

Working Level (EPA Radon Mitigation Standards)

- A unit of radon decay product exposure rate.
- Any combination of short-lived radon decay products in one liter of air that will result in the ultimate emission of 130,000 MeV of potential alpha energy.
- Approximately the total alpha energy released from the short-lived decay products in equilibrium with 100 pCi of Rn-222 per liter of air.

Equilibrium Ratio (Factor)

- “Ratio of the activity of all the short-lived radon daughters to the activity of the parent radon gas” (Canadian Center for Occupational Health and Safety)
- Radon daughter activities are usually less than the radon activity.
- EPA Radon Mitigation Standards use $ER = 0.5$ to convert radon exposure to WLM.

Working Level Month (EPA Radon Mitigation Standards)

- A unit of exposure used to express the accumulated human exposure to radon decay products.
- $1 \text{ WLM} = 1 \text{ WL exposure for 170 hours}$

Modeling low dose radiation damage

- Single hit process plausible.
- Repair process thought to be percentage of damaged cells.
- Linear approximations good in small regions
- Thus linear, no threshold model.