## LABOR SAFETY AND PROTECTION OF WORKERS AT CHEMICAL PLANTS

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Chemical production belongs to industries, which are characterized by an increased potential risk of professional poisoning and illnesses of workers.

The reason is that in the production process, many workers are exposed to chemicals that have certain toxic properties.

Under the influence of toxic substances in the body may occur various violations in the form:

- acute poisoning (GO);

- chronic poisoning (HO).

In the chemical industry, conducting a number of technological and auxiliary operations is associated with the use of PPE. To perform work inside closed containers, in wells, etc. their use is crucial for ensuring labor safety.

PPE are: overalls, special footwear, hats, helmets, gloves, mittens, aprons, gas masks, respirators, safety glasses, masks, filters, silent equipment.

Emergency PPEs are formed in industries where there are toxic and fire hazardous and explosive substances. PPEs are placed in places accessible for use, which are determined by the heads of production and workshops in agreement with the gas supply and fire service.

Every year, each chemical industry enterprise compiles a list of overalls, special footwear and precautionary measures that should be given free of charge to workers and employees to ensure safe working conditions. The list indicates the number and types of remedies for individual, collective and emergency use. The list is agreed with the union committee and, after approval by the chief engineer, this list becomes the main document for the provision of PPE personnel.

Requirements for overalls:

- reliable protection of the human body from occupational hazards;
- ensuring normal body temperature regulation;

- comfort of clothes;

- the possibility of qualitative cleaning from pollution.

Overalls are property of the company and should be used only for their intended purpose. After work for the territory of the enterprise to make clothes is prohibited because of possible pollution of the environment and housing harmful substances production.

In all cases, when in the air of the working area the content of harmful substances exceeds the MPC or when the oxygen content is less than 17%, it is necessary to apply the PPE of the respiratory organs from poisoning and suffocation.

The means of respiratory protection are: masks for industrial filtering, filter respirators, hose gas masks. From mechanical injury to the head, as well as from electric shock, different helmets are used. There is a list of occupations, positions and works, in the performance of which workers and ITP must necessarily wear protective helmets. Hand protection is carried out in various types of gloves and gloves depending on the production environment: from thermal burns, from acid, from vibration. Where it is impossible to use gloves (work that requires the sensitivity of your fingers and when working with glues, paints) apply paste and ointment.

Eye protection is used to protect the eye glasses, shields and masks. Protective goggles are available in two types: protective goggles open - OCT, protective goggles closed - OZZ. All work involving the release of harmful vapor or gases must be carried out in the drain cabinets. It is prohibited to perform such work with faulty or disabled ventilation. It is strictly forbidden to store any reagents without labels with the names of substances. It is unacceptable to clutter corridors and passages in the laboratory, as well as approaches to fire extinguishing. It is forbidden to store and take food.

When working in the evening and at night, the laboratory should be at least two people, with one of them appointed by the elderly. Employees who embark on a new type of flammable or explosive work must receive a TB in advance from their supervisor.

Particular requirements are imposed on the storage of substances.

The total supply of flammable liquids simultaneously stored in each room must not exceed the one-day requirement. The main supply of these substances should be stored in special stores. It is unacceptable to store flammable liquids in plastic containers because of the danger of the occurrence and accumulation of static electricity charges and, consequently, the possibility of a fire. Strong poisonous substances (SOD) (arsenic and its compounds, hydrochloric acid and its salts, etc.) should be stored in a special closet or metal box under a seal and a lock. Tanks with poisonous substances should have clear and vivid labels on the letter "Poison!" and the name of the substance. Responsibility for the storage, accounting and expenditure of SDI relies on a person appointed by an order on the enterprise (institution, organization).

## References

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