

Determination of the Level of Professional Risk Taken into Account of the Class of Working Conditions of Workers in Enterprises Producing Plastic Products

Sharipova Sazhida Akhmetzhanovna
Tashkent Medical Academy

Abstract: The article, based on the indicators of the “class of working conditions,” determines the average criteria for occupational harm to the health of workers in the main profession at an enterprise producing plastic products. Taking into account the class of working conditions in terms of harmful and dangerous factors, the criteria for occupational risk of enterprise employees relate to the “minimum” criteria for freight forwarders and the “average” criteria for other professions. This indicates that extrusion machine operators, foundry foundry workers, accountants and assistant managers work in hazardous working conditions due to the severity and intensity of the work.

Keywords: plastic production, harmful and dangerous factors, workers' health.

Introduction.

An analysis of literary materials showed that the working conditions of workers working in the workshops of an enterprise for the production of plastic products are influenced by various production factors and stress indicators of the labor process. In enterprises of this type, it is necessary to determine the main types of sanitary and hygienic measures (1).

Risk factors are a group of factors of a biological, genetic, environmental, medical and social nature associated with the external environment, production conditions and lifestyle that pose a threat to human health, cause the occurrence and development of diseases and lead to bad consequences. . In public health, the concept of risk refers to the likelihood of changes in health (health indicators) under the influence of a certain risk factor. Risk factors can be divided into 2 groups: exogenous (lifestyle, living conditions, diet, rest, work) and endogenous (hereditary). The endogenous type of risk factors includes diseases associated with certain genes, and the exogenous type includes infectious agents, pharmacological drugs, toxins or lifestyle factors: smoking, excessive alcohol consumption, unhealthy diet, improper organization of work and rest. Sex life can be an example. It is known that human health is mainly influenced by 4 groups of factors: lifestyle - 50%, nutrition - 20%, external environmental factors - 20%, healthcare - 10%. So, health largely depends on the character, behavior, behavior and lifestyle of a person. The development of diseases depending on the time of exposure to a risk factor for disability, on how many times it was exposed: one-time (for example, exposure of the population due to the explosion of a nuclear power plant) and long-term. -urgent – continuous (long-term smoking, alcohol consumption).

Purpose of the study: to determine the level of occupational risk taking into account the class of working conditions of employees of enterprises producing plastic products.

Research methods: When assessing working conditions according to hygienic criteria, the aprif assessment method is used to determine the level of occupational risk.

Result and conclusion:

Identification of occupational risks in the prevention of modern medicine is focused on the interpretation of the conditions and nature of work, which helps to identify the causes of morbidity. As a result, it helps to identify the causes of occupational and work-related diseases.

The individual sensitivity of the body to observed changes in the health status of workers is determined by the action of harmful and dangerous production factors. Solving these problems is one of the pressing problems of occupational hygiene, and conducting research in this direction helps to determine the causes of occupational diseases and develop preventive measures.

The labor activity of employees of production enterprises is carried out in the production environment under certain conditions and in the labor process. Failure to comply with these working conditions, that is, failure to comply with technical and hygienic requirements, has a negative impact on work and human health. Labor activity is aimed at adapting the tools necessary for human life to the work being performed. Labor consists of three elements - human labor activity, tools of labor, and the product of labor.

According to the recommendations of world practice, any production activity is dangerous, and it is impossible to ensure its absolute safety. All processes performed by man and the environment in which he lives, primarily technological and technical products, positive properties and

Apart from the results, everything is dangerous and causes negative factors. Based on the indicators of the “class of working conditions,” the average criteria for occupational harm to the health of workers in the main profession at an enterprise producing plastic products were determined (Table 1).

Table 1. Criteria for occupational risk taking into account working conditions in terms of harmful and dangerous factors.

Main professions	Classes of working conditions according to the cost of harm and danger	Occupational risk criteria
Forwarder	2	Minimum
Extrusion machine operator	3.2	Average
Foundry worker at the foundry site	3.2	Average
Accountant	3.2	Average
Assistant Manager	3.2	Average

Thus, taking into account the class of working conditions in terms of harmful and dangerous factors, the criteria for occupational risk of enterprise employees relate to the “minimum” criteria for freight forwarders and the “average” criteria for other professions. This indicates that extrusion machine operators, foundry foundry workers, accountants and assistant managers work in hazardous working conditions due to the severity and intensity of the work. In such conditions, workers are exposed to unfavorable factors and are at high risk of developing nonspecific pathologies. This, in turn, affects the health of workers. The reason for this is that the production equipment used in the production process is not up to standard, workers are exposed to harmful and dangerous factors, and the work is performed with heavy manual labor. Therefore, occupational health doctors are faced with the task of introducing technological processes, improving production facilities, and developing differentiated preventive measures aimed at maintaining hygienic safety in order to reduce the occupational risk of workers.

Hygienic forecasting of relative health risks for workers.

Occupational medicine takes into account not only the health, but also the social protection of workers. When assessing working conditions according to hygienic criteria, the aprif assessment method is used to determine the level of occupational risk. Since the aprif estimation method is the original comparative method, it also uses the posterior method. The apostrophe method is the definitive method for determining risk. Indicators of the impact of adverse occupational factors on the body of workers include health status, occupational and related diseases, as well as integral indicators calculated on their basis. In the modern concept of the World Health Organization, the criterion for safe working conditions in production is the preservation of human health, the functional state of the body, the period of a person's future life and the health of the future generation.

Taking this into account, work-related occupational hazards can pose a danger to human life and health. Risk includes:

- a) mortality from harmful factors observed in the profession, as a result of acute and chronic exposure. If this is related to the profession, it does not depend on the duration of the disease;
- b) injury;
- c) occupational diseases caused by work-related factors.

Such occupational diseases are observed during one working day or one work shift.

Risk assessment is based on indicators of harmful and dangerous factors in the working environment, the severity of labor in the labor process, and hygienic criteria for working conditions. An affiliative assessment of occupational risk is carried out on the basis of medical and biological indicators: occupational diseases, the level of morbidity due to temporary disability, reproductive health disorders, the health of the unborn child, increasing biological age, etc. The occurrence and growth of occupational diseases can be predicted, for example, by calculating based on the results obtained indicators of noise, vibration, dust. The growth of occupational diseases in the dynamics of labor levels can be divided into 3 risk zones - safe, borderline, and dangerous zones. The safe zone is observed in workers with short work experience; there are no signs of changes in their health, but they require attention for a certain period of time. The maximum occupational exposure zone increases from the RPM. This area is dangerous because some workers have health changes that require special attention. Exposure to hazardous work is very high, and there is a large number of occupational diseases that cause medical and social damage.

Risk factors for occupational diseases are higher in professions with above average experience. Evaluating the results of such an analysis helps determine the duration of exposure to harmful factors in the labor process that does not pose a risk to the health of workers, and take into account their duration. Preventive measures, that is, time protection, development of a work and rest schedule, reduction of working hours, provision of additional leaves, expand the safety of work experience. Relative risk criteria have been determined that determine the health status of workers in the main profession of an enterprise producing plastic products. These criteria are determined by the general class of working conditions. According to the hygienic classification developed by G. E. Denisov, the health status of workers belongs to class 3.2 to determine the level of occupational dependence in relation to the relative risk of health changes. The relative risk indicator is RR- 2.0-3.0 (Table 2).

Table 2. Indicators of changes in health status

Classes of working conditions	Relative risk RR
2	
3.1	1.3-2.3
3.1-3.2	2.0-2.7

3.2	2.0-3.0
3.2-3.3	3.0
3.3	2.7-4.2
3.2-3.4	4.2-3.0
3.3-.3.4	4.1-4
4	5

It follows that the degree of occupational dependence is moderate in relation to the relative risk of changes in the health status of the company's divisions. Their relative risk is $1.5 < RR \leq 2$ (Table 3).

Table 3. The degree of dependence of changes in health status on relative risk.

№	Degree of dependence	Relative risk RR
0	There is no degree of dependence	$0 < RR \leq 1$
1	Little XX	$1 < RR \leq 1,5$
2	Average XX	$1,5 < RR \leq 2$
3	Upper XX	$2 < RR \leq 3,2$
4	Very high XX	$3,2 < RR \leq 5$
5	Extremely tall XXX	$RR > 5$ XXXX

In conclusion, the higher the relative risk index, the higher the association between risk factors and morbidity.

Conclusion.

Based on the above, occupational risk criteria have been determined depending on the health status of workers based on classes of working conditions to assess the working conditions of enterprise employees. As a result, scientific research has led to a comprehensive assessment of health indicators and integral indicators of the working environment, the severity and intensity of work. This is the basis for the development of preventive measures aimed at preventing negative factors that have a negative impact on the health of workers that arise during work.

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