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FEATURES OF TRANSLATING STANDARDISED TEXTS

In the article the specific features of translating standardised technical texts are analysed in the context of their normative and regulatory functions in professional communication. Standardised documents play a key role in ensuring the safety, consistency and reproducibility of technological processes in various fields of technical activity. Unlike other types of specialised texts, standards are characterised by a rigid compositional structure, a strictly regulated terminology system and minimal admissible linguistic variability. Any inaccuracy or inconsistency in their translation may lead to technical errors, legal non-compliance and risks to industrial safety.

The article considers standards as a particular type of normative document functioning at the intersection of official-business and scientific-technical discourse. Special attention is paid to the linguistic characteristics of standardised texts that determine the specifics of their translation, including terminological precision, structural equivalence and stylistic normativity. The interdisciplinary nature of the concept of a standard within terminology studies, document science and translation studies is examined with reference to Ukrainian and international scholarly approaches.

A central focus of the study is the problem of linguistic variability in technical standards and its influence on translation equivalence. The article systematises the main types of variability observed in English-language standardised texts, such as orthographic, morphological, syntactic and derivational variants, and demonstrates that variability in normative documents constitutes not only a linguistic phenomenon but also a technical and legal risk. The analysis is carried out within the framework of adopting international standards as national documents, taking into account the conformity levels IDT, MOD and NEQ as defined by Ukrainian standardisation regulations.

It is argued that the translation of standards requires strict adherence to the principle “one term – one definition – one form”, systematic verification of terminology using international databases and harmonisation with national terminology systems. The article substantiates that the translator of standardised texts acts not merely as a linguistic intermediary but as an integral element of the regulatory infrastructure ensuring the accuracy, safety and effectiveness of technical communication. The results of the study may be applied in professional translation practice, technical standardisation and further research on the harmonisation of regulatory documents.

Keywords: *standardised texts, technical translation, terminological variability, regulatory documents, translation equivalence.*

Statement of the problem. In the context of globalisation, international technical cooperation and Ukraine's integration into the European regulatory space, the role of technical standards as normative documents has significantly increased. Standards function not only as sources of technical information but also as regulatory instruments that define mandatory requirements, procedures and parameters ensuring the safety, compatibility and quality of products and processes.

At the same time, the translation of standardised technical texts continues to be among the most challenging and least systematised domains of profes-

sional translation. Any inaccuracies or inconsistencies in the translation of standards may result in technical malfunctions, legal discrepancies, failure to meet certification requirements and increased risks to industrial safety.

The problem is aggravated by the need to harmonise Ukrainian standards with international and European ones, which requires a high degree of terminological unification, structural equivalence and stylistic consistency. Therefore, there is a need for a systematic linguistic study of standards as a special type of normative text and for identifying the key factors that influence their translation.



Analysis of recent research and publications.

The issue of standardised texts has been addressed in various branches of linguistics and translation studies. In Ukrainian scientific tradition, standards are analysed within terminology studies, document science and technical communication (M. Zarytskyi, O. Taranenko). These studies focus primarily on the normative nature of standards, their terminological systems and their role in professional communication.

Foreign researchers emphasise the genre-specific nature of standards. J. M. Swales classifies standards as highly conventionalised technical genres characterised by a stable compositional structure and strict functional orientation. C. Nord considers standards as instructional texts with a dominant regulatory function, which requires a functional approach to translation.

Technical translation as a high-risk and functionally critical activity has been analysed by J. Byrne, who stresses that even minor inaccuracies in technical translation can lead to serious safety and legal consequences. Scholars also highlight the importance of terminological consistency and minimal variability in regulatory documents, which is supported by ISO/IEC Directives and Electropedia guidelines.

However, despite the availability of theoretical research on technical translation and genre studies, insufficient attention has been paid to the linguistic variability of standardised texts and its impact on translation equivalence (IDT/MOD/NEQ). The issue of variability as a technical and legal risk remains underexplored, particularly in the context of harmonisation of Ukrainian national standards with international ones.

Task statement. The purpose of the article is to identify the key linguistic and structural characteristics of standardised technical texts that determine the specifics of their translation and to analyse the role of terminological variability in the process of translating international standards into Ukrainian. The study aims to substantiate the necessity of strict terminological unification and minimal variability in order to ensure regulatory accuracy, technical safety and conformity with international standardisation requirements.

Outline of the main material of the study. In Ukrainian scientific linguistics, the concept of a standard is interdisciplinary: it simultaneously belongs to terminology, document science, technical communication and translation studies.

A standard is a normative document based on consensus, adopted by a recognised body, which establishes rules, guidelines or characteristics for activities or their results for general and repeated use,

and is aimed at achieving an optimal degree of order in a particular field [1, p. 6].

A standard, as a normative and technical document, establishes a set of norms, rules, and requirements for the object of standardisation and is approved by a competent body [6, p. 54].

M. Zarytskyi defines a standard as a normative document that establishes the characteristics of a product of material or spiritual production. When it comes to material things, such normative documents establish the quantitative and qualitative characteristics of objects. As for intangible things or products of intellectual production, the task of standards is to provide terms and their definitions in the relevant field [3, p. 103].

Among foreign scholars, John M. Swales defines standards as *highly conventionalised genres*, which are formed on the basis of international professional practices and have a strict compositional structure [11, pp. 8–9].

Christiane Nord emphasises that standards belong to ‘instructional texts with a dominant regulatory function,’ where a functional approach to translation is decisive [9, p. 128].

A standard is a document that provides characteristics, requirements, and instructions that can be used to ensure that materials, products, processes, and services are fit for purpose [2, p. 7]. A standard is primarily of a recommendatory nature. Scientists emphasise that international standardisation has a significant impact on improving the safety and quality of products and services, optimising business processes by reducing the number of errors and production losses, and also contributes to expanding companies’ access to new markets and more active participation in global economic interaction.

Thus, the standard belongs to the category of normative and technical documents, the main purpose of which is to regulate the parameters, requirements, procedures and characteristics of technical activities. Its function is to establish unified rules that ensure the reproducibility of technological processes, the compatibility of materials and equipment, as well as the safety and quality of products. In this sense, the standard is not purely informational text: it acts as a regulatory instrument that defines the mandatory and recommended actions of participants in the technological process.

In the system of functional styles of the Ukrainian and English languages, standards occupy an intermediate but clearly defined place between official-business and scientific-technical styles. They are similar to the official-business style in their

normativity, categorical nature, clear imperative modality, lack of emotion and strict formalisation of presentation. Like other regulatory documents, standards use unambiguous wording, established linguistic constructions and a clearly defined compositional scheme.

At the same time, standards tend to be scientific and technical in style, as they contain specialised terminology, precise definitions, descriptions of technological processes, testing methods and technical characteristics. They are characterised by logical structure, objectivity of presentation, absence of evaluative vocabulary, and dependence of content on the professional field (oil and gas, mechanical engineering, construction, etc.).

In the English-language tradition, according to J. M. Swales, standards belong to highly conventionalised technical genres, i.e. genres with a stable, almost unchanging compositional model [11]. This emphasises their function not only as an informational document, but also as an operational document that defines the sequence of actions, test parameters and criteria for evaluating results.

In the Ukrainian tradition, standards are also considered part of official business and technical discourse, where accuracy, uniformity and unambiguity are paramount. The use of imperative language (“must”, “should”, “is not allowed”) ensures the regulatory force of the document, while the terminological richness and description of methods bring it closer to the style of scientific and technical texts.

Thus, a standard as a type of normative document is characterised by a dual nature: it functions at the intersection of formal business and scientific and technical styles, which determines its specific linguistic and structural features. In both linguistic cultures (Ukrainian and English), its communicative purpose determines the need for uniformity, logic, accuracy and normativity, which ensures the effectiveness of technical communication and the reproducibility of technological processes.

The development of international cooperation objectively necessitates the standardisation and unification of national state standards, which should result in the development of international standards that take into account the current level of scientific and technical progress and global practical experience, thereby helping to remove technical barriers to cooperation between different countries [5, p. 44].

Thus, in modern scientific tradition, a standard is positioned as a special, maximally unified type of scientific and technical text in which the content,

structure, and linguistic form are subordinated to a normative goal.

One of the most important factors stimulating the process of harmonisation of national and international standards was Russia's armed aggression against Ukraine, which began in 2014. It sharply highlighted the need to reorient technical regulations, standards and procedures towards European and global norms, as dependence on the outdated post-soviet standardisation system created risks for Ukraine's security, technological compatibility and economic integration.

Translating standardised technical texts is one of the most difficult types of professional translation, as such documents perform regulatory, normative and engineering-operational functions. Unlike scientific or instructional texts, standards have a rigid structure, an established terminology system and unambiguous requirements for the presentation of information. Changes in wording can affect the accuracy of procedures, technical safety or legal compliance of the document. Therefore, the translation of standards requires maximum accuracy, minimum variability and strict adherence to the stylistic norms of the source genre.

Considering the inherently complex and multi-layered nature of technical standardisation, the key research objective is to single out those core features that predetermine the specific requirements for translating standardised documents. From this perspective, the analysis should primarily focus on terminological accuracy, as terminology constitutes the structural and semantic backbone of a standard and directly determines the adequacy of interlingual transfer of its normative provisions.

According to the State Standard of Ukraine 1.1:2015, the process of adopting international standards and regulatory documents as national ones involves targeted textual transformations and an explicit assessment of the degree of conformity between the source international document and its national counterpart [2]. Furthermore, State Standard of Ukraine 1.7:2015 defines three distinct levels of equivalence applied in standardisation practice:

Identical (IDT) – involves the complete preservation of the technical content, structure and presentation of the original international standard. Only minor editorial changes and the inclusion of national annexes that do not affect the content are permitted.

Modified (MOD) – allows the structure of the original document to be preserved, but contains explained and justified technical deviations. These

modifications may involve variations in the overall scope of the text, the introduction of supplementary provisions, the formulation of alternative requirements, or the omission of specific elements. At the same time, all alterations are implemented in a manner that preserves the possibility of direct and transparent comparison with the source document.

Non-equivalent (NEQ) – characterised by significant editorial and technical changes that are not explained or justified. The document may have a different structure or be significantly shorter, making it impossible to conduct a correct comparative analysis with the international standard [4, p. 32].

These conformity levels are directly associated with the procedures for adopting international standards as national ones. The confirmation method does not entail translation or republication of the document; instead, the relevant technical committee examines the original text and decides whether amendments to existing national standards are required or whether they should be withdrawn. Under this approach, the international standard is adopted with IDT status and officially issued in its original language.

Reprinting methods include reprinting, translation and revising the text. They may involve editorial clarifications, technical adjustments, notes or national elements. The level of conformity varies:

revision may lead to MOD or NEQ status;

reprinting and translation usually provide IDT or MOD status [2, p. 3–8]

Each approach to the adoption of international standards presupposes a certain extent of translation, covering both operative sections of the document and its reference annexes; however, only the translation-based method entails the full reproduction of the international standard for the purpose of its official promulgation. The availability of an identical translated version significantly facilitates the activities of technical standardisation committees, as it enables a more efficient examination of documents and supports informed decision-making regarding amendments, harmonisation or the revision of existing national standards.

In this context, the translation strategies proposed in the study may be applied in further professional practice to produce identical or adapted translations of technical standards, in particular regulatory documents governing methods, testing procedures, sampling, and other testing processes.

It can be unequivocally stated that the translation of technical standards is a highly precise, regulated, and responsible process that requires not only professional linguistic training but also a deep understanding of

technical terminology, sector-specific concepts, and the regulatory logic of documents. Unlike literary or journalistic translation, which allows for a certain degree of interpretative flexibility, the translation of standards is characterised by minimal admissible linguistic variation and a strict orientation towards the source text. Even minor deviations in wording may have significant consequences, including risks to the safety of technological processes, the legal validity of the document, or the conformity of products with certification requirements. This position is supported by J. Byrne, who defines technical translation as “functionally critical” and emphasises that inaccuracies may endanger health, safety and production operations [8].

Within the framework of technical standards, the problem of linguistic variability acquires particular significance, as the coexistence of multiple lexical forms, alternative spellings or structural variants may result in ambiguity of instructions, procedural inconsistencies, technical malfunctions or failure to meet regulatory requirements. Similar to the general language system, technical English is characterised by a range of variants that are formally equivalent but differ in their usage, distribution or historical development. In accordance with the classification proposed by O. O. Taranenکو [7], variability in technical standards may be systematised into the following categories:

1) Phonetic (historically-based) spelling variations. Fixed spelling is predominant in standards, but historical or regional variants do occur, for example: *meter / metre* (ISO metric standards vs. BSI British standards); *fiber / fibre* (ASTM vs. IEC); *center / centre* (American vs. European technical documents); *liter / litre* (SI Units, ISO 80000 Usually only one variant is allowed, and the second is fixed as a “permitted alternative”).

2) Stress and rhythmic variations of terms (in pronunciation, but not in spelling). In technical standards, unambiguous oral reproduction during training and instruction is important, so different accent variations are also recorded, for example: *protocol* (PRO-tocol / pro-TO-col); *process* (PRO-cess in Britain, pro-CESS in the USA). In written standards, the variant is not indicated, but in IEC 60050 (Electropedia) pronunciation recommendations are provided.

3) Orthoepic variants of technical terms. This applies to the pronunciation of abbreviations or complex technical words, for example: *ISO* as [ˈaɪsoʊ] and [ˈiːso]; *NATO STANAG* as [ˈsteɪnæg] and [ˈstænæg]; *data* as [ˈdeɪtə] and [ˈdɑːtə]. Such variants do not affect the written form, but are important in the context of oral technical instruction.

4) Orthographic variants. International standards include, for example: *grey / gray; sulphur / sulfur* (in the 1990s, IUPAC standardised *sulfur*); *catalogue / catalog*. ISO/IEC standards officially establish American forms for technical terms, which unifies documents.

5) Morphological variants: a) Word-formation variants. Technical documents may contain doublet forms, for example: *calibrator / calibrator device; analyzer / analyser; standardization / standardisation*. ISO usually selects one form as the main one. b) Variants of grammatical category. Noun and verb forms often coexist in technical standards, for example: *test (noun) / to test (verb); measure / measurement; record / recording*. The choice depends on the syntactic structure of the instruction (*Record the values – Make a recording of the values*).

6) Variants of syntactic construction - technical verb terms can have different valency patterns, for example: *comply with a requirement / comply to a requirement* (the latter is rare, but occurs in outdated ASTM documents); *conform to / conform with; refer to / refer back to*. ISO standards clearly specify the recommended form of construction.

7) Derivational variants, for example: *water-resistant / water-resisting; load-bearing / load-supported; fail-safe / failure-safe*. API and ASTM documents often list several variants, but one is designated as the preferred term.

8) Component order variants (composites) – in technically complex terms, the component order may vary, for example: *safety valve / valve safety device; quality control / control of quality; system testing procedures / procedures for system testing*. Standards recommend avoiding variability and using only one construction for the entire terminology system.

9) Combined variants are cases when several types of variability are combined, for example: *real-time monitoring / real time monitoring / real-time-monitoring; high-pressure testing / high pressure testing; multi-component system / multicomponent system*. Combined variants are the most problematic because they involve spelling, morphology and syntax at the same time.

Variability is unacceptable in technical standards and can even become a critical issue, as it reduces the clarity of processes. For example, in API standards, the phrases fill the container to the full level and fill the container to full-level have different engineering implications; in ASTM regulatory documents, the difference between test specimen and testing sample means different methods of preparing the material.

Variability also complicates translation and document harmonization (IDT/MOD/NEQ), creates conditions for technical errors, disrupts the tracing of requirements, and hinders automated reading, search functions, and the unification of CAT translation memories. In the Ukrainian DSTU system, variability in translated standards complicates the identification of the degree of conformity (IDT or MOD). ISO/IEC Directives emphasize the principle: One term – one definition – one form.

Therefore, variability is not just a linguistic problem – it is a technical and legal risk. Therefore, the translator's task is to unify and normalise the forms with which they work by: selecting a standardised term approved by ISO, IEC or API; cross-checking with Electropedia, ISO Online Browsing Platform, API Glossary; harmonising with current Ukrainian DSTU and industry terminology systems; creating a glossary and terminology memory; coordinating the selected options with a technical committee or industry expert. The translator acts not only as a linguistic intermediary, but also as a regulator who ensures the integrity of the regulatory document.

However, standards not only lay down the rules, methods, parameters and procedures, but also form the ethical, legal and safety dimensions of activities. International standardisation organisations such as ISO and IEC emphasise that standards serve as a global “trust mechanism” by ensuring consistency of approaches, transparency of technical requirements, product safety and mutual compatibility of systems (ISO/IEC Directives, 2022). In this context, the translator is not just an intermediary between languages, but part of the regulatory infrastructure that ensures the proper functioning of technical regulation systems.

Accurate and consistent translation of standards facilitates the harmonisation of national regulatory documents with international norms, which constitutes a fundamental prerequisite for Ukraine's integration into global technical, economic and security frameworks. Harmonised and identical translations of standards facilitate mutual recognition of products, contribute to the elimination of technical barriers to trade and create enabling conditions for a country's participation in international supply chains (CEN–CENELEC Guide 17, 2021). In the context of current challenges—particularly those associated with European integration and the continuous adaptation of standards—the translation of regulatory documentation acquires strategic importance for the modernisation of national infrastructure and the strengthening of the competitiveness of Ukrainian industry.

Moreover, as noted by O'Hagan, the translation of standards and technical documentation constitutes a fundamental component of an extensive system of technological communication that creates the necessary preconditions for innovation and ensures the sustainable development of technology [10]. Viewed from this angle, the translation of technical standards should not be regarded merely as a linguistic procedure; rather, it acquires pronounced political and economic significance, since it directly affects production quality, equipment safety, international cooperation and the processes of digital transformation.

Consequently, high-quality translation of standards represents a critical factor in the development of Ukraine's industrial sector, innovation potential and infrastructure, as well as in its integration into the European and global technical space. This conclusion is supported by the recommendations of the European Committee for Standardisation and by numerous scholars who emphasise that accuracy, structural consistency and terminological unification are fundamental requirements for the translation of normative documents.

Conclusions. The study demonstrates that standardised technical texts constitute a specific type of normative document characterised by a dual nature, functioning at the intersection of official-business

and scientific-technical styles. Their communicative purpose determines a high degree of structural rigidity, terminological consistency and minimal linguistic variability.

It has been established that variability in technical standards is not merely a linguistic phenomenon but a technical and legal risk that may affect the safety, reproducibility and regulatory validity of technological processes. The classification of variability types confirms that even formally equivalent variants may lead to ambiguity and non-compliance in technical documentation.

The translation of standards requires strict adherence to the principle "one term – one definition – one form", systematic verification of terminology against international databases and harmonisation with national standardisation systems. Within this framework, the translator performs not merely the function of a linguistic intermediary but also serves as an integral component of the regulatory infrastructure that ensures the proper functioning of standardisation processes.

The findings of the study may be applied in professional translation practice, in the domain of technical standardisation, and in further research aimed at harmonising national and international regulatory documents.

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Штогрин М. В. ОСОБЛИВОСТІ ПЕРЕКЛАДУ СТАНДАРТИЗОВАНИХ ТЕКСТІВ

У статті проаналізовано особливості перекладу стандартизованих технічних текстів у контексті їх нормативної та регулятивної функцій у професійній комунікації. Стандартизовані документи відіграють ключову роль у забезпеченні безпеки, уніфікації та відтворюваності технологічних процесів у різних сферах технічної діяльності. На відміну від інших типів фахових текстів, стандарти характеризуються жорсткою композиційною структурою, суворо регламентованою термінологічною системою та мінімально допустимою мовною варіативністю. Будь-які неточності або неузгодженості у їх перекладі можуть призводити до технічних помилок, правової невідповідності та ризиків для промислової безпеки.

У статті стандарти розглядаються як особливий тип нормативного документа, що функціонує на перетині офіційно-ділового та науково-технічного дискурсів. Особливу увагу приділено мовним характеристикам стандартизованих текстів, які зумовлюють специфіку їх перекладу, зокрема термінологічній точності, структурній еквівалентності та стильовій нормативності. Проаналізовано міждисциплінарний характер поняття стандарту в межах термінознавства, документознавства та перекладознавства з урахуванням українських і зарубіжних наукових підходів.

Центральним у дослідженні є питання мовної варіативності у технічних стандартах та її впливу на перекладацьку еквівалентність. Систематизовано основні типи варіативності в англійськомовних стандартизованих текстах, зокрема орфографічну, морфологічну, синтаксичну та дериваційну, і доведено, що варіативність у нормативних документах є не лише лінгвістичним явищем, а й техніко-правовим ризиком. Аналіз здійснено в контексті прийняття міжнародних стандартів як національних з урахуванням рівнів відповідності IDT, MOD та NEQ, визначених українськими нормативними документами зі стандартизації.

Обґрунтовано, що переклад стандартів вимагає суворого дотримання принципу «один термін – одне визначення – одна форма», систематичної перевірки термінології за міжнародними базами даних і гармонізації з національними термінологічними системами. Доведено, що перекладач стандартизованих текстів виступає не лише мовним посередником, а й складовою регуляторної інфраструктури, яка забезпечує точність, безпеку та ефективність технічної комунікації. Результати дослідження можуть бути використані у професійній перекладацькій практиці, сфері технічної стандартизації та подальших наукових розвідках, присвячених гармонізації нормативних документів.

Ключові слова: стандартизовані тексти, технічний переклад, термінологічна варіативність, нормативні документи, перекладацька еквівалентність.

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