Investigation of Annual Effective Dose of Radon in some Fertilizers and Cements

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Abstract

Samples of fertilizer and cement have been analyzed for radon concentration for the measurements; alpha- sensitive CR-39 solid state nuclear track detectors (SSNTD) were used. In this research, to estimate the radon concentration in the fertilizer and cement samples, can technique was used. In the present investigation, the average annual effective doses due to radon from fertilizer samples range from 0.15±0.025147 $mSvyr^{-1}$ to 0.35 ±0.04361 $mSvyr^{-1}$ and the annual effective doses emanated from cement samples vary from 0.16 ± 0.0201 $mSvyr^{-1}$ to 0.97 ± 0.1094 $mSvyr^{-1}$ which are lower than 5 $mSvyr^{-1}$, the annual effective doses fixed for public (ICRP, 2007). It is seen from that the data, the low level of radon in samples typically do not occur health hazards to users as well as the people of that community.

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