ISSUES RELATED TO SECOND REPROCESSING OF URANIUM INDUSTRY WASTES.

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On the basis of carried out investigation and certification of all uranium tailing dumps of Soghd oblast, it was determined that the most perspective uranium tailing dumps for second reprocessing are Taboshat and Chkalovsk.

Engineer and geological condition and radionuclide concentration in radioactive wastes of above mentioned uranium tailing dumps are investigated. It was determined that the considered wastes are low-active and it is easy to make their second reprocessing with the purpose of uranium-oxide concentration obtaining.

It was determined that it is possible to reprocess the wastes with uranium concentration from 0,01% to 0,1% omitting the processes of fragmentation, disintegration, thickening, classification, sorption and desorption. Uranium yield by this reprocessing goes up to 90%. The optimum parameters of uranium-oxide concentration extraction from wastes of uranium industry are revealed.

Schematic technological diagram of uranium wastes reprocessing of Chkalovsk and Taboshar tailing dumps is developed which consists from the following stages: sand repulping, leaching, neutralization, and pre-leaching "meagre" sands, filtration, cake removal, uranium sedimentation from ammonia solution, filtration and diuranate. Due to availability of ferric nitrates and sulphates in old spoil piles there is no necessity in oxidant utilization.