

The processing results of the vibration records from the dams and coastal slopes of the Charvak and Andijan water reservoirs of Uzbekistan during the weak earthquakes

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Abstract The article discusses the processing results of the vibration records from the dams and coastal slopes of the Charvak and Andijan water reservoirs of Uzbekistan during the weak earthquakes. It is shown, that the seismic monitoring systems were upgraded at the investigated objects. Analyzing seismic estimates, revealed, that the construction of the Charvak reservoir dam has a non-linear behavior, and it is manifested in the differences of the frequency range and transmission coefficient of the dam elements. According to the analysis of seismic data, obtained during the registration of weak earthquakes at the several measuring points of dams and coastal slopes of the Charvak and Andijan reservoirs, the vibration frequencies and the ratio of the vibration velocity amplitudes to the vibration velocity amplitudes of the reference station are varies greatly depending on the azimuth to the epicenter.

Keywords Seismic vibrations, spectrum, dam, speed, amplification, reservoir, exploitation, seismicity, energy.

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