
ASSESSING THE EFFICIENCY OF A “BURIED WALL” BARRIER IN THE ESTABLISHMENT OF NEAR-SURFACE LONG-TERM STORAGE AND DISPOSAL FACILITIES FOR RW

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The article evaluates the impact of a “buried wall” barrier on the long-term safety during the long-term storage¹ or in-situ disposal of nuclear legacy facilities, in particular, industrial reservoirs, as well as during the development of near-surface disposal facilities for radioactive waste (RWDF). For assessment purposes, filtration and mass transfer processes have been numerically modelled in the GeRa code based on a case study of a reference near-surface facility. The study explores in which way the available covering screen affects the dynamics of contaminant spread. It evaluates the sensitivity of the results to the dispersion parameter commonly characterized by a high degree of uncertainty.

Keywords: radioactive waste, engineered safety barriers, buried wall, dispersibility, GeRa code, contaminant spread, geofiltration, geomigration, pulp storage facility.

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¹Term referred to as conservation in Russian literature

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