

Overview of the Mechanisms for Providing Personal Protective Equipment in World Practice

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Abstract. The paper considers a comparative analysis of the legal acts of providing workers with personal protective equipment of the European Union, the USA, Canada, the Russian Federation and other countries to justify the transition from the «list» approach to the issuance of personal protective equipment to the one used in international practice. Currently, the Republic of Kazakhstan uses a strictly regulated approach to the issuance of personal protective equipment based on established standards. The conditions of mass infection during the pandemic showed the ineffectiveness of the applied regulatory approach, without taking into account the nature of the risk. Therefore, in this direction there is a need for scientific substantiation of new approaches, taking into account the professional risk of the employee. During the review of international and domestic legal norms, key points of differences were identified, namely the use of a risk-based approach as the most modern and in line with modern trends and realities in ensuring the safe work of workers. Establishing a clear link with the results of occupational risk assessment will ensure the risk-oriented mechanisms for issuing personal protective equipment and training in safe work methods, which are modern measures of safe work in accordance with international legal practice. The article presents the results of scientific research obtained during the implementation of the scientific and technical program on the topic: «Risk-oriented organizational and economic mechanisms for ensuring safe work in the conditions of modern Kazakhstan» (IRN OR11865833-OT-21) within the framework of program-targeted funding of research of the Republican Research Institute for Labor Protection of the Ministry of Labor and Social Protection of the Republic of Kazakhstan.

Keywords: occupational risk, occupational diseases, injuries, harmfulness, danger, classification, procedure, provision, analysis, labor protection, personal protective equipment (PPE), mechanisms for providing PPE.

Introduction

The current regulatory legal acts of Kazakhstan on the provision of PPE do not meet the standards adopted in international practice. In this regard, the use of the current PPE provision procedure needs to be reviewed. For this, it is important to correctly classify (1) dangerous and harmful factors of the production environment; (2) the PPE itself, depending on these factors, and (3) analyze the mechanisms for the provision of PPE in foreign countries for comparison with Kazakhstan in order to develop scientifically based theoretical and methodological risk-oriented approaches in providing PPE at the enterprise.

The following countries were selected for the comparative analysis of PPE regulations: Canada, the United States, Great Britain, Poland, Japan, Rus-

sia and Belarus. Russia and Belarus belong to the post-Soviet space as well as Kazakhstan, thus they have identical principles for ensuring safety and labor protection.

Canada and the United States lead the way in providing personal protective equipment based on occupational hazards. Japan ranks first in the world in eliminating workplace injuries.

Methodology

The main aim of this study was to use the following methods [1, 2]:

- systematic;
- functional;
- comparative;
- target;

- logical.

The central place among the methods of our research is given to the systematic method. By the systematic method of the act of interpreting the norms of law, a set of techniques is taken based on the comparison of two or more legal norms; the use of which, allows you to reveal the content of the norm and explain it. The next method is functional. It provides for the study of functions that are used in the creation of various types of interpretative acts. The method finds out exactly what functions are performed by the corresponding acts of interpretation. So, it is known that the acts of interpretation have some general features, but are far from the same in their specific content, the nature of the action, and the functional purpose.

The comparative method is used to figure out commonalities and differences between the types of interpretive acts within the framework of the official or unofficial interpretation of the rules of law by comparing their differences on some basis or property. When using the target method, the objectives and tasks of issuing an act of interpretation of the rules of law are clarified. Quite often, the actual act of interpretation, as a rule, the preamble, contains an indication of the purpose. Sometimes the purpose might be logically derived from the content or title of the act of interpretation, its individual norms, articles and sections. With the help of the logical method, it is revealed, first of all, the internal (logical) structure of the act of interpretation, the interconnection of its three elements: hypotheses, dispositions and sanctions; possible logical contradictions are eliminated when one statement excludes the other.

Discussion

In Canada, the first priority is to eliminate hazards through effective preventive measures based on a consistent risk assessment. If the hazard cannot be eliminated or controlled, an employer must provide a worker with appropriate personal protective equipment [3].

To determine the necessary personal protective equipment, it is required:

1. Assessment of working conditions in the workplace.
2. Consultation with the joint health and safety committee or representative, as appropriate.
3. Consultation with the relevant worker who will use these funds.

To ensure reliability, correctness and sufficiency of PPE, a responsible person is appointed at the enterprise.

In Canada, there are no issuance standards and a strictly regulated approach to the issuance of PPE, and the employer can refer to both Canadian standards and generally accepted ISO (EN) standards.

Employers in the United States have a responsibility to provide a safe and healthy workplace for their employees, which is governed by the US Occupational Safety and Health Act of 1970.

The US federal agency OSHA (Occupational Safe-

ty and Health Administration) has established occupational safety and health management standards that require employers to provide personal protective equipment for workers against injuries, illnesses and deaths related to their activities.

The type and nature of workplace hazards are a major indicator of the correct choice of PPE. Employees are instructed on the risks that can be avoided or limited with PPE, the reasons for using PPE, how to use it safely and effectively, and the steps to keep it in good condition, such as cleaning, replacing, and storing. Employees themselves must use PPE as instructed, report any loss or defect, and properly store it. Self-employed workers are also required to make full and proper use of PPE.

The Washington State Department of Labor and Industry requires all employers to assess their workplaces for hazards that may require the use of personal protective equipment.

OSHA pays special attention to personal respiratory protection equipment (PPE); based on the results of scientific research by the National Institute for Occupational Safety and Health (NIOSH), it has developed a program for the selection and organization of the use of personal respiratory protection equipment. NIOSH determines the selection of adequate RPE and the organization of their use. [4].

In the United States, the range of PPE and timing of wearing it are not controlled, since the latter is set by the manufacturer. The OSHA Occupational Safety and Health Administration requires many categories of personal protective equipment to meet or be equivalent to standards developed by the American National Standards Institute (ANSI). Therefore, the quality of PPE in the United States is established by a special body ANSI – an association of American industrial and business groups that develops trade and communication standards that manufactured (imported) PPE must comply with.

In articles [5-6] it is noted that in America there are organizations that oversee compliance with safety regulations in departments, and also prescribe the mandatory provision by the employer of personal protective equipment for their employees.

Under Rules [7], an employer must pay for the required PPE, except for limited cases. Protective toe shoes and prescription safety goggles were excluded from the employer's pay requirements. The reason was mostly that these items were considered highly personal in nature and they were often worn off site.

In the UK, eliminating a hazard is the most effective way to manage risk. According to the PPE provision policy, after conducting a risk assessment using various levels of control, an employer is obliged to provide free PPE to its employees [8]. The service life of PPE is determined by the manufacturer's instructions.

Occupational health and safety inspectors include PPE assessments in their routine inspections. Enforcement actions can range from verbal or written recommendations to enforcement notices and, in the

most serious cases, prosecution of those responsible.

The system of enforcement and sanctions has been introduced into UK law with the 2018 Regulations (SI 2018 No. 390). The EU Withdrawal Act 2018 preserves these rules and allows them to be amended so that they continue to function effectively now that the UK has left the EU.

In accordance with section 9 of the Occupational Health and Safety Act 1974, a worker is not charged for the provision of PPE, which is used only at work.

In Poland, in accordance with the Labor Code (art. 237), an employer is obliged to provide the employee with personal protective equipment and provide him with information on how to use this equipment. To do this, an employer must analyze and assess the risks in the workplace and select high-quality certified PPE.

When determining the personal protective equipment required for use in specific jobs, the employer must take into account the instructions of the Decree of the Minister of Labor and Social Policy «On General Rules for Occupational Health and Safety» dated October 23, 1997, contained in tables 1-3 of the annex to these Rules [9].

The rules governing the issuance of PPE, its control and maintenance must be set out in an order or other document of the employer in accordance with article 104, paragraph 1 of the Polish Labor Code. Conformity assessment processes for personal protective equipment are carried out only in accordance with European Union Regulation 2016/425 and must comply with the conformity assessment requirements specified in the Law of August 30, 2002 «On the Conformity Assessment System» and in the by-laws issued on the basis of this law.

When conducting a risk assessment in Japan, a contractor must identify and address all potential risks and hazards, first attempting to eliminate or reduce such risks and hazards by making possible changes to working conditions.

Under the Occupational Safety and Health Law, employers in Japan are required to develop their own accident prevention programs and determine what protective equipment they use to prevent accidents. It is the responsibility of employers to decide on labor safety issues.

There are three forms of certification in Japan: mandatory certification confirming compliance with legal requirements; voluntary certification for compliance with national standards JIS [10], which is carried out by bodies authorized by the government; voluntary certification, which is carried out by private certification bodies. The employer must provide all necessary and required PPE to all personnel free of charge. The regulation on the issuance of personal protective equipment is determined on the basis of a risk assessment in accordance with Regulation (EU) 2016/4252.

In the Russian Federation, standard norms for extraterritoriality by profession (195) are currently in force (Order of the Ministry of Labor of Russia, December

9, 2014 No. 997). The standard norms for the free issuance of special clothing (order No. 290n dated June 1, 2009) indicate the norms, rules for issuing, storage and use. Approval of standard industry standards for issuance according to the decrees of the Ministry of Health and Social Development and the Orders of the Ministry of Labor of the Russian Federation. From September 1, 2023, the Uniform Standards for the Issuance of PPE are introduced, in accordance with the profession, position and identified hazard. It is planned to conduct a special assessment of working conditions (SUT) and an occupational risk assessment (OPR).

In the absence of professions and positions in the relevant model norms, the employer issues PPE to employees, provided for by model norms for workers in cross-cutting professions and positions. (Clause 14 as amended by the Order of the Ministry of Labor of Russia dated January 12, 2015 N 2n).

When issuing PPE, the results of a special assessment of working conditions (SOUT) and the results of a risk assessment (RRA), the opinion of a trade union organization, are taken into account.

Any PPE must have a certificate or declaration of conformity:

1) TR TS 019/2011 «On the safety of personal protective equipment»;

2) Gosstandart of Russia dated June 19, 2000 N34 «Rules for the certification of personal protective equipment».

Workers with harmful or dangerous working conditions are issued PPE free of charge, at the expense of the employer (Article 221 of the Labor Code of the Russian Federation). The employer issues, stores, repairs, washes and dries them.

In Belarus, the procedure for providing workers with personal protective equipment is regulated by the Instruction on providing workers with personal protective equipment, approved by the Decree of the Ministry of Labor and Social Protection of the Republic of Belarus dated December 30, 2008 No. 209 (hereinafter referred to as the Instruction), as amended on June 27, 2019 No. 30. New edition of the instructions came into force on August 25, 2019.

Guided by Paragraph 11 of the Instruction, the employer has the right to issue to employees the same type of PPE, according to standard norms, PPE with equivalent or higher (additional) protective properties and hygienic characteristics. At the same time, in all cases of replacing PPE, the specifics of production, the nature and working conditions of workers should be taken into account. An increase in the level of occupational risk of workers as a result of replacing PPE is not allowed.

At the same time, the employer, in accordance with paragraph 12 of the Instruction, has the right, based on the characteristics of production (work performed), with the permission of the territorial bodies and institutions exercising state sanitary supervision, and the territorial bodies of the Department of State Labor Inspection of the Ministry of Labor and Social

Protection of the Republic of Belarus replace one type of PPE, provided for by the standard norms, with another with equivalent or higher (additional) protective properties and hygienic characteristics.

The periods established in the standard norms for wearing PPE are determined by taking into account the fact that during this period the protective properties and hygienic characteristics of PPE, if used correctly, will meet the requirements of technical standards.

According to paragraph 33 of the Instructions, the period for wearing PPE can be extended by the decision of the employer in agreement with the primary trade union organizations or authorized persons, provided that the employee is employed on a part-time basis (part-time or part-time work week). In this case, the wear period is extended in proportion to the difference between the working time of normal duration and the actual time worked. There are no other cases of extending the period for wearing PPE by law.

At the same time, if the PPE quality control commission of the organization establishes that the PPE, after the expiration of the wear period determined by the standard norms, complies with the norms of technical standards for protective properties, hygienic characteristics, quality necessary to protect the employee from exposure to harmful and (or) dangerous production factors, pollution and unfavorable temperature, weather conditions, then in each specific case, the period of wearing the specified PPE can be extended by the decision of the commission for the period of preservation of the protective properties within the period of wear established by the manufacturer of the PPE.

The employer may provide, under a collective agreement, an employment contract, for the issuance of personal protective equipment to employees in excess of the established norms.

The period for wearing PPE is set by the employer and the trade union. Each case is considered separately, as well as the timing. Also, the employer can issue two sets of PPE, having coordinated this decision with the trade union. So, two sets suggest a double wear period, as well as improved operation and organization of PPE care.

The employer is obliged to ensure the issuance of PPE to employees free of charge in the amount not

less than the standard industry norms for the free issuance of personal protective equipment approved by the Ministry of Labor and Social Protection of the Republic of Belarus.

In the Republic of Kazakhstan, the list approach is used for the provision of PPE and strict regulation of the types of PPE depending on the profession or position of the employee. According to the Labor Code of the Republic of Kazakhstan (Article 182), an employer is obliged to issue personal protective equipment at its own expense, guided by the norms for issuing special clothing and other personal protective equipment to employees of organizations of various types of economic activity. Personal protective equipment of the Republic of Kazakhstan is issued in cases where it is essential to protect an employee from exposure to harmful and (or) hazardous production factors.

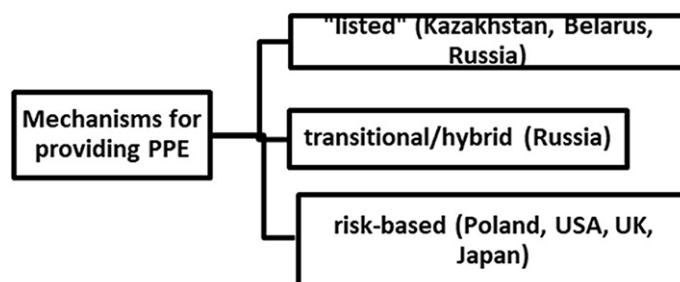
Kazakhstan applies a list of the international and regional (interstate) standards, and in their absence, national (state) standards (Decision of the Board of the Eurasian Economic Commission dated March 3, 2020 No. 30). As a result of which, on a voluntary basis, compliance with the requirements of the technical regulation is ensured through the Customs Union «On the safety of personal protective equipment» (TR CU 019/2011), which contains the scope, definitions, market circulation rules, safety requirements, conformity assessment, the single mark of product circulation on the market of the Member States.

Results

In the course of the analysis, mechanisms and features of the legal regulation of the provision of personal protective equipment used by various countries were studied (Figure).

As can be seen from Figure, the types of PPE provision in different countries are divided into:

- the «list» approach is inherent in the countries of the post-Soviet space, it is based on the issuance of PPE in accordance with special standards for the issuance of PPE, which depend on the type of profession or position of the employee;
- the transitional/hybrid approach is based not only on the issuance of PPE according to special PPE issuance standards, but also on the assessment of occupational risks, which the employer is obliged to



conduct;

- the risk-based approach is based on the assessment of occupational risks, and consultations of those responsible for labor protection at enterprises, trade unions and employee representatives.

Conclusion

An analysis of foreign regulatory standards has revealed several models of mechanisms for the provision of PPE. Thus, in the countries of the post-Soviet space, the «list» approach is used to provide PPE in accordance with the rules and standard norms, which is very ineffective in protecting workers under the current conditions, when enterprises do have not so many standard professions as various professional risks or their combinations. Developed foreign countries use PPE provision models based on occupational risk assessment, analyzing specific hazards and production factors of their enterprise, and coordinating the issuance of PPE with employees and their representatives.

In Kazakhstan, a complete rejection of the Standards and the transition of employers to the independent provision of PPE based on a risk assessment (hazards, harmful production factors) is a logical and relevant decision.

Kazakhstan, as a dynamically developing state, is trying to keep up with the times and adopt the best world practices.

In order to move from the strictly regulated approach to the risk-based approach to PPE provision more efficient and dynamic, it is necessary to develop theoretical and methodological foundations for an adequate regulatory and legal framework in the field of PPE provision at enterprises in various industries.

It is also necessary to develop and promote the culture of labor protection of workers, to intensify the activities of their representatives, trade unions, which, together with employers, are responsible for identifying and managing their risks in providing PPE at enterprises.

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Жеке қорғау құралдарын қамтамасыз етудің механизмін әлемдік тәжірибеде қарау

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Аңдатпа. Жұмыста Еуропалық Одақтың, АҚШ-тың, Канаданың, Ресей Федерациясының және басқа елдердің жұмысшыларды жеке қорғаныс құралдарымен қамтамасыз етудің құқықтық актілерінің салыстырмалы талдауы жеке қорғаныс құралдарын беруге «тізбелік» тәсілден өтуді негіздеу үшін қарастырылады. Қазіргі уақытта Қазақстан Республикасында белгіленген стандарттар негізінде жеке қорғану құралдарын шығаруда қатаң реттелген тәсіл қолданылады. Пандемия кезіндегі жаппай жұқтыру жағдайлары қауіп сипатын ескермей, қолданылатын реттеушілік тәсілдің тиімсіздігін көрсетті. Сондықтан бұл бағытта қызметкердің кәсіби тәуекелін ескере отырып, жаңа көзқарастарды ғылыми негіздеу қажеттілігі туындайды. Халықаралық және отандық құқықтық нормаларды қарастыру барысында негізгі айырмашылықтар анықталды, атап айтқанда, қызметкерлердің қауіпсіз жұмысын қамтамасыз етуде ең заманауи және заманауи үрдістер мен шындыққа сәйкес тәуекелге негізделген тәсілді пайдалану. Кәсіптік тәуекелді бағалау нәтижелерімен нақты байланыс орнату жеке қорғаныс құралдарын шығарудың тәуекелге бағытталған тетіктерін және халықаралық құқықтық тәжірибеге сәйкес қауіпсіз еңбектің заманауи шаралары болып табылатын қауіпсіз еңбек әдістеріне оқытуды қамтамасыз етеді. Мақалада «Қазіргі Қазақстан жағдайында қауіпсіз жұмысты қамтамасыз етудің тәуекелге бағытталған ұйымдық-экономикалық механизмдері» (IRN OR11865833-OT-21) тақырыбы бойынша ғылыми-техникалық бағдарламаны жүзеге асыру барысында алынған ғылыми зерттеулердің нәтижелері берілген.

Кілт сөздер: кәсіптік қауіп, кәсіптік аурулар, жарақаттар, зияндылық, қауіптілік, жіктеу, тәртібі, қамтамасыз ету, талдау, еңбекті қорғау, жеке қорғаныс құралдары (ЖҚҚ), ЖҚҚ қамтамасыз ету механизмдері.

Обзор механизмов обеспечения средствами индивидуальной защиты в мировой практике

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Аннотация. Рассматривается сравнительный анализ нормативно-правовых актов обеспечения работников средствами индивидуальной защиты Европейского Союза, США, Канады, Российской Федерации и других стран для обоснования перехода от «списочного» подхода выдачи средств индивидуальной защиты к применяемому в международной практике. В настоящее время в Республике Казахстан применяется строго регламентированный подход к выдаче средств индивидуальной защиты на основе установленных норм. Условия массового заражения в период пандемии показали неэффективность применяемого нормативного подхода, без учета характера риска. Поэтому в этом направлении имеется потребность в научном обосновании новых подходов с учетом профессионального риска работника. В ходе обзора международных и отечественных правовых норм были выявлены ключевые моменты отличий, а именно применение риск-ориентированного подхода как наиболее современного и отвечающего современным трендам и реалиям в обеспечении безопасного труда работников. Установление четкой связи с результатами оценки профессионального риска обеспечивает риск-ориентированность механизмов выдачи средств индивидуальной защиты и обучения методам безопасного труда, которые являются современными мерами безопасного труда согласно международной правовой практике. Представлены результаты научных исследований, полученные в ходе реализации научно-технической программы на тему: «Риск-ориентированные организационно-экономические механизмы обеспечения безопасного труда в условиях современного Казахстана» (IPN OR11865833-OT-21) в рамках программно-целевого финансирования исследований Республиканского научно-исследовательского института по охране труда МТСН РК.

Ключевые слова: профессиональный риск, профессиональные заболевания, травматизм, вредность, опасность, классификация, порядок, обеспечение, анализ, охрана труда, средства индивидуальной защиты (СИЗ), механизмы обеспечения СИЗ.

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