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## GENERAL APPROACHES TO PERSONNEL SECURITY OF THE ENTERPRISE

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### Key words:

security, personnel, employees, staff, development, qualification, salary, psychological climate, motivation

It is established that the most acceptable principles of building a system of social security indicators are: objectivity; practicality; complexity; end-to-end presentation, taking into account the need to determine social security criteria by levels (state, regional, personal); unambiguous interpretation for decision-makers to eliminate and minimize the impact of threats; compliance with the current features of decision-making; clarity of construction, transparency, simplicity and lucidity; flexibility and reflection of changes; representativeness for comparisons; quantity limit. Theoretical campaigns to the essence and content of personnel security by different authors have been studied. It is analyzed that the process of ensuring personnel security in most researchers is associated with the measures for preventing theft, damage to property and various destructive actions by the staff of the organization. The focus is on the assessment of the elements of personnel security of the enterprise, which is proposed to be carried out by establishing the normative value of costs for the relevant activities of enterprises in a particular industry. Levels of ensuring of personnel security are considered in connection with the complexity, variety and complication of tasks. Personnel security is revealed on the basis of JSC "Kryvbaszalizrudkom", where the main elements of personnel security are: establishing strategic priorities for personnel security in general and by components, monitoring the state of personnel security, determining specific measures to maintain or change personnel security parameters based on scientific application of methods in general and some of its aspects, the implementation of measures to ensure personnel security. The main methods of ensuring personnel security of JSC "Kryvbaszalizrudkom" are revealed. A comparative analysis of the integrated index of personnel security and the total value of indicators for certain components on the example of the studied enterprises: JSC "Kryvbaszalizrudkom" and PJSC "Zaporizhzhia Iron Ore Plant". It is noted that the formation of personnel policy of JSC "Kryvbaszalizrudkom" is a process of determining the key characteristics of its staff in accordance with current and strategic production demands. The ways of effective use of personnel technologies of JSC "Kryvbaszalizrudkom" are revealed, which will allow to solve a number of important tasks concerning personnel safety of the enterprise.

## ЗАГАЛЬНІ ПІДХОДИ ЩОДО КАДРОВОЇ БЕЗПЕКИ ПІДПРИЄМСТВА

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### Ключові слова:

безпека, кадри, працівники, колектив, розвиток, кваліфікація, заробітна плата, психологічний клімат, мотивація

Встановлено, що найбільш прийнятними принципами побудови системи індикаторів соціальної безпеки є: об'єктивність; практичність; комплексність; наскрізне подання, що враховує необхідність визначення критеріїв соціальної безпеки за рівнями (державний, регіональний, особистісний); однозначність інтерпретації для осіб, які приймають рішення щодо усунення та мінімізації впливу загроз; відповідність діючим особливостям прийняття рішень; ясність побудови, прозорості, простоти і зрозумілості; гнучкість та відображення змін; репрезентативність для порівнянь; обмеження кількості. Досліджено

теоретичні походи до суті та змісту кадрової безпеки за різними авторами. Проаналізовано, що процес забезпечення кадрової безпеки у більшості дослідників асоціюється з процесом запобігання крадіжкам, псування майна і різного роду деструктивних дій із боку персоналу організації. Зосереджена увага на оцінці елементів кадрової безпеки підприємства, яку пропонується проводити методом встановлення нормативної величини витрат на відповідні заходи підприємств окремої галузі. Розглянуто рівні забезпечення кадрової безпеки у зв'язку з комплексністю, різноманітністю і складністю завдань. Розкрито кадрову безпеку на основі АТ «Кривбасзалізрудком», де основними елементами забезпечення кадрової безпеки є: встановлення стратегічних пріоритетів щодо кадрової безпеки в цілому і за складовими, моніторинг стану кадрової безпеки, визначення конкретних заходів по збереженню або зміні параметрів кадрової безпеки на основі застосування науково-обґрунтованих методів загалом і окремих її аспектів, реалізація заходів по забезпеченню кадрової безпеки. Розкриті основні методи забезпечення кадрової безпеки АТ «Кривбасзалізрудком». Зроблений порівняльний аналіз інтегрального індексу кадрової безпеки та сумарне значення індикаторів за певними складовими на прикладі досліджуваних підприємств: АТ «Кривбасзалізрудком» та ПРАТ «Запорізький залізрудний комбінат». Зазначено, що формування кадрової політики АТ «Кривбасзалізрудком» є процесом визначення ключових характеристик його кадрового складу відповідно з поточними та стратегічними виробничими запитами. Розкриті шляхи щодо ефективного використання кадрових технологій АТ «Кривбасзалізрудком», що дозволить вирішити низку важливих завдань щодо кадрової безпеки підприємства.

### Formulation of the problem

Analysis of different points of view on the concept of personnel security allows us to note that some approaches characterize it narrowly and do not fully disclose the content. Therefore, from the standpoint of systemic and resource-functional approaches, the content of the category «personnel security» is characterized by the presence of the most effective structure of personnel of the enterprise, upon which the effective functioning of all components of the economic system is occurred, providing security and ability to withstand internal and external influences, related to staff, ensurance of mutual satisfaction of their interests and development.

Based on the methodology of scientific analysis, the most acceptable principles of building a system of social security indicators are the following:

- objectivity, i. e. scientific validity taking into account the achievements of natural and social sciences;
- practicality (applied), which characterizes the possibility of practical application of indicators to assess the depth of socio-economic problems in the country (region) and accurate diagnosis of threats to the social security system;
- complexity, i. e. the ability to combine and reflect the economic and social aspects of security;
- end-to-end presentation, taking into account the need to determine social security criteria by levels (state, regional, personal);
- unambiguous interpretation for decision-makers to eliminate and minimize the impact of threats;
- compliance with the current features of decision-making;
- clarity of construction, transparency, simplicity and lucidity;

- flexibility and reflection of changes;
- representativeness for comparisons;
- limited quantity.

However, we note that the full set of these principles is not ideal. Therefore, the assessment of the elements of personnel security of the enterprise is proposed to be carried out by establishing the normative value of costs for the relevant activities of enterprises in a particular industry. This will allow to determine the compliance of costs in comparison with the general trend. The calculation standard can be taken as the industry average. Indicators must meet the maximum number of criteria and contain thresholds for indicators.

### Analysis of recent researches and publications

Theoretical approaches to personnel security have become the subject of study of domestic and foreign authors, such as: O. Arefieva, I. Burda, E. Hrechko, A. Meheda, I. Moisienko, M. Petrov, N. Reverchuk and others. However, the analysis of the theory and practice of personnel security shows that in many enterprises its provision is not always effective, mainly because there is no full scientific, methodological and informational basis in this area of management, absence of effective experience in personnel risks management in the organization and their audit.

### Formulation of the goals of the article

The purpose of this article is to summarize the conceptual approaches to defining the essence of the concept of personnel security of the enterprise.

### Presentation of the main material of the study

Analysis of theoretical approaches to the essence and content of personnel security will show that the process of personnel security in most researchers is associated

with the measures for preventing theft, damage to property and various destructive actions by staff of the organization [1; 10]. However, most scientists define personnel security as part of the general or economic security of a particular socio-economic system. In particular, I. Burda interprets personnel security as an integral part of economic security of the enterprise, the priority of which is protection against threats and risks to create the most effective personnel management, as a determining resource for ensuring a high level of enterprise competitiveness [1]. N. Reverchuk argues that personnel security of the enterprise is to prevent and reduce the risk of negative impact on the economic security of insufficiently qualified employees of the enterprise, inefficient personnel management to preserve and develop the intellectual potential of the enterprise [10]. Within the framework of this definition, negative influences on the part of staff are limited only to their illegal actions, which is not entirely true, as threats to personnel security can be both actions and inaction of staff, as well as their lack of qualifications, inappropriate behavior in conditions of risk or uncertainty. The focus of personnel security on the prevention of threats allows us to argue about the use of a preventive approach to personnel security management of the organization. N. Meheda and N. Marenych claim that the personnel security of the enterprise can be studied as a combination of such components of life safety as social-motivational, professional and anti-conflict [7]. It is obvious that the subject of personnel security chosen by the author is only the interests of the organization, which can often contradict the vital interests of staff, which, in turn, leads to threats to personnel security. The interests of both the organization and the hired staff should be the subject of personnel security, and its result should be their mutual protection in relation to all participants in social and labor relations. Noncompliance with the balance of vital interests, when the security of one facility is achieved by limiting the interests of another, leads to a violation of personnel security. M. Petrov clarifies the definition of personnel security from the standpoint of subject-object approach: personnel security is a position of the organization as a social community and the individual in it, in which they are influenced by the natural, economic and social environment, as well as internal environment of man himself is not capable of causing any harm. S.V. Kondratieva determines the personnel security of the enterprise as a set of actions aimed at ensuring the process of interaction between employees to perform basic personnel work and measures that will reduce the negative impact of factors both external and internal environment of the enterprise. O. Lytovchenko identifies personnel security as a set of management measures related to the effective formation and use of human resources of the enterprise to ensure and maintain economic stability and efficiency of economic activity of the enterprise [5].

Due to the complication, diversity and complexity of the tasks of personnel security, it is advisable to consider them in terms of the following levels:

1. Strategic level is to eliminate contradictions or their localization and weakening. This level is characterized

by the development of system-forming solutions, which are reflected in strategies, promising programs to ensure personnel security. Ensuring social responsibility of the enterprise.

2. Tactical level is to solve problems related to the elimination of specific types of threats or prevent their impact. It includes a set of preventive measures.

3. Operational level. Personnel security should be reflected in the elimination of the consequences of threats and negative impacts, compensation for losses; contains a set of operational security measures.

We consider personnel security on the basis of JSC «Kryvbaszalizrudkom», where the main elements of personnel security are:

- setting strategic priorities for personnel security in general and by components;
- monitoring of the state of personnel security;
- determination of specific measures to preserve or change the parameters of personnel security based on the use of scientifically sound methods in general and its individual aspects;
- implementation of measures to ensure personnel security.

The main methods of ensuring the personnel security of the enterprise include:

- clear accounting and financial accounting of activities, audit of documentation;
- careful selection of personnel, certification of jobs under working conditions, monitoring of relations in the team, communications at the enterprise, checking employees for belonging to any risk group, detailed analysis of staff movements and their causes;
- control over communications at the enterprise, attention to the relationship in the team, audit of documentation, the requirement for mandatory reporting on business transactions within the enterprise;
- promoting team cohesion, increasing staff commitment;
- conducting a social audit – a specific form of analysis, verification of the social environment of the enterprise, in order to identify social risk factors and implement proposals to reduce them – is the result of development of other forms of audit, including management and financial, by expanding performance criteria because it includes many social factors [2].

For example, an employee of JSC «Kryvbaszalizrudkom» of a certain qualification receives a salary at the company below the industry average, despite the fact that the company earns more profit than other companies, then he may feel resentment because of underestimation of his work. In the future, resentment can escalate into dissatisfaction and conflict with management, diminished productivity, reduced self-sacrifice, degraded loyalty and many other negative consequences. This employee can become an object of personnel security that can be easily influenced in order to cause material damage to the company. All this will negatively affect the level of personnel security of the enterprise in the future. If there are a large number of such dissatisfied workers, the level of personnel security decreases sharply and the threat

to the economic security of the enterprise as a whole appears.

In the table 1 the components of personnel security are shown: weights of the j-component of  $b_j$ , coefficients that determine the degree of contribution of the i-indicator in

the integrated index  $a_{ij}$  ( $b_j$  and  $a_i$ , determined by experts) for the studied enterprises: JSC «Kryvbaszalizrudkom» and PJSC «Zaporizhzhia iron ore plant».

Thus, the integrated index of personnel security of the enterprise (Fig. 1) is determined hierarchically: at the lower

Table 1 – Components of personnel security

Components of PS	Personnel security indicators	Weight coefficients, $a_{ij}$
Social and motivational security (b 1 =0,35)	Staff turnover coefficient (C st) 0,045	Staff turnover coefficient (C st) 0,045
	Indicator of staffing (I staff ) (R afWT / mpWT) 0,0151	The ratio of the actual fund of working time of the 1st employee and the maximum possible 0,0059
	Ratio of the actual value of the industrial enterprise and the optimal in the field of industrial enterprises (R avIE/ofIE ) 0,0184	Coefficient of age structure of personnel (C age st) 0,0294
	Coefficient of personnel specialization (C per spec) 0,0196	Ratio of average monthly salaries in the enterprise and the average monthly salary in the industry (R enS/inS ) 0,0386
	Salary motivation indicator (I motS ) 0,0518	Proportion of employees who received the minimum salary during the year (P minW) 0,0561
	Ratio of growth of industrial enterprises and salary (R gIE/S) 0,0282	Coefficient of social protection of personnel (C spp) 0,0419
	Indicator of staffing (I staff ) (R afWT / mpWT) 0,0151	The ratio of the actual fund of working time of the 1st employee and the maximum possible 0,0059
	Ratio of the actual value of the industrial enterprise and the optimal in the field of industrial enterprises (R avIE/ofIE ) 0,0184	Coefficient of age structure of personnel (C age st) 0,0294
Professional security (b 2 =0,25)	Coefficient of educational level of employees (C ed.l) 0,0505	Coefficient of use of personnel qualification (C use.pq) 0,0363
	Coefficient of intellectual level and invention (C int.l. and inv) 0,0207	The coefficient of defect-free work of staff (C d-fwork) 0,0296
	Proportion of employees trained during the year (P etr) 0,0146	Proportion of employees who improved their skills during the year (P imp sk) 0,0159
	Coefficient of information resources (C inf.r) 0,0358	Coefficient of information security (C inf.sec) 0,0466
	Coefficient of educational level of employees (C edu.l) 0,0505	Coefficient of use of qualification of personnel (C use.qp) 0,0363
	Coefficient of intellectual level and invention (C int.l. and inv) 0,0207	The coefficient of defect-free work of staff (C d-fwork) 0,0296
	Proportion of employees trained during the year (P etr) 0,0146	Proportion of employees who improved their skills during the year (P imp sk) 0,0159
	Coefficient of information resources (C inf.r) 0,0358	Coefficient of information security (C inf.sec) 0,0466
Anti-conflict security (b 3 =0,25)	Level of development of corporate culture (L corp.c) 0,0258	Level of regulation of social and labor relations (L regl.SLR) 0,0208
	Level of value-oriented unity of the team (L VOU) 0,0127	Degree of satisfaction of employees with leadership style (D sat.em) 0,0196
	Degree of employee satisfaction with work (D sat.w) 0,0517	Degree of employee satisfaction with the work of the management staff service (D sat.MSS) 0,0224
	Correlation of the level of conflict at the enterprise with the average industry level (C eLC / iLC) 0,0218	Share of resolved destructive conflicts at the enterprise (Sh des.conf) 0,031
	Level of staff loyalty (L loya) 0,0442	
	Level of development of corporate culture (L corp.c) 0,0258	Level of regulation of social and labor relations (L regl.SLR) 0,0208
	Level of value-oriented unity of the team (L VOU) 0,0127	Degree of satisfaction of employees with leadership style (D sat.em) 0,0196
	Degree of employee satisfaction with work (D sat.w) 0,0517	Degree of employee satisfaction with the work of the management staff service (D sat.MSS) 0,0224
Correlation of the level of conflict at the enterprise with the average industry level (C eLC / iLC) 0,0218	Share of resolved destructive conflicts at the enterprise (Sh des.conf) 0,031	
Security vital activity (b 4 =0,15)	Coefficient of labor discipline (C ld) of acts on production safety (A ps) 0,0571	Coefficient of reduction of the number of jobs that do not meet the requirements of regulatory requirements of sanitary norms (C red. san n) 0,033
	Coefficient of reduction of the number of employees working in conditions that do not correspond to (C red. Non-cond) 0,0326	Coefficient of reduction of cases of occupational diseases and injuries (C red. DI) 0,0273



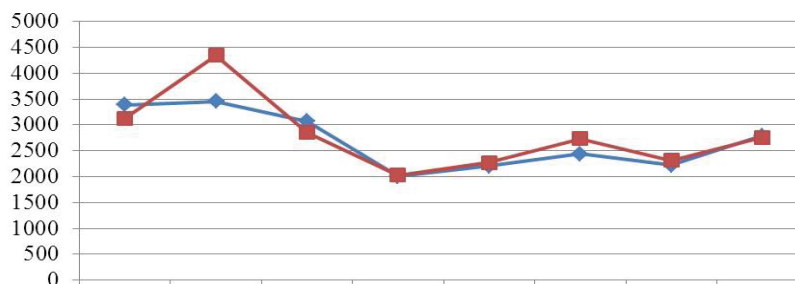


Fig. 1 – Integrated index of personnel security of the surveyed enterprises and the total value of indicators for certain components

level the indices of individual components are situated, at the top level – the generalized index.

If we draw conclusions about the value of the integrated index on the Harrington scale, we should distinguish the company JSC «Kryvbaszalizrudkom», which has a «high level of personnel security» (numerical score = 0.6497), and PJSC «Zaporizhzhia Iron Ore Plant» has an «average level personnel security» (numerical score in the range from 0.37 to 0.62).

Thus, the formation of personnel policy of JSC «Kryvbaszalizrudkom» is a process of determining the key characteristics of its staff in accordance with current and strategic production demands.

Effective use of personnel technologies will allow solving a number of important tasks related to personnel security of JSC «Kryvbaszalizrudkom»:

1) identification and prevention of threats associated to personnel: their illegal activities, disclosure of «trade secrets», collusion with competitors, direct damage to the company, creating a negative moral, ethical and psychological climate in the team;

2) collection and processing of information about future employees for further decision by the manager on their employment or refusal;

3) data compilation and processing about employees, for further decision on their access to confidential information, or participation in particularly important projects for the company;

4) observation of socio-psychological aspects in the process of personnel management, the study of the psychological climate in the workforce and relations among employees;

5) conducting official investigations in cases of revealing the facts of employees' activities that harm the safety of the enterprise;

6) identification of potential «risk zones» among those employees of the enterprise who work and those who are hired – people who in certain circumstances may harm the enterprise;

7) obtaining information for making problematic management decisions: assessment of the candidate for the vacancy, adjustment of motivation policy, development and retention of key employees, analysis of employee loyalty, evaluation of corporate culture, recognition of structural units that are a source of threats, management errors.

### Conclusions

The main goal of ensuring personnel security of JSC «Kryvbaszalizrudkom» should be to comply with the principle of permanent productive employment of each employee, i. e. the entire stay of the employee at the company should be spent on job responsibilities and production tasks, taking into account, of course, intermittent breaks for leisure and personal needs. If the employee spends time inefficiently and there are downtimes caused by violations of technology and organization of production, neglect of discipline and internal labor regulations, such an employee is a potential threat to the company in terms of personnel and economic security in general. Free and unproductive time can be used by a «threat worker» to obtain confidential or secret information of the company, to provoke conflicts with other employees or direct management, to cause direct material damage to the company, and so on. Depending on the reasons for the unproductive waste of time, the scale and extent of damage that may be caused by such an employee to the company or individual employees differ.

Researches show that the concept of «personnel security» is difficult to achieve and depends on internal and external actions. In general, it is necessary to distinguish between internal and external threats to economic security that hinder the smooth running of business, namely, threats from business, government, competitors and employees, and so on. Threats to personnel security in Ukrainian enterprises are the result of negative changes in the high economic environment, labor market and related to systemic problems of enterprises themselves.

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