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## LWR FUEL CYCLE WITH REDUCED HLW PRODUCTION

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Advanced fuel cycle of light water reactor VVER-440 (Russian design) with inert matrix fuel is described. Cycle is based on combined fuel assemblies containing standard uranium pins and transmutation pins with transuranium elements from spent fuel in inert matrix. This cycle is compared with standard open fuel cycle based on radially profiled assemblies and with standard closed fuel cycle containing MOX fuel assemblies. Numerical analysis is based on spectral code HELIOS. Cycle performance indicators covering waste stream parameters and risk connected with spent fuel are evaluated.