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**SELECTION OF LEXICAL MATERIAL IN THE DEVELOPMENT OF THE TERMINOLOGY OF OIL AND GAS DICTIONARY**

The modern level of development of science and technology is characterized by an enormous amount of information. Even a popular presentation of the latest scientific and technological achievements requires a modern man to have a fairly large amount of terminological vocabulary. Therefore, the study of individual subsections in terminology is being given more and more attention at present.

The oil industry is a rapidly developing the branch of the economy. Providing transportation with fuel is an urgent problem for many countries. Drilling is one of the most important branches of the oil and gas production industry, on the level of development of which oil extraction depends to a large extent, especially in hard-to-reach areas of the globe. In the latest achievements of Kazakhstan's oil and gas industry and the formation of appropriate infrastructure in the region, the successful development of the oil and gas resources of the Caspian Basin of Western Kazakhstan largely depends on the operational use of domestic and foreign achievements by scientists, engineers, economists, oil workers in such areas as well drilling, oil production, the construction of oil pipelines, etc.

Terminology as a special branch in the structure of terminology has applied not been fully formed to date. The subject of applied terminology is the comparison of individual terms and their collections related to a certain area of knowledge or activity. In addition, the dependence of the term on terminology and the thermo-system makes it possible to reveal regularities when comparing the content and formal structure of terms belonging to one national language, but belonging to different sets.

The basic principles of selection of lexical material and terminology of oil and gas industry is described in this article. In view of the proposed principles of selection was made a brief glossary of the minimum dictionary «Petroleum Engineering». The dictionary includes the terminological vocabulary and some lexical items related to general academic vocabulary.

**Key words:** Lexography, term, terminology, oil and gas industry and applied terminology

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**Мұнай және газ терминологиялық сөздігін жасау кезінде лексикалық материалды іріктеу**

Қазіргі заманғы ғылым мен техниканың даму деңгейінің ауқымы кең. Тіпті танымал баяндау, ең жаңа ғылыми-техникалық жетістіктерді қазіргі заманғы адамның білім жеткілікті үлкен санын терминологиялық лексикасын талап етеді. Сондықтан зерделеу жекелеген бөлімшелерінің қазіргі уақытта терминологияға мәселесіне көбірек көңіл бөлінеді.

Мұнай өнеркәсібі – бұл қарқынды дамып келе жатқан экономиканың саласы. Көлік жанғышын қамтамасыз ету көптеген елдерде маңызды болып табылады. Бұрғылау – мұнай-газ өндіру өнеркәсібін бір маңызды саласы, даму деңгейін, оның айқындаушы дәрежесіне байланысты мұнай өндіру, әсіресе, жол қатынасы қиын аудандарда. Соңғы жетістіктердің аясында Қазақстанның мұнай-газ өнеркәсібінің қалыптасуы және тиісті инфрақұрылымды, өңірдегі табысты игеру мұнай және газ байлығын каспий маңызы Батыс Қазақстанның көбіне жедел пайдалану ғалымдар, инженерлер, экономистер, мұнайшылармен отандық және шетелдік жетістіктерді салаларда ұңғымаларды бұрғылау, мұнай өндеу, мұнай құбырларын салу және т. б.

Қолданбалы терминоведение ерекше саласы құрылымында терминоведения осы уақытқа дейін толық қалыптаспады. Қолданбалы терминоведения болып табылатын салыстыру жекелеген терминдер мен олардың шоғырларын, білімнің белгілі бір саласына жататын қызмет. Сонымен қатар, тәуелділік терминнің терминология, термосистемы анықтауға заңдылықтары салыстыруға кезінде мазмұндық және формальды құрылымын терминдер жататын бір ұлттық тілге емес, кіретін әр түрлі тілдер жиынтығы.

Осы мақалада мұнай-газ саласына байланысты лексикалық материалдардың терминологиялық сөздіктің негізгі қағидалар туралы айтылған. Ұсынылған қағидалардан «Мұнай-газ» лексика сөздік-минимумы есепке алынып, құрастырылды. Осы сөздікке жалпы ғылыми мұнай газ терминдерге қатысты терминологиялық лексика, сонымен қатар бірмәнді лексикалық бірліктер туралы қарастырылды.

**Түйін сөздер:** лексография, термин, терминология, мұнай-газ саласы және қолданбалы терминология.

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#### **Отбор лексического материала при составлении терминологического словаря по нефти и газу**

Современный уровень развития науки и техники характеризуется колоссальным обилием информации. Даже популярное изложение новейших научно-технических достижений требует от современного человека знаний достаточно большого количества терминологической лексики. Поэтому изучению отдельных подразделов в терминологии уделяется все больше и больше внимания в настоящее время.

Нефтяная промышленность – это бурно развивающаяся отрасль экономики. Обеспечение транспорта горючим является насущной проблемой многих стран. Бурение – одна из наиболее важных отраслей нефтегазодобывающей промышленности, от уровня развития которой в определяющей степени зависит добыча нефти, особенно в труднодоступных районах земного шара. В свете последних достижений нефтегазовой промышленности Казахстана и формирования соответствующей инфраструктуры в регионе, успешное освоение нефтяных и газовых богатств Прикаспийской впадины Западного Казахстана во многом зависит от оперативного использования учеными, инженерами, экономистами, нефтяниками отечественных и зарубежных достижений в таких областях, как бурение скважин, нефтедобыча, строительство нефтепроводов и т.п.

Прикладное терминоведение как особая отрасль в структуре терминоведения до настоящего времени полностью не сформировалось. Предметом прикладного терминоведения является сопоставление отдельных терминов и их совокупностей, относящихся к определенной области знаний или деятельности. Кроме того, зависимость термина от терминологии, термосистемы позволяет выявлять закономерности при сопоставлении содержательной и формальной структуры терминов, относящихся к одному национальному языку, но входящие в разные совокупности.

В статье говорится об основных принципах отбора лексического материала терминологического словаря по нефтегазовой отрасли. С учётом предложенных принципов отбора был составлен краткий словарь-минимум по «Нефти и газу». В словарь вошла терминологическая лексика по нефти и газу, а также некоторые лексические единицы, относящиеся к общенаучной лексике.

**Ключевые слова:** лексография, термин, терминосистема, нефтегазовая отрасль и прикладное терминоведение.

## Introduction

In connection with global changes in the economy of sovereign Kazakhstan, in particular with the successful development of the oil and gas sector in which international companies take an enormous part, in this area of communication, many new terms have appeared in the Kazakh language. This necessitated their ordering, classification, and therefore, careful research from a linguistic point of view.

The development of Kazakh branch terminology is characterized by the stage of standardization and normalization. To achieve optimal results, materials and dictionaries reflecting the current trends in languages are needed. At the same time, it should be noted that the special and technical terminology system in the Kazakh language is at the stage of formation and requires a scientifically based approach to the development of industry terminology. The problem of the formation of the Kazakh terminology system in the oil and gas sphere is of particular relevance in connection with the role and place of Kazakhstan in the world oil industry. As you know, oil occupies a leading place in the world fuel and energy economy, being the most important source of energy. The share of this raw material in the total consumption of energy resources is continuously growing. The oil and gas industry is connected with most of the interstate relations carried out with the involvement of translators. In addition, hundreds of thousands of people work in this sphere, providing legal, financial, marketing and many other services to the main production. Over the past years, significant and fundamentally important changes have taken place in the field of petro chemistry, oil production and refining, which has contributed to the expansion of the lexico – terminological material. Understanding the peculiarities of special vocabulary raises the quality of the entire service block, shortens the time to find the optimal solution in a dynamic market. The modern level of development of science and technology is characterized by an enormous amount of information. Even a popular presentation of the latest scientific and technological achievements requires a modern man to have a fairly large amount of terminological vocabulary. Therefore, more and more attention is paid to the study of individual subsections in terminology. (Лейчик В.М.,1998:258).

Modern lexicography has significantly expanded and strengthened with computer technologies for the creation and operation of dictionaries. Therefore, a new direction in linguistics – corpus lexicography – has been widely spread, which develops general

principles for constructing linguistic corpus of data using modern computer technologies.

Installation of the dictionary to ensure the success of communication, increasing the requirement for accuracy and completeness of the information contained in the dictionary articles on the possibility of using in various fields. Ideally, the dictionary should be an intermediary between theoretical linguistics and society. Successful realization of communicative goals in mastering the language presupposes the existence of such dictionaries that would allow the learner to determine not only the level of the desired communicative competence, but also the strategy of mastering the language, the volume of vocabulary.

For the effectiveness of language training in the preparation of polyglot specialists in universities, it is necessary in the body of any lexicographic source that the vocabulary should be interesting, cognitive, grammatically filled, connected with the culture and customs of peoples, as the surrounding world is displayed in the mirror of terminological dictionaries. (Алексеева Л.М..2000:150).

Modern society requires the improvement of vocabulary. At the present time, the lexical and statistical processing of the source and target lexical material is carried out using computer technology, namely by introducing computers and dictionary construction, improving vocabulary techniques, conducting compulsory sociolinguistic and psycholinguistic studies to correct data from dictionary files.

Applied terminology as a special branch in the structure of terminology has not been fully formed to date. The subject of applied terminology is the comparison of individual terms and their collections related to a certain area of knowledge or activity. In addition, the dependence of the term on terminology (terminology) makes it possible to reveal regularities when comparing the content and formal structure of terms related to one national language, but belonging to different sets. By definition, V.M. Leichik, in the applied terminology several subsections are identified. We list them: (Лорте Д.С..1994:47).

1) terms that are part of the same field of knowledge or activity or related to two or more national languages allow one to analyze in pairs the terms of the oil and gas industry of the Kazakh language in the same area with identical terms of the Azerbaijani or Turkmen languages.

2) terms and terminosystems of the same field of knowledge or activity with the difference of theories (concepts) underlying their analysis. Here there can be two cases of comparing two terminology systems

of the same region based on different theories in one national language, although theories related to understanding phenomena in this field are different. 3) terms and terminology of two (or more) areas of knowledge or activity. Identification of common terms of these areas, examples of inter-system borrowing of terms, as well as cases where the same terms receive different definitions of relevant concepts in related fields, which leads to the need to unify terms and concepts.

4) in the structure of applied terminology is allocated a large section of the problematic of interlanguage borrowing of terms. It is clear that this problem is beyond the scope of applied terminology, but some of the questions of this theory can be solved by analyzing terms in two or more national languages, for example: when is it appropriate to borrow a term? from which language? in what meaning? etc.

5) the structure of applied terminology includes the problems of the linguistic theory of translation, as far as this relates to the translation of terms in the texts of scientific and technical literature and documentation. This includes the classification of methods for translating terms and the dependence of these methods on the two national languages compared with terminology (Вролодина М.Н.1953:90-94).

The reason for carrying out lexicographic studies of oil and gas terms was the need to solve the problem in the training of specialists in the oil and gas industry. It is also important practical need of students, graduate students, applicants in the creation of an industry terminological dictionary that will improve the quality of relations between countries.

For the selection of lexical material in the terminological dictionary, a classification was compiled reflecting the main directions of the development of technology and technology of drilling wells for oil and gas, consisting of 22 names. On the basis of this classification, monographs and periodicals were selected by a selective method. The proposed dictionary contains terminology on the following topics: drilling, washing, fastening and cementing of oil and gas wells, development of oil and gas fields, oil production, petro chemistry, oil refining industry and design. Examples are given of drilling and operating equipment, exploitation of oil and gas wells, methods of increasing production, technological processes of injecting wells, transport and storage of oil and gas and other objects.

Mastering knowledge in the field of terminology presupposes knowledge and ability to use terms in professional activities. Terminological knowledge

is based on the assimilation of a certain volume and content of scientific concepts, as well as on the concept of the terminological system of the subject domain being studied, reflecting intersystem concepts and relationships. In other words, part of the scientific knowledge of the future oil specialist can be imagined as knowledge about the meanings of terms, their tendency to uniqueness and system. Objective opportunities for a strong mastery of the terminology of the professional sphere of activity of the future specialist in the oil industry in the conditions of higher profile education impose strict rules on the quantity and quality of lexical material. As a rule, the mastering of the entire terminological volume of a specialist begins with the study of the basic terms on the first course. Such a set of basic vocabulary will make up its terminological minimum. It represents the main stock of terminological vocabulary, which should provide the students with the opportunity to express their thoughts and understand the thoughts of others in oral and written speech, in particular, during the development of the content of the discipline «Oil and Gas Business».

For the selection of lexical material in the development of the terminology dictionary for oil and gas, the following principles were defined. These include: the principle of compliance with the goals and objectives of training; the principle of frequency; the principle of the word-forming value of the term; the principle of semantics; principle of brevity (Болдырев Н.Н..1999:62-69).

*The principle of compliance* with the goals and objectives of training. It finds its expression in the fact that in the process of studying the academic discipline «Oil and Gas Business», a certain terminological unit is selected and included in the minimum vocabulary. Terminological preparation begins with mastering terms for identifying the names of the composition of oil and gas, wells, methods of processing oil and petroleum products, ways of transporting oil, oil products and gas methods of storing and distributing oil products and gas.

The principle of frequency helps to identify the frequency of a word. By it we mean the use of the observed term. These include: oil, gas, well, drilling, kerosene, gasoline, fuel, oil and gas bearing field, oil products, rotor, turbo, drilling rig, cracking, deposit, slaughter, barrel, oil pipeline, bitumen, pump, etc.

1) The principle of prevalence gives an idea of the number of sources in which the term occurs at least once. This principle has limited measurement capabilities, since it indicates the regular occurrence of the word, and not its specific gravity in the set

of sources used. Therefore, for the selection of lexical material, its combined use is used in conjunction with the principle of frequency. The boundaries between actual terms of speech and the usual terms of the language are unsteady and mobile. Apparently, there are many transitional cases, steps in the movement from speech to language of the actual terminated phrase. The task is to find, find out some methodical procedures that would, first, isolate the wordy terms in speech, and second, distinguish the terms of speech from the terms that are included in the system of language. One of such possible procedures is the reproducibility, the frequency of the terminated phrase in the text. But there is a danger that such a procedure can not be successfully applied, since among the verbose terms many of those that are used rarely and catch in the text their repeatability is difficult. In this case, you can apply the experiment procedure in terms of syntax. Suppose that we are interested in whether the following combinations of words can be considered as different terms. (Федоров А.В.1953:157).

These phrases from the position of direct complement preserve the conceptual content and do not change the form; from the position of the subject, the phrase is an integral language unit with a stable conceptual meaning.

The foregoing allows us to conclude that the science of language is interested in the study of terms, terminology of certain industries

The principle of word formation is that differences in the structure of terms, determined by the word-formation system of each language, are analyzed. In particular, the possibility of a morphemic representation of terminological elements, which appear in the English, Kazakh and Russian languages in the form of words: *seat thickness* – қат қалындағы (мощность пласта), *nucleate boiling* – көпіршіктік қайнау (кипение пузырьковое), *oil field development* – кең орнын игеру (освоение месторождения), *rock hardness* – жыныс қаттылығы (твердость породы), *auxiliary equipment* – көмекші жабдық (оборудование вспомогательное).

At the lexical level, comparative analysis makes it possible to identify similarities and differences in the designation of the same object. So, in one of the languages there can be a term-word, in another – the term phrase: *directional drilling* – еңістене бағдарланған (направленное бурение), *directional drilling* – бұрғылау (направленное бурение), *vacuum evaporation* – вакуумдау (вакуумирование), *mineral resources* – жер қойнауы (недра), *geometry of formation* – жер қойнауының геоме-

триясы (геометрия залежи), *ground connection* – жерге қосу (заземление), *lifting capacity* – жүккөтергіштік (грузоподъемность), *heat exchange* – жылуалмасу (теплообмен), *outcrop* – жыныстың ашылымы (обнажение породы), *surfactant* – беттік активті зат (поверхностно активные вещества), *explosive* – жарылғыш зат (взрывчатое вещество), *contaminant* – зиянды зат (вредное вещество), *branch connection* – иелік(отвод), *waste – heat boiler* – кәделейіш қазандық (котел утилизатор), *nozzle* – келте құбыр (патрубок).

From the semantic level, taking into account both linguistic, and, in fact, terminological signs of lexical units, comparative analysis passes to the terminological level, which reveals the presence or absence of a term in one or another language. For example, the Russian term «process» corresponds to the German term «der Vorgang», in the Kazakh language there is no equivalent to this term.

*The thematic principle* ensures the selection of words-terms on separate sections or topics. In the terminological minimum of the discipline «Oil and gas business» the following thematic sections were defined: drilling, flushing, fixing and cementing of oil and gas wells, development of oil and gas fields, oil production, petro chemistry, oil refining industry and design. Examples are given of drilling and operating equipment, exploitation of oil and gas wells, methods of increasing production, technological processes of injecting wells, transport and storage of oil and gas and other objects. (Латышев Л.К.1981:247).

It consists in the fact that the selected terms should express the most important concepts on the topic with which the student meets in the process of studying the relevant subject area. The principle of brevity of the industry under consideration is a large number of terminological combinations consisting of two, three and four parts. The existence of a large number of terminological combinations in scientific and technical disciplines does not contradict the tendency of the language to create combinations for the expression of new simple or complex concepts. The lexical resources of any language are limited, while the technology is developing at a rapid pace, contributing to the creation of new equipment, and hence new terms. Hence, rapid growth and augmentation of terminological compatibilities is a natural and irreversible process. (Федоров А.В.1953:247).

The rate of brevity also requires that the designation fixes the minimum number of attributes necessary and sufficient for the identification and differ-

entiation of the designated object. And it turns out that compound terms do not in the least contradict this requirement. By the way, as noted above, in the oil and gas industry of the English and Kazakh languages, the two-word terminological combinations represent the largest number.

Principle of system. The norm of systemic character requires the designation of the correct designation of the named object in its place in the material system. In this respect, the terminological combination has the same properties and characteristics as the term whose system characteristics are regulated by logical-conceptual relations.

Taking into account the proposed selection principles, a brief minimum dictionary on «oil and gas» was compiled. The vocabulary included terminological vocabulary, as well as some single-valued lexical units related to general scientific vocabulary. They are used mainly in scientific and technical texts. The dictionary is 2000 lexical units. The sample of lexical units was made from 33 sources (Виноградов В.В.1947:17).

In conclusion, it can be noted that the indicated principles of selection of the terminological vocabulary of the discipline «Oil and gas business» and the proposed version of its organization in the form of an educational terminology dictionary – a minimum

allow intensifying at the first stages the process of professional training of future oil specialists and translators of special literature.

### Conclusion

In conclusion, it should be emphasized that national and international factors interact in the field of technical composite terms. Using as a building material, mainly the national language, its internal potential, the range of word-building morphemes and word-combinations, the creators of terms act according to the language laws. Words and phrases that arise during the development of terminological systems, when moving from the sphere of a common language to a specific scientific or branch terminological domain, enter into specific relations regulated by logical-conceptual relations. Along with the appearance of terms in a certain language, in addition to linguistic, there are external, intralinguistic, factors, which include the appearance of internationalisms. The most important component in the emergence and formation of a certain terminology system in the field of terminology, along with a spontaneous beginning, the conscious efforts to unify terminology in the national, international and international scales are decisive

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