Materials of Conferences

A RETROSPECTIVE ANALYSIS OF THE GEOCHEMICAL COMPOUND OF BOTTOM SEDIMENTS (FOR EXAMPLE, THE POOL R. PAHRA)

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Unique marker for environmental situation are bottom sediments, in other words they can be called «information medium» dynamics of pollutants, which requires the need for monitoring and analysis of changes of compound according with the target of ecological geochemistry [2]. Retrospective of compound of bottom sediments registers the vector of anthropogenic pressure within the studied systems. Analysis of the changes done by the example of basin Pakhra for identification the results of relationship between an anthropogenic impact and dynamics of compound of bottom sediments in 20 years.

The basin is suffer a pressure from various man-made objects, and therefore it is interest to the complex geo-ecological researches.

A retrospective analysis was based on data from the chemical compound of sediments in 1984 [4] and 2005 [1].

Comparative analysis of the content of heavy metals in the sediments indicated that for 20 years there was a noticeable decline in parameter of overall pollution and indicators of health and toxicological hazards in the sediments of rivers basin. Pakhra [1, 4]. During this time under the course of the restructuring and the crisis of 1998 much has changed in the industrial basis of the city. A decline of industrial development observed and many businesses were closed. If we analyze the compound of geochemical associations, we may be noted that an abruptly change in the parameters of man-made pollution is associated with widespread sharp drop of mercury and silver in sediments, which is directly associated with a strong decline in the demand of these heavy metals in many areas of industry and agriculture [3]. Also decrease the parameter of overall pollution and the number of chemical elements in the geochemical association fixed decline in functioning of the pig farm «Kuznetsov», the close of the landfill Shcherbinskya.

Relative to the forecast can be said that the basin of river Pakhra will again be under the influence of discharges reviving and expanding Company «Kuznetsovsky plant». Substantial burden on the degree of pollution of the river environment will widespread transition of people to mercury containing lamps lighting and load increase from the growing volume of transport on the environment.

References

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