

INDUCED SEISMICITY AT THE EAST KAZAKHSTAN REGION BY DATA OF KAZAKHSTAN MONITORING NETWORK

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Starting from 1994, the Institute of Geophysical Research NNC RK conducts continuous seismic monitoring of different nature events occurring on the territory of Kazakhstan. In recent years, the investigations are focused on the study of seismic regime of the East Kazakhstan region and west Altay. The interest is stipulated, first of all, by the availability of active research nuclear reactors, infrastructure of the former nuclear Semipalatinsk Test Site, low-enriched uranium Bank, tailing dams, production enterprises and other. Thus, the assessment of seismic hazard of the region is a topical task. The investigation of the seismic mode of the East Kazakhstan revealed a range of earthquakes related to the places of active induced effect, such as hard mineral deposits, Semipalatinsk Test Site.

The work shows information on the induced seismicity near the largest deposits of coal, gold, and the STS. The macroseismic exhibitions of the largest induced earthquakes were considered, the comparative analysis of the waveforms of different nature events was conducted, the hypothesis on the most probable reasons of induced seismicity are described. The necessity of more dense monitoring network in the East Kazakhstan and early warning system deployment at the regions of the research nuclear reactors installation is shown.