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Possibility of Uranium industry wastes reprocessing in Tajikistan

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Total amount of wastes in tailings of former uranium industry in Republic of Tajikistan is approximately 55 million tons. Summary activity of wastes according to different assessments is from 6.5 till 7.7 thousands Curie. Dump fields basically are not arranged, their amount and area are not exactly determined. Practically all tailings and dump fields are subject to erosion processes and drained by underground waters to adjoining creeks and river network.

The surface of tailings, especially those which doesn't have protective coverage or subject to destructive effect of natural factors or digging animals are presenting threat for considerable dispersion of contaminated substances and residues of tailings beyond of their initial localization.

Uranium ores reprocessing methods are known which allows extracting of uranium oxide from barren ores. However, these methods require preliminary preparation of the ore, grinding and in addition are contaminating the environment.

We propose the diagram of uranium ores reprocessing with the purpose of raw material base extension, production of uranium oxide from uranium industry wastes with uranium content from 0,03 up to 0,3 mass per cent. Final product is uranium oxide containing 75% of U_3O_8 . Product output is from 90 to 99 per cent.

Country or International Organization

Tajikistan

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