

ANALYSIS OF METHODS FOR DETERMINING DANGEROUS AND HARMFUL FACTORS IN THE LABOR PROCESS

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Abstract. *The paper offers a theoretical examination of approaches for identifying hazardous and risky elements in the working environment. Four typical study methodologies have been identified for identifying risks in labor processes. The norms for classifying working conditions are analyzed, and findings are provided, depending on the variables of unsafe production at work and the factors of harmful production, in fact, how much has increased from the norms.*

Keywords: *labor conditions, labor weapons, injuries, harmful effects, degree of harmfulness and danger, jobs, dangerous and harmful factors, production, occupational diseases, sanitation.*

Introduction. A person connects to other individuals, labor-related objects and weapons while engaging in labor. A person is also affected by environmental factors (such as temperature, humidity, noise, vibration, hazardous objects, different radiation, etc.) that are specific to each production. Workplace conditions are significantly influenced by a person's health, capacity for work, attitude toward work, and performance[1].

The process of labor, or the amount of work done, is determined by the working environment, the state of the worker's body while working, the level of psychological tension of the nerves, the manner in which the worker moves, which affects the tension in various body organs, and the environment[1,2].

The improvement of working conditions in turn leads to a decrease in the dynamics of the occurrence of acute or chronic occupational diseases caused by the influence of an employee on him by a harmful factor of production or a dangerous factor of production and causing a temporary or stagnant loss of his professional working capacity[1].

Literature analysis and research methods. Numerous studies demonstrate that in workplaces with bad working conditions, productivity is low, and the risk of accidents and the occurrence of occupational diseases is substantially higher than in workplaces with good working conditions.

Application of technological processes (types of work), methods, and modes of work in the process for maintaining production equipment; Application of raw materials and semi-finished products, components that do not negatively impact developers; If this requirement is not possible, taking measures to ensure the safety of the production process and the protection of employees; application of production equipment; proper placement of production equipment and proper organization of workplaces; the use of safe methods of storage and transportation of primary material and semi-finished products, finished products and production waste in vehicles; the use of protective equipment corresponding to the nature of hazardous and harmful production factors; the implementation of safety requirements associated with the designation of hazardous areas at the time of

Enterprise operations should include standards for sanitary production and worker protection. They cover things like regulations for water quality, production sanitation rules, health, personal hygiene, and personnel dress codes, as well as disposal techniques for garbage and unused residue[3]. Such standardized procedures ought to be created as separate regulatory papers that are constantly cited in technology regulations[4]. If a given production is covered by the regulation document on production sanitation, it is created in accordance with a technological Regulation [5].

Assuring that jobs meet the requirements of regulatory documents and regulatory legal acts in the area of technical regulation on labor protection issues involves a number of activities that assess how well working conditions, the severity and severity of the labor process at work, and their danger in terms of injury comply with those requirements. They also identify the production factor that is harmful.

Numerous study techniques are used to lower labor process risks and avoid accidents related to the profession of work[2]. Let's take a closer look at the following popular study techniques to determine risks in labor processes:

1. Engineering methods. In this way, a risk probability analysis is carried out based on the statistics collected about all the elements involved in the production process, and a risk tree is built.

2. Model methods. Based on the results of preliminary data and observations collected during the production process, models of the impact of harmful and dangerous factors on each person, professional and social groups of the population are built.

3. Expert methods. The probability of dangerous events is estimated through a survey of specialists in a particular discipline, engineering or technology.

4. Sociological methods. The likelihood of dangerous events that occur during the production process is determined by conducting a survey with the population.

The above methods of study have indicators of efficiency in aging and its place of implementation.

The risk analysis process includes the following main steps[6]:

at the stage of planning and organization of work, to identify and briefly describe the item of risky production that has to be evaluated; to explain the circumstances and issues that made a risk analysis necessary; to specify and characterize sources of information about the harmful object, to define a group of performers for carrying out a risk analysis, correct determination of the risk analysis's aims and objectives; justification of the risk analysis's techniques; It is done to determine acceptable risk standards.

identification and thorough description of all sources of risk, the situations that might arise during the risk identification stage. This stage of the analysis is crucial. Considering that hazards that are not discovered now will not be researched later and will be disregarded;

risk assessment with the use of the analysis method at the stage, it is allowed to use the available calculation methods in all official documents, which do not contradict the regulatory documents of the Republic of Uzbekistan;

the risk reduction recommendations development phase is the culminating phase of risk analysis. The recommendations outline justified risk mitigation measures based on risk assessment results.

Results. These risks are categorized into four types by GOST 12.0.003-91, "Dangerous and Harmful Factors of Production": physical, chemical, biological, and psychological. Hazardous physical factors of production include moving machinery and mechanisms, lifting, handling, and

cargo propulsion equipment, as well as obstructed production equipment (such as cutting tools, rotating and sliding devices, and conducting and transmitting mechanisms) and splashing particles from the material and instrument being processed [7]. Dangerous and harmful physical factors of production include: increased or decreased temperature of the working zone air; high humidity and speed of the air; increased levels of noise, vibration, ultrasound, and other radiations; heat, ionizing, electromagnetic, infrared, etc.; dust and harmful gases of the working zone air; inadequate illumination of the workplace and walking paths; excess brightness of light and pulsation of the Dangerous and harmful chemical factors of production include: It is categorized into the following classes according on how it affects the human body: General poisoning, causative, sensitized, carcinogenic (causes tumors), mutagenic (affects the body's heredity), and affects the capacity to reproduce.

Acidic and alkaline liquids are included in this category; they burn the skin. Microorganisms (bacteria, viruses, etc.) and macro organisms (plants and animals) are hazardous and toxic biological factors of production that can harm or sicken a human. Physical exertion (static and dynamic), as well as neuromuscular exertion (mental exertion, hearing exhaustion, and weariness of the visual organs), are dangerous and damaging psycho-physiological elements of production [9].

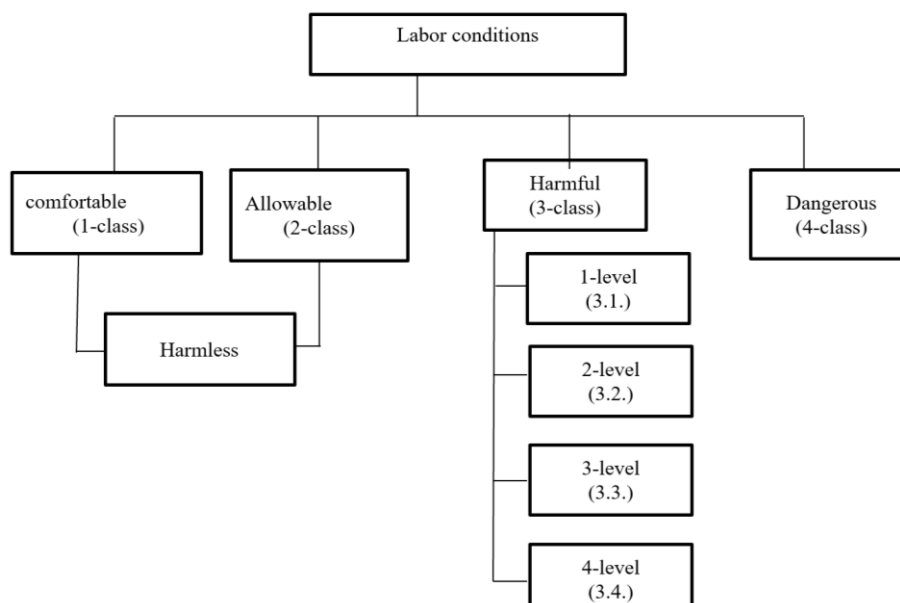
Depending on how much they have increased from the norms, harmful and dangerous production elements at work actually determine the class of working conditions.

The assessment of working conditions, taking into account the joint and joint effects of production factors, is carried out as follows.

Based on the results of the measurement, working conditions for individual factors are assessed in accordance with the applications and requirements of the above sections[6].

A general assessment of working conditions is determined by the degree of harmfulness and danger:

- A) by highest class and degree of harmfulness;
- B) if 3 or more factors belong to class 3.1, then the general assessment of working conditions corresponds to class 3.2;
- C) in the presence of two or more factors of grades 3.2, 3.3, 3.4, working conditions are rated one degree higher, respectively.



Classes of working conditions

The proper organization of labor has a good impact on a person's body, increasing confidence via lightness and strength. The study of human physiology aids in establishing a regular work schedule, improving productivity, and identifying the appropriate position for the worker to be in while carrying out various tasks[10].

Extreme bodily weariness is a condition that increases the risk of future illness, lowers the body's capacity for work, and lowers its resistance to infectious diseases. Injury rates may rise as a result of exhaustion and acute exhaustion in the workplace[11].

Conclusion. The ability to work is the key indicator of someone's labor activity. The capacity to work refers to one's capacity to carry out tasks that must be completed in a specific amount of time and with a certain level of quality. The physical capacity of the body changes during labor activity.

Being compliant with current Republican regulations and international standards for quality, safety, and health management systems is one of the crucial prerequisites for the creation of a labor security management system.

The steps to improve the working conditions include the introduction of new technology production methods as well as general rebuilding. Additionally, it is advised that the team, enterprise leaders receive approval from the central trade committees of the network, develop measures for labor protection, enhance working conditions, and implement sanitary and hygienic measures within the framework of the network's ministries.

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