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FIRE SAFETY AT THE ENTERPRISES

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The purpose of the article is to investigate the causes of fires at the enterprises and their consequences. The article provides a graph of the number of people died during the fires as well as the main causes of the fires at enterprises and their preventive measures classification.

Метою статті є дослідження причин пожеж на підприємствах та їх наслідки. Наводиться графік кількості загиблих під час пожеж. Також представлені основні причини пожеж на підприємствах та класифікація їх запобіжних заходів.

Fire safety is the state of the object, which eliminates the possibility of a fire, and in case of its occurrence, necessary measures are taken to eliminate the negative influence of dangerous factors of fire against people, structures, and material values. Fire safety can be provided by measures of fire prevention and active fire protection.

Fire safety is a very important part of human life. An analysis of the causes of fires in the 20 largest cities in the world (New York, Chicago, London, Hong Kong, Rome, etc.) has shown that the main causes of the fires are: smoking, electricity, cases in the kitchen and children's pranks.

Unfortunately, the statistics of fires in Ukraine are not very encouraging. Compared to the economically developed countries of the world, the figures for the number of fires and killed people are much higher. (Fig.1)

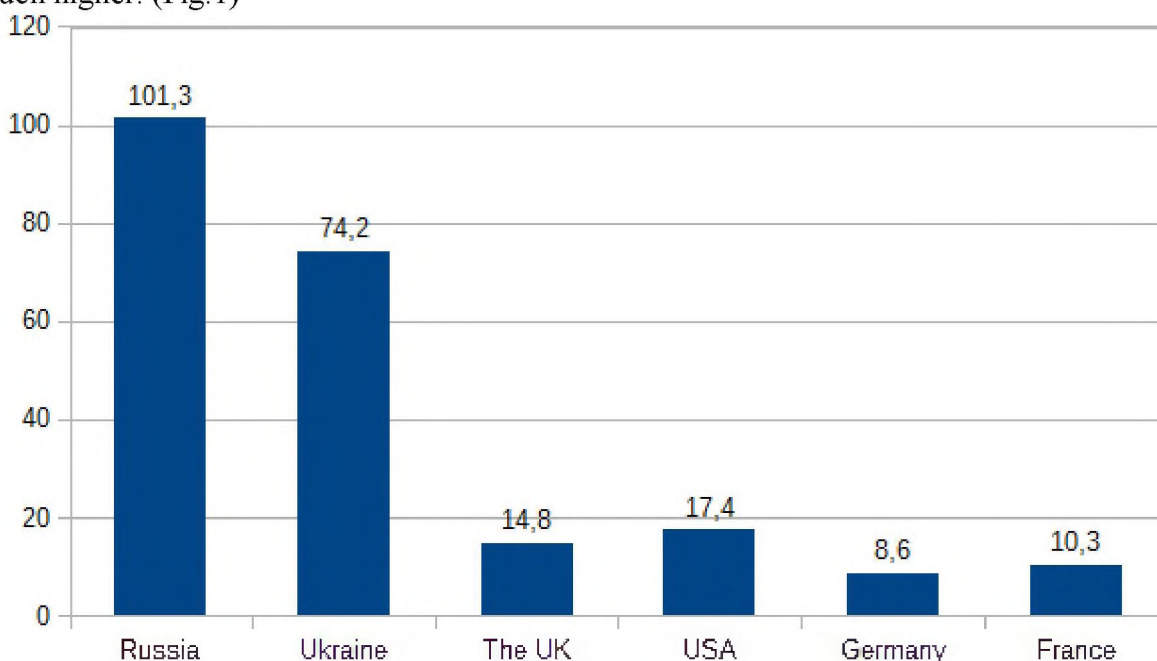


Fig.1. The number of people died during the fires of 1 million people

Fire safety at the enterprises is even more important, because there is a large number of people working there, and the lack of necessary fire-fighting equipment can create not only a threat to the people but also greatly affect the economy.

People use **fire prevention system** (a set of measures aimed at preventing a fire or reducing its consequences) to prevent fire accidents.

The main functions of the fire safety system are:

- Regulation and implementation of state measures in the field of fire safety.
- Creation of fire protection and organization of its activities.
- Development and implementation of fire safety measures.
- Realization of rights, responsibilities, and responsibilities in the field of fire safety.
- Conducting fire promotion and training of the population on fire safety measures.
- Promotion of voluntary fire brigades and fire protection associations.
- Involvement of the population in ensuring fire safety.
- Scientific and technical support of fire safety.
- Information security in the field of fire safety.
- Implementation of state fire supervision and other control functions related to the provision of fire safety.
- Production of fire-technical products, works, and services in the field of fire safety.
- Licensing of activities (works, services) in the field of fire safety and certification of products and services in the field of fire safety.
- Fire insurance.
- Establishment of tax breaks and other social and economic measures to promote fire safety.
- Fire extinguishing and associated emergency rescue operations.
- Accounting for fires and their consequences.
- Installation of a special fire prevention regime.

Enterprises are characterized by an increased level of fire danger, usually because of storage of explosive and fire dangerous substances on them, as well as due to the complexity of production processes.

The main causes of fires at enterprises:

- Violation of the technological regime - 33%.
- Electricity fault - 16%.
- Bad preparation for equipment repair - 13%.
- Self-ignition of oiled rags and other materials – 10%.

Also, the causes of fires may be a violation of the storage rules of fire hazard substances, combustible materials, careless handling of fire, etc.

In practice, you can see that an accident at least one important unit can lead to severe consequences. A similar example could be the Chernobyl catastrophe when an explosion on the fourth unit was accompanied by the release of radioactive substances into the atmosphere. In order to extinguish the great fire significant amount of power was used, which caused large economic problems in the country.

Measures for fire prevention are divided into **organizational, technical, regime and operational**.

- *Organizational* measures include the proper operation of buildings, machines and inland transport.
- *Technical* measures include observance of fire regulations and norms in the design of buildings, with the installation of electrical wiring and equipment, heating, ventilation, lighting, proper placement of equipment.
- *Regime* measures include the prohibition of smoking in unidentified places, the prohibition of welding and other fireworks in fire hazard places, etc.
- *Operational* measures include timely prevention, inspections, repairs and testing of process equipment.

Responsibility for fire safety measures in the performance of welding and other works with fire relies on the managers of works, sections, workshops and enterprises.

Conclusion. Fire safety is one of the most important components of the occupational safety. The fire safety in our country should be given more attention because it is the guarantor of the preservation of human lives, normal work of the enterprises and economic growth of the country.

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