RADON AND THORON LEVELS IN HOSTELS AND EFFECTIVE DOSES OF SULAIMAN HALL OF ALIGARH, INDIA

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The environmental radon, thoron and their progeny has been measured in Hostels of Sulaiman Hall of Aligarh of Uttar Pradesh, India. The twin chamber dosimeter cups are used for the study. The concentrations of radon and thoron were found to vary from 24.15 to 197.10 Bq/m^3 with an average of 131.29 Bq/m^3 and 11.70 to 63.16 Bq/m^3 with an average of 39.71 Bq/m^3, respectively. The concentrations of radon and thoron progeny vary from 1.8 mWL to 19.8 mWL with an average of 8.48 mWL and 1.52 to 37.45 mWL with an average of 16.8 mWL, respectively. The effective dose received due to radon, thoron and their progeny by the inhabitants varies from 0.19 to 0.79 mSv/y with an average of 0.5 mSv/y. The effective dose rates due to radon, thoron and progeny were found marginally higher but well below the international recommendations.

Keywords - Effective dose, Radon/thoron and their progeny, Twin Chamber Dosimeter Cups.