

**ABSTRACT**

This project is based on studies of radiation doses received by radiation workers from sample of radiation facilities in Nairobi, Kenya, using TLD badges. Radiation doses received by workers during performance of a few types of radiological exposures and application of sealed and unsealed radionuclides have been measured at a number of x – ray departments (diagnostic radiology), radiotherapy and nuclear medicine and training and research. Radiation dose measurements were based on thermoluminescence dosimetry (TLD) techniques, using the laboratory facilities of the National Radiation Protection Laboratory (NRPL) at KNH, in Nairobi, Kenya. Evaluation of doses from TLD badges exposed to x – rays and radioisotopes are discussed.

Nuclear medicine recorded the highest dose as compared to Radiotherapy, Training and research and Diagnostic radiology. Age and gender have no relation with dose absorption. Yearly average dose seems to have been reducing from 2002 to 2005, representing an improvement in radiation protection. Overall, the results show that radiation workers in Kenya are working under safe environments since the doses received are within acceptable limits of radiation protection. The data presented in this research provides a database, which should serve as a useful reference for comparison with similar studies in the future.