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# **The Mechanism of Adsorptive Purification of Industrial Waste Water from Phenols (the Example of Aktobe Oil Refining LLP)**

**L. A. Nikolaeva, N. E. Aikenova**

*Kazan State Energy University, Kazan, Russia*

**Keywords:** adsorption; granular sorption material; carbonate sludge; adsorption mechanism; oil refining enterprises; wastewater; phenols.

**Abstract:** The mechanism of adsorptive purification of oil refining wastewater from phenols by modified carbonate sludge of chemical water treatment (CWT) has been studied. Phenols in wastewater are extremely toxic substances. In the legislative order, the sanitary and hygienic standards set the maximum permissible concentration (MPC) of phenol in water, which is 0.001 mg/dm<sup>3</sup>. A process scheme of adsorption purification of wastewater from phenols with modified carbonate sludge, which is a large-tonnage waste from the power industry, is proposed. An adsorption filter has been designed for effective additional cleaning at Aktobe Oil Refining LLP.

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