In accordance with global practice and a number of existing regulations, the use of conservative approach is required for the calculations related to nuclear safety assessment of NPP. It implies the need to consider the determination of neutron fluence errors that is rather complicated. It is proposed to carry out the consideration by the way of multiplying the neutron fluences obtained with transport calculations by safety factors. The safety factor values are calculated by the developed technique based on the theory of errors, features of the neutron transport calculation code and the results obtained with the code. It is shown that the safety factor value is equal 1.18 with the confidence level of not less than 0.95 for the majority of VVER-1000 reactor places where neutron fluences are determined by MCPV code, and its maximum value is 1.25.

Keywords: safety factor, neutron fluence, nuclear reactor, VVER-1000, neutron transport calculation.