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## **Ra-226 on the deterioration crosswalk speed bumps of rural and township ships road in Vhembe region, Limpopo Province.**

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Deterioration of pavement condition near and on the speed, bumps is observed throughout South Africa, mainly in rural and townships area. The material used to construct those speed bumps is found to be radioactive with a considerable dose rate of  $0.9\mu\text{Sv/h}$  compared to the  $1000\mu\text{Sv}$  annual limit for radiation exposure for a public member. The hazard posed by skin exposure from Ra-226 is, therefore, due primarily to its daughter products which include several high-energy alpha, beta, and gamma emissions. Beta radiation significantly contributes to skin dose at the nominal skin depth of  $70\mu\text{m}$  from Ra-226 and its progeny.

Keywords: Ra-226, Skin exposure, Beta radiation, Dose rate, Construction material

### **Apply to be considered for a student ; award (Yes / No)?**

No

### **Level for award;(Hons, MSc, PhD, N/A)?**

N/A

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