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Abstract

The radiological safety aspects of a enriched uranium based subcritical assembly coupled to a neutron generating 650 MeV, 1mA proton accelerator is discussed. In the system, proton induced spallation neutrons generated in LBE will drive the sub critical system and is expected to generate 30 MW power. The radiological safety aspects of the system such as the bulk shielding of the accelerator, residual nuclei production in LBE and the dose rate due to the induced activity after shutdown are estimated and discussed.