, sale, use, rental and repair.

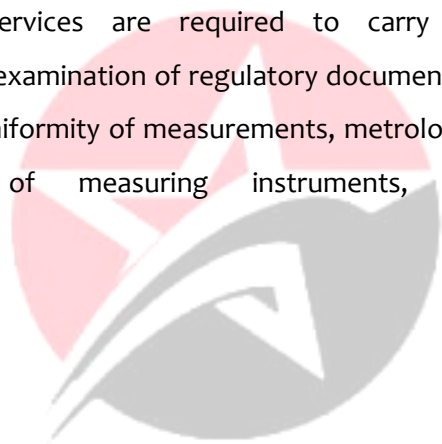
This article confirms that the results of the calibration of measuring instruments performed by an accredited metrology service can be used in the comparison of measuring instruments, and that it is allowed to establish metrology services on the basis of public-private partnership for the calibration of measuring instruments.

Article 28 of the law specifies the accreditation of metrology services to have the right to perform metrology works and services, according to which metrology services are required to carry out metrological examination of regulatory documents to ensure the uniformity of measurements, metrological attestation of measuring instruments, test

instruments, methods of performing measurements that can be used and used in the fields provided for in Article 20 of this Law, attestation of test instruments, comparison and calibration of measuring instruments and in order to have the right to conduct the test, accreditation is carried out in accordance with the procedure established by law.

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