

# THE USE OF MONTE CARLO CODE FOR RADIATION TRANSPORT AND DOSIMETRY CALCULATION FOR NEUTRON RADIOGRAPHY EXPOSURE ROOM FACILITY AT REACTOR TRIGA MARK II PUSPATI (RTP)

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A Monte Carlo simulation of photon and neutron flux at the neutron radiography exposure room (NuR II) with various shielding material and with different sizes of beam port at Agensi Nuklear Malaysia was performed using the MCNP5 computer program. The objective of the work is to model the NuR II beam port with different sizes of holes and various materials to obtain radiation transport and dosimetry calculation result. The code was used to calculate of photon and neutron flux and dose distributions using the KCODE card. This paper describes the use of the Monte Carlo Code to generate a radiation transport and dosimetry calculation for the actual configuration and discusses the potential of applying the method to more complex radiation protection problems. The simulated results using the variance reduction technique were very good agreement with the measured data.

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