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# Development of FEPS and Scenario for the Safety Assessment of LLW Disposal Facility in Pakistan

In Pakistan, most of the radioactive waste generated from nuclear power plants, research reactors and application of radioisotopes is low level radioactive waste. This radioactive waste needs proper storage and disposal at safe and secure purpose-built sites to protect human health and the environment. Accordingly, Pakistan is working on the establishment of a near surface disposal facility (NSDF) for permanent disposal of low-level radioactive waste. Features, Events and Processes (FEPs) have the key importance in evaluating the safety assessment (SA) of a disposal facility. Keeping in view of the waste form and type of the disposal facility, the FEPs are identified, screened out and from selected FEPs rock engineering system (RES) matrix is formed to develop a scenario which will be used in the SA of a NSDF. This paper presents the overall process of development of FEPs and scenario for the SA of NSDF.

Key Words: NSDF, FEPs, RES, Scenario, SA

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