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# Safety Requirements for Use of Hydromelioration System

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**Abstract:** Uzbekistan has adopted a law on "Safety of hydraulic structures." It provides data on the purpose of the law, definitions, cadastre, management monitoring and responsibilities. The purpose of this law is to prevent, reduce and protect people from risks in the design, construction, commissioning, operation, maintenance and restoration of hydraulic structures. The article describes the measures for the operation of the irrigation system.

**Keywords:** irrigation system, equipment, fire safety, irrigation, safety, object

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**Introduction:** At present, measures are being taken in the country to rationally use water resources and increase the water supply of irrigated lands.

**Problem statement:** The Action Strategy of the Republic of Uzbekistan for 2017-2021 sets the task "Further improvement of the reclamation of irrigated lands, development of reclamation and irrigation networks, introduction of intensive methods of agricultural production, first of all, introduction of modern water and resource-saving agro-technologies and high-efficiency agricultural machinery." given. In this regard, one of the important tasks is to increase water supply using groundwater.

**Presentation style:** Statistical, analytical methods were used in the research. Experiments were performed in the laboratory. Safety of work processes in the operation of the reclamation system is achieved in the following ways: [1]

1. Application of advanced production technology and advanced maintenance methods;
2. Rational placement of equipment;
3. Professional selection and training of employees, the use of protective equipment;
4. Inclusion of safety requirements in technological documentation and control of safety requirements;

The safety of machine structures during testing in accordance with the State Standard GOST 12.2002-81 is determined by the following methods:

- completeness of the protection cabin and the strength of the frame.
  - Safety of getting in and out of the workplace, inspection of equipment, correction of technical and technological deficiencies, working condition of the machine and the safety of road and road structures.
  - The ease and safety of driving during the dark hours of the day is determined.
  - Electrical and fire safety are determined;
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- The presence of alarm systems and fire engines of the main engines is detected;
- Availability of means to ensure the safety of the moving parts of the machine operating under pressure and in the high generator;
- Breaking down and going to dangerous places;
- Types of hazards; [2]

It was found that the types of work performed in the reclamation system alone are more than 100, and the number of machines used is about 50. About 70% of accidents are caused by machinery.

**Results.** Uzbekistan has adopted a law on "Safety of hydraulic structures" (August 20, 1999). It provides information on the purpose of the law, definitions, cadastre, management monitoring and responsibilities. The purpose of this law is to prevent, reduce and protect people from risks in the design, construction, commissioning, operation, maintenance and restoration of hydraulic structures. The average annual number of fires in the regions is 419, in agriculture - 165. In agriculture, the average probability of a fire in the provinces is 20. [3]

As a result of the research, recommendations on life safety in the repair of hydro-meliorative systems were considered. Moreover, the results show that work losses are identified in the hazards associated with the types of work carried out in the reclamation systems. In addition, safety requirements and regulations will be established for common types of work.

In order to ensure the safety of the work carried out in the reclamation system, it is necessary to provide protection from adverse environmental factors, Shanghai Cooperation Organization and recreation areas, as the main work is carried out in the open air.

As the risks depend on the type of work mechanisms, instructions should be developed for each type of work. The preparation of safety rules and requirements, including the types of work in the system, should reward those who have done well.

Comprehensive in-depth analysis of the causes of fires in the system facilities to determine the sequence of causes and consequences, timely conduct of fire control, provision of firefighting equipment, strengthening fire safety. [4]

There are more than 200,000 km of service roads used in the reclamation system. They move employees, service machine mechanisms, repair machines and mechanisms of executive organizations. Most of service roads do not have hard pavement. They are not fully equipped with special road signs. There is a lack of barrier structures and equipment. Therefore, the level of hazards on service routes remains high. Taking into account the conditions, employees, workers, technical managers should know the rules of the road. The presence of an observer should be ensured when moving heavy machinery. Many canal and ditch dams have depth sections of 3 m or more relative to their bottom or surface of the reserve. This is why they need to be very careful when moving. Workers in the field need to know how to move in a drowning situation and help drowning people.

## **Conclusion**

The point of research, recommendations on life safety in the repair of hydro-ameliorative systems were considered. To sum up, work losses are identified in the hazards associated with the types of work carried out in the reclamation systems. In addition, safety requirements and regulations will be established for common types of work.

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