
PROCESSES AFFECTING THE RELEASE AND MOBILISATION OF DEPLETED URANIUM IN THE ENVIRONMENT

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In this presentation I will discuss the processes affecting the release and mobility of depleted uranium from the penetrators. This will be done in the light of the observations from the UNEP mission, together with the large experience accumulated on the study of uranium mobility in natural systems. Specifically I will discuss the processes affecting the oxidative alteration of the metallic uranium penetrators, the influence of environmental conditions on the release of uranium from the metallic parts and the geochemical processes that affect the retardation and mobility of uranium in groundwaters and soils.

This will be done by using the ample amount of information accumulated in the study of the alteration of uranium ore deposits like Cigar Lake (Canada), Pocos de Caldas (Brazil), El Berrocal (Spain) and Oklo (Gabon).

By discussing and quantifying the main processes affecting the mobility and retardation of uranium in this environments we should be able to assess the actual risk to the population and the measures to prevent the spread of uranium in the environment.

Key words: depleted uranium, environment, release, uranium mobility, process affecting,