

*Materials of Conferences***DEVELOPMENT OF THE CONCEPT  
OF THE GEOLOGICAL SAFETY  
OF PERM CITY**

Kopylov I.S.

*Natural-science institute of the Perm state national  
research university, Perm, e-mail: georif@yandex.ru*

Perm is the largest industrial city of the Western Urals, with an area of 809 km<sup>2</sup>. The Concept of geological safety of the City was developed in the Perm state university. The main goal of the Concept – formation of the system of geological safety in the complex development of the city, creation of a scientific system of the forecast geological hazards reduction of geological and other risks, the rational use of underground space, the decision of questions of ecology and geological safety, increase the level of protection of the population and engineering of the objects of various levels of responsibility the territory of geological hazards, creation of geologically safe environment for present and future generations of people. A set of base maps on the territory of Perm scale of 1:100 000: map of the actual material, the geological map with the main tectonic elements, map of quaternary deposits, geomorphology map, map of exogenous geological processes, map of tectonic fractures and geodynamic active zones [1–4]. A Program of geological study and mapping of the territory of the city for the period of 20 years with the program activities of theoretical, methodological, GIS, mapping and organizational bases of system of geological safety of Perm city.

The main tasks of the program:

1. Theoretical and organizational basis for creation of the system of geological safety: theoreti-

cal, legal and methodological support; cartographic support and creation of condition cartographic principles of geological environment; GIS software, creation and management of databases; examination and estimation of geological and natural-technogenic conditions and factors.

2. Large-scale complex engineering-geological and ecological mapping and research: large-scale engineering-geological and ecological mapping and research of scale of 50 000; large-scale engineering-geological and ecological mapping and studies of scale 25 000; large-scale complex engineering-geological and ecological mapping and studies of scale 10 000.

3. Monitoring of the state of subsurface area: organization of system of monitoring of the state of subsurface area sub – city level; monitoring within the existing industrial zones and sites of urban development (territorial and object level).

**References**

1. Kopylov I.S. Conceptual principles of the ensuring system the geological safety of the large cities // *European Journal of Natural History*. – 2012. – № 6. – С. 46.
2. Kopylov I.S. Geological-ecological problems of the large cities and the concept of the geological safety // *European Journal of Natural History*. – 2012. – № 6. – С. 46–47.
3. Kopylov I.S. Major geoeological problems of Perm region // *European Journal of Natural History*. – 2013. – № 2. – С. 66.
4. Likutov E.Yu., Kopylov I.S. Complex of methods for studying and estimation of geodynamic activity // *Tyumen State University Herald*. – 2013. – № 4. – С. 101–106.

---

The work is submitted to the International Scientific Conference «Ecology and environmental management», Israel (Tel Aviv), February, 20–27, 2014, came to the editorial office on 03.02.2014.