

ANALYSIS OF THE CAUSES OF INDUSTRIAL ACCIDENTS

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АНАЛИЗ ПРИЧИН НЕСЧАСТНЫХ СЛУЧАЕВ НА ПРОИЗВОДСТВЕ

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Аннотация. В данной статье приводятся и анализируются основные причины возникновения несчастных случаев и травм на производстве. Автор дает определение "несчастного случая", перечисляет основные группы причин возникновения несчастных случаев на предприятии.

Abstract. This article presents and analyzes the main causes of accidents and injuries at work. The author defines an "accident", lists the main groups of causes of accidents at the enterprise.

Ключевые слова: Несчастный случай, травма, средство индивидуальной защиты, правила техники безопасности, предприятие.

Keywords: Accident, injury, personal protective equipment, safety regulations, company

In the modern world, it is impossible to imagine our life without various kinds of industries and enterprises that are being places of increased danger. Unfortunately, accidents and industrial injuries are quite common all over the world. Nevertheless, specialists and special departments for industrial safety are developing special rules and regulations to ensure the safety of employees of enterprises. In this article, we will review and analyze the most common causes of industrial accidents.

Firstly, we consider the concept of "accident". An "accident" is an unforeseen event (a sequence of

events) that leads to injuries, threats and damage, as well as a potentially dangerous event. According to another definition, an "accident" is an unforeseen event, an unexpected combination of circumstances that caused bodily injury or death. Accidents, depending on the causes, place and time of the incident, are divided into two groups: accidents related to industrial actions; accidents not related to industrial actions (domestic injuries). An industrial accident is a serious traumatic impact on an employee of a dangerous production factor during the performance of his work duties.

Conditionally, the whole set of causes of a dangerous production factor that lead to accidents at work can be divided into several groups:

- Technical reasons. Such reasons can be characterized as occurring due to "shortcomings" of technological processes, design flaws and the technical condition of equipment, buildings and structures;
- Sanitary and hygienic reasons. These reasons include the increased content of harmful substances in the air of working areas, insufficient lighting, increased noise, vibration, adverse meteorological conditions, etc.;
- Organizational reasons. Here, the causes of accidents are deficiencies in the maintenance of the territory of the enterprise, driveways for vehicles, passages, violation of the usage rules of equipment, deficiencies in personnel training, the use of tools and equipment for other purposes. Organizational reasons also include the unsatisfactory condition or lack of personal protective equipment of personnel;
- Personal (psychological and psychophysical) reasons. The physical and neuropsychic overload of the worker, leading to erroneous human actions. A person can commit erroneous actions due to fatigue caused by large physical overloads, mental overstrain. Injuries and accidents can be caused by the discrepancy between the anatomical, physiological and mental characteristics of the human body and the nature of the work performed.

According to statistics on the causes of industrial accidents in Russia, the most common causes are the organizational reasons (about 65%), in particular the non-use of protective equipment by employees: as a rule, 6 accidents out of 10 are associated with the non-use of protective equipment or the usage of non-usable equipment. Why is there such a high percentage of accidents associated with non-use and lack of protective equipment? First we observe the term of the "protective equipment".

Protective equipment is used to prevent injuries or reduce the impact on workers of dangerous and harmful production factors. In relation to personal protective equipment, there are certain rules and requirements:

- protective equipment should ensure the prevention or reduction of the effects of dangerous and harmful production factors;
- protective equipment should not be the source of dangerous and harmful production factors,
- the choice of a specific type of protective equipment for workers should be carried out taking into account the safety requirements for this process or type of work.
- protective equipment should be used in cases where the safety of work cannot be ensured by the design of equipment, the organization of production processes, architectural and planning solutions and collective protection means. It is very important that protective equipment be evaluated according to protective, physiological, hygienic and operational indicators and must have instructions indicating the purpose and service life of the product, the rules of its operation and storage. Inspections of supervisory authorities often reveal the following violations of the use of protective equipment: the protective equipment purchased by the production does not have certificates of conformity or does not meet labor protection standards, when issuing protective equipment to employees, instructions on the rules of use and the simplest methods of checking serviceability in accordance with the established deadlines are not organized, regular tests of protective equipment, training on their use, not all employers properly keep records of protective

equipment, laundry, cleaning, repairs are not organized, storage of workwear. To prevent accidents related to personal protective equipment, there are special supervisory authorities that conduct inspections on the use of protective equipment at enterprises, assess their condition, evaluate the skills of using protective equipment at employees. Nevertheless, unfortunately, very often the persons responsible for safety violate the regulations and rules for providing personal protective equipment. It is necessary to continue to conduct explanatory conversations not only with employees, but also with the heads of enterprises about how important it is to properly operate personal protective equipment, because this can prevent more than one accident at the enterprise.

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