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DOSIMETRIC MEASUREMENTS' DUE TO SOME NATURAL AND MAN MADE NUCLIDES

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SUMMARY

SUMMARY

The present study is dealing in details with the radiation induced hazards on the human being due to internal whole body exposure . This has been attained through the assessment of the body burden activity radionuclides in human being subjects from the released ^{137}Cs fallout and the naturally occurring ^{40}K using the whole body scanning facilities. In this study, many subjects were selected as examples for the Nuclear Research Center radiation users in addition to some examples of non radiation users for whole body counting. Whole body scanning of subjects were performed periodically. The body burden activity level of ^{137}Cs and ^{40}K in addition to the whole body internal exposure were predicted. The scanning geometry of the subjects whole body scanning was the chair. The detector of the whole body counter is tracing the burden activity of the internally dissipated radionuclides in the organs located from the neck down to the knee, i.e. presents about 85-90% of whole body weight.

This thesis is divided into three chapters summarized as given below:

Chapter 1: General introduction is given which includes a review explaining the main causes of internal