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*Honchar L. A.<sup>a</sup>, Harmider L. D.<sup>a</sup>, Chimshit S. I.<sup>a</sup>, Serhieieva O. R.<sup>b</sup>***TECHNICAL REGULATION IN MODERN CONDITIONS**<sup>a</sup>Ukrainian State University of Science and Technologies, Ukraine<sup>b</sup>Alfred Nobel University Dnipro, Ukraine

Technical regulation significantly affects the quality of products, the productivity of social production and plays a significant role in managing the economy in general, as it combines fundamental and applied sciences and helps to determine the most promising directions of development of the country's economic sectors. In addition, technical regulation contributes to the protection of the domestic market and the expansion of the external market, which is a stimulator of the development of national production and the expansion of foreign economic activity and international cooperation. The need to improve technical regulation is due to the intensity of integration processes and globalization, which contributed to the development of international trade, international tourism, capital movements, and an increase in the imports and exports volume. Therefore, consideration of the system of technical regulation in our country and its components is a significant and relevant issue. The system of technical regulation in Ukraine is formed from standardization, metrology, conformity assessment and accreditation of conformity assessment authorities. The article proves the importance of standardization as a basis for regulating economic relations, which combines legal aspects of product safety and methods and means of ensuring their compliance. Metrology is considered as a science of measurement that operates on facts, and its role in improving the quality of products is determined. It has been studied that conformity assessment is carried out independently, both on a voluntary basis and with the involvement of relevant authorities, therefore the process of technical regulation slows down, which leads to lack of control and the emergence of problems, both at the level of entrepreneurial activity and the national system.

**Keywords:** technical regulation, product quality and safety, standardization, metrology, conformity assessment, technical regulations, problems of the technical regulation system.

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***Problem statement***

The access and implementation of modern technologies, the growth of the consumption of material goods, the limited amount of natural resources and the digitalization of the economy of Ukraine in the conditions of European integration forces to improve the system of technical regulation to control the processes of production of goods alongside with work performance and provision of services, since the main task of developed countries is to prevent the production and entering the market of products,

dangerous for human life, health and environment.

***Analysis and research of publications***

Sufficient amount of attention was paid to technical regulation in Ukraine, and issues of safety and quality of products, performance and services were considered in the works of N.V. Prytul'ska, Y.M. Motuzka, T.V. Melnyk, K.V. Kopylova, S.B. Verbytska, O.V. Verbova, O.B. Kozachenko, T.M. Artyukh, I.V. Hrigorenko and other scientists [1-4]. The specificity of technical regulation creates difficulties in the formation of its mechanism, which

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*Honchar L. A., Harmider L. D., Chimshit S. I., Serhieieva O. R.*

makes it impossible for the system of establishing safety requirements for products to function effectively, creating problems in practice, therefore their consideration and elimination remains a relevant and unresolved issue.

***The purpose of the article***

The purpose of the study is to consider the system of technical regulation in modern conditions of the national economy development.

***Statement of the main material***

The historical development of mankind shows that no society can exist without a system of technical regulation, which combines standardization, metrology and conformity assessment and regulates rules, processes, methods of manufacturing and product control that protects consumers from low-quality products and supports fair competition.

For the first time, the concept of technical regulation was defined in the Law of Ukraine «On Standards, Technical Regulations and Conformity Assessment Procedures», the essence of which was the legal regulation of relations in the field of establishment, application and fulfillment of mandatory requirements for products or related processes, systems and services, personnel and authorities, as well as verifying their compliance through conformity assessment and/or market surveillance. Subsequently, the Law of Ukraine «On Technical Regulations and Conformity Assessment» established requirements for the food and non-food products safety and requirements for the organization of the technical regulation process. Later, in connection with the signing of the Agreement on the Assessment of Conformity and Acceptability of Industrial Products (ACAA), the existing system of technical regulation was reformed, which involved the introduction of European requirements for product quality indicators and their production processes and methods in the production sectors.

Having considered the system of technical regulation in Ukraine, it should be noted that its components are standardization, metrology and conformity assessment (of goods, performance and services), the actions of which are regulated by updated legislative acts.

Standardization is the first component and is a complex process that combines science, technology and production, contributes to the provision of a unified technical policy in various branches of the national economy and is directly regulated by the Law of Ukraine “On Standardization” [5].

The purpose of standardization is to establish provisions that ensure:

- conformity of standardization objects to their

purpose; diversity management, compatibility and interchangeability of standardization objects;

- rational production by applying recognized rules, guidelines and procedures; protection of life, health, rights and interests of consumers and their safety at work;

- preservation of the natural environment and saving of all types of resources;

- elimination of technical barriers to trade and prevention of their occurrence;

- supporting the development and international competitiveness of products.

Therefore, the main condition for achieving the goal of standardization is

- development, implementation and application of regulatory and technical documentation, where the state policy should ensure the participation of business entities in the development of national standards and codes of established practice and their voluntary application;

- openness and transparency of this process;

- introduction of innovations;

- availability of national standards;

- acceptance of international and national standards as national;

- participation in international standardization and compliance by standardization entities with the Code of Good Practice in accordance with the World Trade Organization Agreement on Technical Barriers to Trade.

Thus, standardization establishes provisions for general and repeated use in the performance of any tasks and is aimed not only at achieving the optimal degree of orderliness in a certain field of activity, but also at the daily social life.

Metrology or metrological support is the second component of technical regulation, which involves the establishment and application of metrological norms and rules as well as the development, production and application of technical means necessary to achieve unity and accuracy of measurements. With the transition to the use of modern information and measurement systems, problems related to the unity of measurements may arise.

Quality management at production enterprises is carried out with the help of metrological measurements, which helps to obtain information about the compliance of raw materials and materials with established quality indicators, the financial capacity of the enterprise, the safety of products and technological processes, as well as the safety and health protection of people and the condition of the environment.

Therefore, in order to create an effective system of control over metrological support at the enterprise

so as to produce products of appropriate quality with high consumer properties, it is necessary to systematically evaluate:

- correct selection of controlled parameters and their compliance with the state system of measurement unity;
- legitimacy and competence of the metrological service of the enterprise;
- provision of the enterprise with the means and conditions for conducting measurements, analysis of the condition of measurements for the purpose of metrological examination and availability of regulatory and technical documentation in the field of metrology for all structural units of the enterprise.

Taking into account the complexity of metrological support, the adoption of the new version of the Law of Ukraine «On metrology and metrological activity» [6], multi-channel measuring systems and a large number of components, metrological support is gaining relevance today, and this requires updating the existing regulatory and technical documentation and creating a set of regulatory documents for all types of products, paying attention to each life cycle.

Conformity assessment is a process carried out at the enterprise by the manufacturer to demonstrate compliance with the requirements for:

- preventing the sale of products dangerous to the life and health of citizens and the environment;
- prevention of emergency situations of natural or man-made origin at national economic facilities;
- ensuring rational use of all types of resources;
- creation of favorable conditions for the participation of business entities in international cooperation and foreign economic activity [7].

Products are subject to conformity assessment at all stages of the life cycle, including the design and production stages.

Conformity assessment can be carried out both with the involvement of a third party and independently. Thus, the assessment of compliance without the involvement of a third party involves the independent implementation by the manufacturer of all the necessary control measures and the preparation of technical documentation certifying the compliance of the products and the production process with legislative acts.

Conformity assessment with the involvement of an internally accredited authority is carried out by an independent but functioning division of a manufacturing enterprise, which must confirm its level of technical competence and impartiality through accreditation. Therefore, each manufacturing enterprise tries to create its own, modernly equipped testing laboratories with sufficiently high competence, depending on innovativeness new products and for

the purpose of concealing scientific and technical knowledge regarding the testing of such products.

However, there may be the cases when the involvement of an external conformity assessment authority or a notified authority is necessary. The notified authority is appointed by the national authority, it applies conformity assessment procedures according to the requirements of technical harmonized legislation and must be impartial and fully independent from the manufacturing enterprise, as well as its products, which are subject to confirmation of conformity.

The procedure for confirming compliance in the legislative sphere is introduced by technical regulations and regulated by the Law of Ukraine “On technical regulations and assessment of compliance” [8].

Technical regulations are developed, adopted and applied based on the principles of the WTO Agreement “On Technical Barriers to Trade”, where the purpose of adopting technical regulations is to protect the life and health of people, animals and plants, protect the environment and natural resources, ensure energy efficiency, property protection, ensuring national security and preventing business practices that mislead the consumer.

The agreement “On Technical Barriers to Trade” covers such objects as labeling of food products, beverages and medicines; requirements for the quality and packaging of fresh food products; the unity of measurements that apply to technical regulations, standards and procedures for assessing compliance with technical regulations and standards.

Accreditation of conformity assessment authorities must certify their compliance with the requirements of national standards or the requirements of international or European standards for carrying out their activities, where accreditation is the provision of a unified technical policy in the field of conformity assessment, ensuring consumer trust in conformity assessment activities, creating conditions for mutual recognition of results activities of accredited authorities at the international level and elimination of technical barriers in trade.

Accreditation is carried out by the national accreditation authority of Ukraine, which can certify competence:

- testing and calibration laboratories;
- authorities for certification of products, processes and services;
- authorities for certification of quality systems, quality management systems, environmental management systems;
- personnel certification authorities;
- inspection authorities;
- versifiers, etc. [9].

Although the accreditation of conformity assessment authorities is voluntary, which helps to build trust and image in the service market, practice shows the importance of an accreditation certificate when choosing an organization. Therefore, there is a need to approve the same criteria of activity, both for regional accreditation authorities and national and international ones.

In connection with the globalization of the world economy and the possibility of Ukraine entering the European market, some issues may arise, relating to the reform of the technical regulation system and the harmonization of Ukrainian standards, which should include:

- lack of transparency of the technical regulation system;
- imperfect conformity assessment procedure and formalism at the state level;
- the procedure for creating a quality and product safety system at the enterprise is too expensive;
- lack of motivation and difficulties in the production of products according to the technical regulations of European countries.

### Conclusions

All things considered, technical regulation is becoming more and more important every year, as it is both a consequence and a tool for managing all processes in the world. Therefore, taking into account the importance of technical regulation for the economic development of our country, the main task of updating the existing system of technical regulation, in our opinion, is the harmonization of national standards with European requirements and norms in order to eliminate technical barriers and improve the quality, safety and competitiveness of consumer goods and food products as well as entering the international level by national Ukrainian producers.

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## ТЕХНІЧНЕ РЕГУЛЮВАННЯ В СУЧАСНИХ УМОВАХ

Гончар Л. А., Гармідер Л. Д., Чимшист С. І., Сергєєва О. Р.

Технічне регулювання суттєво впливає на якість продукції, продуктивність суспільного виробництва та відіграє значну роль в управлінні економікою взагалі, оскільки поєднує фундаментальні і прикладні науки та допомагає визначити найбільш перспективні напрями розвитку галузей економіки країни. Окрім того, технічне регулювання сприяє захисту внутрішнього ринку і розширенню зовнішнього, що є стимулятором розвитку національного виробництва й розширення зовнішньоекономічної діяльності та міжнародного співробітництва. Необхідність удосконалення технічного регулювання зумовлено інтенсивністю інтеграційних процесів і глобалізацією, що сприяло розвитку міжнародної торгівлі, міжнародного туризму, руху капіталів, підвищенню обсягу імпорту

та експорту. Тому розгляд системи технічного регулювання в нашій країні і його складових, є достатньо значущим питанням і актуальним. Система технічного регулювання в Україні сформована зі стандартизації, метрології, оцінки відповідності та акредитації органів з оцінки відповідності. У статті доведено значення стандартизації як основи регулювання господарських зв'язків, що поєднує правові аспекти безпечності продукції та способи і засоби забезпечення їх відповідності. Розглянуто метрологію як науку про вимірювання, що оперує фактами, та визначено її роль в підвищенні якості продукції. Досліджено, що оцінка відповідності проводиться самостійно, як на добровільних засадах, так із залученням відповідних органів, тому процес технічного регулювання уповільнюється, що призводить до безконтрольності і виникненню проблем, як на рівні підприємницької діяльності, так і на рівні національної системи.

**Keywords:** технічне регулювання; якість і безпечність продукції, стандартизація, метрологія, оцінка відповідності, технічний регламент, проблеми системи технічного регулювання.

#### TECHNICAL REGULATION IN MODERN CONDITIONS

Honchar L. A.<sup>a</sup>, Harmider L. D.<sup>a</sup>, Chimshit S. I.<sup>a</sup>, Serhieieva O. R.<sup>b</sup>

<sup>a</sup>Ukrainian State University of Science and Technologies, Ukraine

<sup>b</sup>Alfred Nobel University Dnipro, Ukraine

\*e-mail: gonchar.larisa.63@gmail.com

Honchar L. A. ORCID: <https://orcid.org/0000-0003-4847-3977>

Harmider L. D. ORCID: <https://orcid.org/0000-0001-7837-2734>

Chimshit S. I. ORCID ID: <https://orcid.org/0000-0002-0861-2226>

Serhieieva O. R. ORCID <https://orcid.org/0000-0003-4346-5425>

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