

Methods of protection

Time - Cooling off period to let shortlived radioactive isotopes die off.

- Limit exposure time. 40 $\mu\text{Sv/h}$ implies maximum one month of maintenance work per person (20 8-hour days).

Distance - Dose from point source $\sim 1 / \text{distance}^2$

- Dose from linear source $\sim 1 / \text{distance}$
- Dose from infinite plane source does not depend on distance

Shielding - 5 cm of lead cuts down γ -radiation with about a factor 20 (Co - 60).

- The range of 1 MeV β -radiation in lead is about 0.4 mm.

{ Only very thin object < 0.1 mm are expected to give more β -radiation than γ -radiation }