Dynamics of industrial injuries with the participation of the country's young population. Comparison of indicators

A Kostrov¹, N Stuzhenko¹, I Babenko¹, A Eroshenko³, D Larin¹, N Kobzeva¹²,*

¹Don State Technical University, Rostov-on-Don, Russia
²Rostov State Medical University, Rostov-on-Don, Russia
³K.G. Razumovsky Moscow State University of technologies and management, Rostov-on-Don, Russia

*e-mail: 5976765@mail.ru

Abstract. Labor protection is a system of ensuring the safety of life and health of workers in the process of work, including legal, socio-economic, sanitary and hygienic, psychophysical, treatment and prophylactic, rehabilitation and other measures. The functions of labor protection are the study of sanitation and occupational hygiene, the implementation of measures to reduce the influence of harmful factors on the body of workers in the process of work. The main method of labor protection is the use of safety measures. At the same time, two main tasks are solved: the creation of machines and tools, when working with which the danger to humans is excluded, and the development of special protective equipment that ensures human safety in the labor process, as well as training workers in safe working practices and the use of protective equipment, conditions are created for safe work.

1. Introduction

An industrial accident occurs when a working hazardous production factor is exposed to it at the time of performance of his job duties or tasks of the work manager. Examples of accidents include falling from a height, bruises, dislocations, fractures, cuts, traumatic amputations of various parts of the body, burns, frostbite, exposure to electric current, hitting cars, etc.

The consequences of accidents can be very different: from microtraumas, which do not even cause temporary disability, to death. Accidents, depending on the circumstances, reasons, place and time of the incident, are divided into: accidents at work related to work; non-production accidents and domestic injuries.

These Rules apply to: employers; policyholders for compulsory insurance against industrial accidents and occupational diseases (hereinafter - the policyholders); insurers entrusted with compulsory insurance against accidents and occupational diseases (hereinafter - insurers); performing work on the basis of membership in organizations of any organizational and legal forms; heads and members of peasant (farming) households; students and pupils of educational institutions, including during their industrial practice (internship). The Rules for the investigation and registration of accidents apply regardless of the affiliation or non-affiliation of the victims with trade unions, however, the Rules reflect the powers of trade unions.
2. Methods
All industrial accidents that entail the need to transfer the employee to another job, temporary or permanent disability or his death are investigated and subject to accounting, if they occurred:

• during the working day on the territory of the organization or outside it (including established breaks), as well as when performing work in overtime, weekends and holidays;
• when going to the place of work or from work on the transport provided by the employer, or on personal transport in the presence of an agreement on its use for production purposes;
• when going to the place of business trip and back;
• when traveling in a vehicle as a shift driver during inter-shift rest (driver-shift driver);
• when working in the acts of the expeditionary method during inter-shift rest, as well as when on the ship in his free time from watch and ship work;
• when attracting an employee to participate in the elimination of the consequences of a catastrophe, accident and other emergencies.

Accident not related to production

Cases are not subject to registration if the investigation establishes the fact of suicide, natural death, trauma received by the victim while committing a crime, as well as accidents resulting from alcoholic, narcotic, toxic poisoning or the consequences of such poisoning (cardiac arrest, stroke, asphyxia), if they are not caused by the use of industrial alcohols, aromatic, narcotic and other similar substances in production processes, their improper use, transportation and storage.

Household injuries are considered to be cases that occurred in everyday life, at home. These include cases that happened to an employee who is at the enterprise during non-working hours in the absence of actions on his part in the interests of production, when transporting workers on the company's transport on a day off for rest, etc.

Procedure for investigation and recording of accidents (fig.1)

Figure 1. The share of young people in hazardous industrial enterprises

The purpose of the investigation of industrial accidents is to establish their causes in order to exclude the recurrence of such cases.

The victim or eyewitness must immediately inform the immediate supervisor of every industrial accident, who must:

• urgently organize first aid to the victim and his delivery to a medical institution;
• report the incident to the head of the unit (master, foreman);
• preserve, prior to the commencement of the commission's work, the situation at the workplace and the condition of the equipment as they were at the time of the accident, if this does not threaten the life and health of the surrounding workers and does not lead to an accident.
The heads of the department (foreman, foreman), where the accident occurred, are obliged to immediately inform the head of the enterprise, the trade union (authorized by the labor collective) about the incident.

Investigation of an industrial accident (except for group cases, with a fatal and serious outcome) is carried out by a commission consisting of an employer or a person authorized by him, a labor protection specialist of the given enterprise (insured), with the participation of an authorized representative of the trade union, as well as insurance companies, a lawyer and the victim if they so wish. If necessary, appropriate experts from third parties may be invited to participate in the investigation.

It is not allowed to participate in the investigation of an accident at work of the head, who is directly entrusted with the organization of work on labor protection and ensuring the safety of the victim.

The investigation of the accident must be carried out within a period of no more than three days. This period does not include the time required for conducting examinations, obtaining opinions from law enforcement agencies, healthcare organizations, etc.

When investigating an accident at work, an examination of the state of conditions and labor protection at the place of the accident is carried out. If necessary, photographs are taken of the scene of the accident, a damaged object, diagrams, sketches are drawn up, technical calculations and laboratory studies are carried out. The victims (if possible), witnesses, officials and other persons are interviewed; explanations are taken, the necessary documents are studied. The circumstances and causes of the accident are established, as well as the persons who have committed violations of legislative and regulatory legal acts. Measures are being developed to eliminate the causes of the accident and prevent such incidents.

The with the investigation materials is kept for 45 years by the employer, the insured, the organization where the accident is registered.

An accident that occurs at an enterprise with an employee sent by the employer to perform a task or to perform official duties to another employer is investigated by a commission created by the employer of the enterprise where the accident occurred, with the participation of a representative of the employer who sent the employee, and is taken into account by the employer, whose employee is the victim.

An accident that happened to an employee who was temporarily transferred by the employer to work with another employer or who performed part-time work is investigated and taken into account by the employer, for whom the victim worked on transfer or joint employment.

An accident that occurred with students of a general education school, vocational school, secondary specialized educational institution, university students who are undergoing internship or performing work under the guidance of the employer's staff is investigated by the employer together with a representative of the educational institution and is taken into account by the employer.

An accident that occurs with students of educational institutions, undergoing internship or performing work under the guidance of the staff of an educational institution on the site allocated by the employer for these purposes, is investigated by a representative of the educational institution together with a representative on behalf of the employer and is taken into account by the educational institution...

One of the copies of the approved act of form N-1 is sent to the place of permanent work, service or study of the victim.

Special investigation of severe cases in production. Subject to special investigation:

- accidents with a serious outcome;
- group accidents that occurred simultaneously with two or more persons, regardless of the severity of bodily injury;
- fatal accidents.

The employer must immediately notify the following about an accident with a serious outcome and a group accident:

- the territorial prosecutor's office at the place where the accident occurred;
• a superior organization, and in its absence - the local executive and administrative body where the employer (policyholder) is registered;
• the employer of the victim (in case of an accident with the employee of another employer);
• territorial body of state specialized supervision and control, if an accident occurred at an object under its supervision;
• the insurer.

If an accident occurred at an object supervised by the body of state specialized supervision and control, a special investigation is carried out by a representative of the body of state specialized supervision and control together with the state labor inspector with the participation of representatives of the organization, trade union, parent organization (local executive and administrative body), as well as the insurer and the patient at their request.

Based on the results of a special investigation, the state labor inspector draws up and signs an opinion on the accident (hereinafter - the conclusion). If an accident has occurred at an object supervised by a body of state specialized supervision and control, the conclusion is drawn up by a representative of this body and the state labor inspector.

In accordance with the conclusion, the organization, within one day, draws up acts for each victim and approves them.

Investigation and registration of occupational diseases

For each case of an acute occupational disease, the health care organization (polyclinic, health center) within 12 hours sends a notification of an acute occupational disease to the employer (insurer) at the place of work of the sick person, to the territorial center of hygiene and epidemiology in the prescribed form. In case of simultaneous occupational disease of two or more workers, a notification is drawn up for each sick person.

The healthcare organization immediately informs the employer, the insured and the territorial center for hygiene and epidemiology about each case:
• acute occupational disease with fatal outcome;
• simultaneous acute occupational disease of two or more employees;
• diseases with anthrax, brucellosis, tetanus, rabies and other especially dangerous infections when establishing a connection with the professional activity of the sick person.

The healthcare organization establishes the final diagnosis of a chronic occupational disease, draws up a medical report and, within 5 days, sends a corresponding notice to the territorial center of hygiene and epidemiology and to the employer, the insured at the place of work of the sick person (Fig.2)

![Figure 2](https://via.placeholder.com/150)

Figure 2. The share of injuries at enterprises (blue graph Russian Federation, red graph European Union)

A medical report on the presence of an occupational disease is sent to the healthcare organization that sent the patient. The employer (policyholder) immediately informs the health care organization
serving this employer, the local executive and administrative body, the trade union, the insurer about the case of an occupational disease.

Investigation of an occupational disease is carried out by a hygienist of the territorial center of hygiene and epidemiology with the participation of an authorized official of the employer, representatives of the healthcare organization serving the employer, the trade union, as well as the insurer and the victim (at their request).

The state labor inspector takes part in the investigation of occupational diseases of two or more people and occupational diseases with fatal outcomes.

Investigation of an acute occupational disease is carried out within 3 days, and of a chronic occupational disease - 14 days after receiving the notification.

During the investigation of an occupational disease:
- an examination of the workplace, site, workshop is carried out, the necessary laboratory and instrumental studies are done;
• explanations are taken, the sick (sick), witnesses, officials and other persons are interviewed;
• the provision of the sick (sick) with personal protective equipment, sanitary facilities is established;
• the causes of occupational disease are established; persons who have committed violations of acts of labor and labor protection legislation, technical normative legal acts;
• technical, organizational, sanitary and hygienic, treatment and prophylactic, medical and rehabilitation and other measures are being developed to eliminate the causes and consequences of an occupational disease.

3. Results
Mandatory medical examinations at the enterprise, in the organization are carried out in order to ensure labor safety and prevent occupational diseases of workers.

Distinguish between mandatory preliminary (upon admission to work) and periodic medical examinations of workers. Employees engaged in work with harmful or hazardous working conditions (including underground work), as well as those associated with the movement of transport, undergo mandatory preliminary procedures upon admission to work and periodic (persons under the age of 21 - annually) ditsinsky examinations to determine their suitability for the assigned work and the prevention of occupational diseases.

Medical examinations, depending on the goals they pursue, are divided into the following groups:
• medical examinations carried out in the interests of labor protection of the workers themselves employed in industries and professions indicated in special lists (hard work; work at power plants; minors);
• medical examinations, the purpose of which is to prevent danger both for the employee himself and for those around him at work, as well as for persons wishing to obtain a certificate for the right to drive vehicles;
• medical examinations, ensuring the interests of public hygiene and sanitation, as well as preventing various infectious diseases. Such examinations are carried out by workers employed in the food industry, children's and medical institutions, etc.;
• medical examinations, the purpose of which is to ascertain the physical fitness of the employee to perform certain professional duties.

The employer is not entitled to establish medical examinations that are not provided for by current legislation.

Mandatory preliminary and periodic medical examinations of workers at industrial enterprises are carried out by medical and preventive institutions serving these enterprises (polyclinic, outpatient clinic, medical unit). Categories of workers subject to medical examinations, the timing of examinations is established by a medical institution.
Medical examinations of minors upon admission to work are carried out on a mandatory basis and annually until they reach the age of 21. The doctor's recommendation is the basis for determining the nature of their future work.

The employer issues personal cards for all employees subject to mandatory medical examinations.

4. Discussion
After the examination, each employee is prescribed medical and health-improving measures: dispensary observation, referral to inpatient and sanatorium treatment, special meals, etc.

If necessary, they recommend a transfer to another job, give a referral to a medical and rehabilitation expert commission for transferring to a disability, etc. If workers find signs of an occupational disease, they are sent to the occupational department for a special examination and to establish a connection between the disease and professional activities. At the same time, appropriate treatment is carried out.

Individual protection
Workers and employees engaged in work with harmful working conditions, with special temperature conditions or with pollution, in accordance with the established norms. At work related to pollution, workers are given free soap according to the established norms. At work, where exposure to the skin of harmful substances is possible, washing and neutralizing agents are issued free of charge according to established standards.

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