

**THE IMPACT OF TRANSSHIPMENT FREIGHTS AND DREDGING AT  
THE KERCH SEA TRADING PORT ON POLLUTION ITS OWN WATER AREA  
BY COMPOUNDS OF HEAVY METALS AND OIL PRODUCTS**

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Onshore facilities have a greatest burden on the environment in ports production. Along with the influence of the port, there are other sources of water pollution. Therefore, to determine the impact of port activities on the environment requires a set of objective assessments of the impact. Evaluation of this kind should serve as a basis for planning the development of ports, improving their infrastructure. In the Kerch region development of environmental impact assessments increase marine transport and logistics are particularly relevant.

This work is made based on the monitoring of pollution Kerch Sea Trading Port (KSTP), conducted in 1994-2006, respectively, and data on the number of overloaded in port cargo volume and dredging in the harbor basin and the approach channel. From the materials have been selected for monitoring information about the content of heavy metals (mercury, copper, iron, lead, cadmium, zinc, manganese), as well as arsenic, chromium,

and mineral oil (non-volatile hydrocarbons, tar components) in the water surface and bottom, as well as the top layer of sediment.

According to the data port in it for the year be transferred to 1000 thousand tones of coke and coal, up to 120 thousand tones of ferroalloys, up to 500 thousand tons of grain cargoes. The main impact on the environment is reloading processes of dusty cargoes. This category of goods are coke and coal, as well as scrap metal, legumes, grains and seeds.

Sources of harmful effects on the environment when reloading processes are also the emissions of power plants ships moored at the pier.

Dredging volumes after 80 years of the last century in the Kerch Bay declined in subsequent years have stabilized in the range of 50-250 thousands m<sup>3</sup>/year. Much of sludges in dredging process can proceed in an aqueous medium in the form of suspended matter and other deposit on the bottom sections. Therefore, dredging becomes a factor in pollution Kerch Bay significant group of pollutants, including heavy metals and oil products. These substances belong to the group of chemical contaminants, the most persistent and far-spreading. Environmental effects of marine pollution are expressed primarily in the accumulation of chemical toxicants in marine organisms, reducing the biological productivity of waters.

The results of correlation analysis of long-term changes in the studied parameters revealed that the growth of turnover KSCP causes an increase in pollution of its waters in the first place, mercury, copper and non-volatile hydrocarbons, which constantly comes from being in the port of ships.

Dredging in the port opening occurring in sediments contaminated soil, which leads to secondary contamination of bottom water iron, manganese and heavy fractions of petroleum products.

The results obtained can be used in the development plans of the Kerch Sea Trading Port.

**Keywords:** Kerch Sea Trading Port, heavy metals, oil products, pollution

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