FIRE SAFETY AS A COMPLICATED SOCIO-SYSTEM

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Abstract. Discussed issues of fire safety as a complex socio-system. The features of improvement and development of fire safety are highlighted.

Keywords: fire safety, socio-system, safety, security, process of life, environment.

Анотація. Розглянуто питання пожежної безпеки як складної соціосистеми. Виділено особливості вдосконалення та розвитку пожежної безпеки.

Ключові слова: пожежна безпека, соціосистема, безпека, захищеність, життєдіяльність, зовнішнє середовище.

Introduction. Ensuring security as a precondition for the existence of a human society or state is an important necessity for any economic system. Accordingly, the loss of security as an attributeleads to the death of such a system [1, p. 69]. Any interactions and relationships in the process of life of a person and society have a social aspect, and therefore the system of social relations and dependencies can be distinguished by a sign - sociality, which "is understood as a characteristic of the integrity of the social life of a person, which is permeated by interconnection and the interdependence of its life as a characteristic of certain social phenomena, manifestations of social life" [p. 48].

Analysis of the question. Fire safety characterizes the state of the protection of man, society, national wealth and the environment from fires, which, first, reflects the ability to withstand the destabilizing effects of various factors that create a real threat of fire, and secondly, is guaranteed by the mechanism of ensuring fire safety as a ' a real need to prevent real and potential fire hazards, reduce the probability of their occurrence and minimize 196 losses and losses from real fires. As a result of fires, on average, in 2000-2014, there were 56552 fires each year, direct material losses of which amounted to 444032 thousand UAH. As a result of fires, on average, 3380 people died each year, 1709 injured. During this period, in Ukraine, on average, 155 fires a day, with each fire inflicted direct losses amounting to 7.8 thousand UAH. Every day, as a result of the fires, on average killed nine and injured five people. In 2014, compared with 2000, the number of fires increased by 18.4%, and direct material damage from them - by 25.7 times. Positive dynamics during this period are characterized by losses related to the human factor: the number of deaths decreased by 29.8%, and the number of injured - by 5.12% [2]. The statistics of fires in Ukraine show that the fire danger in society has become a national problem.

Objective. In this context, fire safety is considered by us as a complex sociosystem. **Material and results**. Fire safety is a self-organizing system based on the public need for fire safety, and involves a complex interaction between people, teams, society, and the environment that interact with each other, and this interaction becomes ever more complex. It is worth emphasizing here that the very person, his needs, is not only the smallest part of the system, but is the most important part of it.

In conditions of scientific and technological progress, the level of complexity of the functioning of any system, including fire safety, increases. This manifestation is multivector. Firstly, the number of system elements increases. Secondly, already existing structural elements change qualitatively. Thirdly, there are more tight and longer links between the system elements, which not only complicates the interaction in the system, but makes this interaction more flexible and meaningful (for example, the interrelationships between the levels of fire safety, the formation of today the primary task of providing the fire the safety of an individual and his life as the most important value in society).

As a complex socio-system, fire safety is integral, characterized by orderliness in time between structural elements, as well as hierarchy. It is an open system: it constantly interacts with the external environment, without this interaction it will not exist.

Fire safety as a complex socio-system is constantly evolving and improved on the basis of constant interaction between objects of the system. In our opinion, this interaction has its own peculiarities.

First, the complication of interaction between the actors of the socio-system of fire safety is due, in our opinion, to the effect of the economic law of growing needs, according to which the change of the old and the emergence of new human needs (for example, the need for global fire safety). This ensures the evolution and improvement of the socio-system.

Secondly, given that the fire safety of a person is a determining factor in the complex socio-system of fire safety, in today's conditions the level of education and the realization of its intellectual potential is the basis for providing fire safety both at the nanoscale level, at the micro level, meso-level, macro level and at mega-level.

Thirdly, it is not possible to approach fire safety only from the technocratic approach: to focus only on protection against the fires of material values today does not correspond to the modern paradigm of human development.

Fourthly, fire safety today should be humanized. "The humanization of fire safety is a process of creating the corresponding humanitarian value concepts that aim to increase the level of protection of various categories of the population, as well as the environment and technosphere from fires by strengthening the institutional, educational and organizational factors of personal andcollective behavior. The humanistic approach also involves the observance of humanistic principles of prevention and tactics of extinguishing fires, which are aimed at minimizing material damage, death and injury to people " [3,p. 91-92].

Fifthly, as a socio-system, fire safety is impossible today without a high culture of safety of life, which is part of a culture of fire safety.

Conclusion. Today, this interaction becomes more dynamic and concrete, which is due to various factors that exacerbate the issue of fire safety in the modern world. Fire safety as a complex socio-system is constantly evolving and improved on the basis of constant interaction between objects of the system.

References

1. Molchanovsky V. Security – an attribute of the social system / V. Molchanovsky // Socio-political aspects of ensuring national security in modern conditions: Sat. articles. – M.: Border, 1995. – P. 68-74.

2. Gorban G.O. Socio-psychological models of social systems management / G.O. Gorban // Scientific Bulletin of Mykolaiv State University. V.O. Sukhomlinsky. Ser .: Psychological Sciences. – 2012. – Vol. 2. – Vyp. 9, pp. 48-53.

3. Zaretsky AD Fires – the global socio-economic problem of our time / AD. Zaretsky. – Krasnodar: KSEI Publishing House, 2011. – 242 p.