

LOADS AND EFFECTS AFFECTING HYDROTECHNICAL CONSTRUCTION

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Annotation

This article provides information on the technical indicators of the 4K channel, which is located in the guard farm District of the Bukhara region. A study of the technical condition of the channel revealed deficiencies and provided a summary and suggestions for eliminating existing deficiencies and improving the technical condition.

Keywords. Channel, concrete coating, filtration immersion.

Calculations of strength and priority of hydrotechnical structures are carried out according to two sums of loads and effects affecting it: basic and extremely important. Permanent, long-term and short-term temporary loads affecting the structure during its use constitute the main cumulative loads and effects, while critical cumulative loads and effects are those that affect the structure in rare cases of emergency. and consists of loads that will have very large values, and these loads can be permanent, temporary, special short-term and special.

Major cumulative loadings and impacts include:

- 1) the weight of the building in its state, taking into account the weight of its technological devices (barriers, lifting mechanisms, etc.);
- 2) hydrostatic pressure W_1 of water at the standard moisture level (MDS) from the upper side;
- 3) hydrostatic pressure W_2 given by the lower water level when there is a minimum water level and MDS during the transfer of the maximum water consumption;
- 4) counter pressure $W_{q.b} = W_f + W_{tt}$, where W_f and W_{tt} are filtering and evenly distributed pressure;

5) weight of soil, weight of soil moving together with the dam, additional load of anchor and lateral pressure of soil from the upper and lower bef.

These notes include permanent loads and impacts.

Temporary long-term loading and effects include:

- 1) the pressure of turbidity and discharge accumulated in front of the dam;
- 2) temperature effect (only for concrete dams).

Short-term burdens and effects include:

- 1) ice pressure W_m with an average multi-year layer;
 - 2) wave pressure W_t at average multi-year wind speed;
 - 3) loads generated during the movement of lifting, loading and transporting devices W_q ;
 - 4) load given by floating objects $W_{s.yu}$;
 - 5) Dynamic loads generated during the transfer of flood waters in the MDS are W_d .
- Hydroelectric dams and reservoirs created with their help are usually complex, that is, designed to meet the needs of irrigation, water supply, fisheries, energy, water, road and railway transport.

Depending on the type of hydroelectric dam, its composition may consist of water dampening, water discharge, water transfer, energy, water intake, ship transfer, wood discharge, fish transfer and fish protection structures.

- Hydrogels are non-pressurized and pressurized.
- Examples of non-pressurized hydroelectric systems are ports built on rivers, water intake structures without dams.
- Pressure hydrocells: divided into low pressure ($H < 10$ m), medium pressure ($H = 10 \dots 50$ m) and high pressure ($H > 50$ m) types.

It is not possible to build large-capacity water reservoirs on plains or mountain rivers, regardless of the ground of low-pressure hydroelectric systems, but it is possible to improve the conditions of water intake for ship traffic, logging, economic needs, and electricity generation. It is established in the places where there is a need to cover the electricity loads in the supply system at peak times.

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