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IDENTIFICATION OF IMPORTANT FISSION PRODUCT NUCLIDES FROM SPENT FUEL OF PEBBLE BED HTGR AT MAXIMUM BURN-UP

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As Indonesia is planning to build an experimental power reactor of pebble bed HTGR type, it is important to determine the content of important fission product nuclides of its spent fuel. Identification the amount and type of the FPs is the first step toward the implementation of safeguards policy, management of the spent fuel and addressing the source term strength in case of an accident. The calculation was done using Monte Carlo method MCNP6 Code. It is intended to calculate the amount of nuclides that are important to safeguards, such as the remaining U-235 and the produced Pu-239; the amount of long-live minor actinides that are subject to spent fuel management; the amount of fission products that are important in addressing radioactive release in case of an accident.

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Country or International Organization

Indonesia

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