



Contribution ID: 230

Type: **Poster Presentation**

The Effects Of High Atomic Material On Photon Beams At The Interface

Thursday, 14 July 2011 17:00 (2 hours)

The purpose of this work was to study the dose enhancement factor (DEF) by high-Z material in water phantom, irradiated by photon beams. Two energies, 6 and 15 MeV generated by Varian linear accelerator were used. Monte Carlo technique (EGSnrc code) was used in this study. The source model was validated against measured data. The effect of photon beam quality, atomic number (Z) and the material thickness in the water phantom were studied. Calculations for a variety of materials and photon beams showed that dose enhancement factor increase with Z; decrease with decreasing material thickness; and decrease with decreasing incident photon beam energy.

**Level (Hons, MSc,
 PhD, other)?**

other

**Consider for a student
 award (Yes / No)?**

no

**Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?**

yes

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Session Classification: Poster2

Track Classification: Track F - Applied and Industrial Physics