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TISSUE COMPENSATORS IN RADIOTHERAPY TREATMENT

A PROJECT REPORT PRESENTED BY
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to the Board of study in Physics of the
POSTGRADUATE INSTITUTE OF SCIENCE

*in partial fulfillment of the requirement
for the award of the degree of*

MASTER OF SCIENCE IN MEDICAL PHYSICS

of the

UNIVERSITY OF PERADENIYA

SRILANKA

2009

ABSTRACT

Uncertainties arise in dose calculations involving retracted tissue compensators due to the effects of the compensator upon the scatter component of the dose. Many commercial treatment-planning systems cannot allow directly for the presence of a compensator in isodose calculation. We present data to test calculation accuracy for a wax compensation system by comparing retraction factors measured along central-axis ray-lines for different sizes of tissue compensator thicknesses. The maximum and minimum dose variations due to missing tissue compensator are estimated. It was found that, these dose variations depend on depth, field size and energy of the photon beam. The experimental method is shown to give good agreement with semi theoretical and experimental method.