

## **SOME MODELS OF GEOLOGICAL ENVIRONMENT FOR ASSESSMENT OF ACCEPTABLE RISK DURING NATURAL AND NATURAL-MAN-MADE HAZARDS**

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The geological environment of urbanized areas is an active developing and changeable natural object having specific conditions that are responsible for an origin of violating the vital activity safety. Some quantity scenario of geological environment behavior and character of accumulation of alteration can be obtained for earthquake prone areas. There are the long-term stability, unstable equilibrium, long-term and short-term vitality, instability, avalanched -like insuperable process of failure, each determined by fixed combination between the geological environment conditions and level of technogenic loads. The geological environment conditions and construction loads are interaction elements in earthquake prone areas. The behavior of geological environment can be predicted by calculated not only itself conditions but the construction loads also. The state of vitality is the greatest practical utility, because there is the most abundant and the most dangerous geological environment conditions in urbanized prone areas. The state of vitality gives to us the answer on the question about the level of acceptable risk for natural or natural-man-made disaster. Preservation of the vital activity safety and operational availability of the geological environment and construction on it is impossible. Consequently, the high point must be taken as the level of acceptable risk for the geological environment under loads. Some models of the geological environment behaviour from different levels of load are considered in the paper.