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СОВЕРШЕНСТВОВАНИЕ ТЕПЛОДЫМОКАМЕРЫ ДЛЯ ПОДГОТОВКИ ЛИЧНОГО СОСТАВА ГАЗОДЫМОЗАЩИТНОЙ СЛУЖБЫ МЧС РЕСПУБЛИКИ УЗБЕКИСТАН

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Аннотация: В статье рассматриваются особенности применения учебно-тренировочного комплекса (теп- лодымокамера) для подготовки личного состава газодымозащитной службы МЧС Республики Узбекистан. Проведение занятий по его использованию, позволило выявить положительные аспекты данного комплекса, а также имеющиеся недостатки в проведении занятий без дополнительного оборудования теплодымокамеры.

Ключевые слова: теплодымокамера (ТДК), средства индивидуальной защиты органов дыхания и зрения (СИЗОД), газодымозащитная служба (ГДЗС).

IMPROVEMENT OF THE HEAT AND SMOKE CHAMBER FOR PREPARATION OF PERSONNEL OF THE GAS AND SMOKE PROTECTION SERVICE OF THE MINISTRY OF EMERGENCIES OF THE REPUBLIC OF UZBEKISTAN.

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Annotation: The article discusses the features of using a training complex (heat and smoke chamber) for training personnel in the gas and smoke protection service of the Ministry of Emergency Situations of the Republic of Uzbekistan. Conducting classes on its

use made it possible to identify the positive aspects of this complex, as well as the existing shortcomings in conducting classes without additional heat and smoke chamber equipment.

Key words: *heat and smoke chamber (TDK), personal respiratory and vision protection equipment (RPPE), gas and smoke protection service (GSPS).*

INTRODUCTION

Improving different models of training in the gas and smoke protection service is one of the important forms of training for personnel of fire departments. When using a heat smoke chamber (TSC) in the annual training process of duty guards and fire extinguishing services, it will always be one of the first directions in the training of EMERCOM employees. If we compare old and recently improved ones according to all standards, TDC differs greatly in equipment, devices, and various load factors on gas and smoke protectors [1].

Every day, gas and smoke protection workers work in a complex and extreme process of specialization of their activities. Constant factors affecting the gas and smoke protector while in the VAT with the use of personal protective equipment for the respiratory and visual organs (at high - temperature loads and high humidity; lack of visibility of the premises; rapid and abrupt change of positions in the fire from one to another, etc. [2-4].

The heat and smoke chamber leads, in the process of special and general training of gas and smoke protectors, to the conditions of a real combat situation, which could be a real fire and emergency. A thermal smoke chamber (TDK) is a training complex that simulates a realistic fire situation and facilitates the training of fire control units. Thermal adaptation to elevated temperatures is carried out to create a training effect for both junior and middle management of fire departments [5].

The effective task of the fire protection unit becomes a factor influencing the performance of special work in case of fire, greatly reduces the spread of fires and losses from them, and ensures the safety of firefighters.

Operational efficiency is achieved:

- modern level of development of material and technical equipment;
- professional skills of gas and smoke protection workers;
- a high level of organization of operational-tactical actions of the fire department during a fire or emergency, realizing the capabilities of modern technology.

The need for the development of GSPS are:

- provision of GSPS units with all necessary equipment;
- in increased efficiency and improvement in non-standard GSPS in departments;
- in increasing the effect of the organization for extinguishing fires by the GSPS unit in the VAT using RPE;
- study of preparations using TC, TDK and GSPS bases. [6,7]

Purpose of the study. It is necessary to use the existing training complex (heat-smoke chamber) on the territory of the Ministry of Emergency Situations of the Republic of Uzbekistan to improve the units of the gas fire control system and control them during a fire.

To achieve this goal, the following tasks were set:

1) analyze the training complex and the heat and smoke chamber in the Ministry of Emergency Situations of the Republic of Uzbekistan and assess how they affect the training of employees;

2) find disadvantages or advantages in the operation of this TDK.

Results and discussion

The analysis of the heat and smoke chamber at the Ministry of Emergency Situations of the Republic of Uzbekistan allowed us to conclude that the training of employees is not carried out in full, since there are not enough different simulators for this training. Many fire departments do not have fire training departments and therefore everyone goes to the neighboring city for training. Traveling to a neighboring city requires a lot of time and effort of personnel, and also leads to losses and waste of the unit's budget funds for refueling special equipment and vehicles.

In our opinion, training in the heat and smoke chamber in the unit takes place as usual and without additional novelty, regardless of modern technologies.

We made a comparison with different heat and smoke chambers of different departments and identified many shortcomings in the design of the heat and smoke chamber and the training complex in general. They do not meet all the requirements that modern technology requires.

Conducting training in a smoke chamber is aimed at developing psychological readiness to act in extreme situations. The situations simulated during training are as close as possible to the real conditions of operational-tactical work, including elements of risk, prolonged maximum physical and emotional stress.

- A modern smoke chamber consists of:

- - labyrinth (orientation simulator), on two levels;
- - an area simulating the evacuation of people from elevator shafts;
- - smoke generator using safe smoke;
- - two-way communication systems;
- - video surveillance and tracking systems;
- - systems for creating sound and light effects;
- - supply and exhaust ventilation systems.
- - List of simulation tools and simulators:
 - - "victim" simulator;
 - - "fire source" simulator;
 - - "pipeline section" simulator;
 - - "reservoir" simulator;

-- "switch" simulator [8].

To prepare for practicing exercises on orientation, movement and behavior in extreme situations and dense smoke, the construction of a modern "Labyrinth" simulator is required.

In this simulator, gas and smoke protection workers are tasked with negotiating a complex labyrinth in conditions of smoke, limited visibility, and noise exposure. In the process of overcoming a projectile, personnel practice working skills in a smoky environment, and improve the ability to navigate in a complex unfamiliar environment that arises during movement in the presence of external effects of a fire (noise, smoke, light, etc.). The length of the route is 100 - 150 m. The number of different route options is 4.

Based on the results of the study, we identified the main shortcomings in the educational and training complex (thermal smoke chamber):

1) It is necessary to develop a project for the construction of a new building and complex for training GSPS employees;

2) Even though the old heat and smoke chamber prepares employees very well for professional activities, it is necessary to develop a new one with the Labyrinth simulator.

3) Adaptation to psychophysiological stress when rescuing people in an unbreathable environment using a heat and smoke chamber leads to positive dynamics in the preparation of a gas and smoke protector.

CONCLUSION

The most effective tool in the process of training firefighters will be a heat and smoke chamber, but often modern equipment is not available in each division of the special State Fire Service or is located in other neighboring departments of the Ministry of Emergency Situations of the Republic of Uzbekistan. Thus, if we look at the problem more broadly, it is necessary to improve heat and smoke chambers and develop and improve training methods for gas and smoke protectors and fire extinguishing managers in the VAT.

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